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Sustainability 2014: The textile industry has a change of heart

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From the editor

Dear Reader,

We want to continue with our New Year's tradition of offering you a look back as well as a glimpse of things to come regarding the changes and developments in sustainability in this first issue of the year. A few days ago, Greenpeace demonstrated once again just how current this theme is and that it will most probably remain so.

The newly published study, detailing which children's clothes still contain toxins, has made two things clear. Firstly that brand and retailer labels stating that items do not contain banned chemicals provide no guarantee that these substances are gone for good, and secondly that environmental organizations like Greenpeace will not stop testing, bringing these issues to light and reporting. More about this topic in our top story.

On a more positive note, there is a lot to report from two large launch events during the 2014 convention season. Both Heimtextil and Domotex reported more exhibitors and many satisfied visitors. A positive trend we would like to see continuing. For example, at the Index 2014, a very important convention in the nonwovens industry, which opens its doors in April and about which we can provide you with first information.

And we are very pleased to present a very personal, exclusive interview with Mr Johann Phillip Dilo. Mr Dilo recounts, quite frankly, his experiences as a German SME in the world market, about "his" machines, their on-going technical development and the future of his company.



In this instalment of the country focus series, we present Myanmar; admittedly not exactly a huge textile country, but one with a lot of potential for a flourishing textile industry. That's why it makes a lot of sense to take a closer look at the most recent developments.

Before we press on, we would like to take this opportunity to thank you for your increasing feedback. We live for your praise and take all your suggestions very much to heart. So please carry on and send us your opinions to **redaktion@texdata.com**.

And now we hope you enjoy reading the latest issue.

Best regards Oliver Schmidt

Top story

Sustainability 2014: The textile industry has a change of heart

"As always, our first edition of the year contains our traditional report on changes relating to sustainability along the textile value chain. We'll take a look back over the past year 2013 and venture a glimpse into the future of what 2014 will hold in the spirit of sustainability.

As the word sustainability can have many different meanings, we'll briefly say a few words on our understanding on it. Sustainability or sustainable development can be understood in the sense of the definition given in the Brundtland Commission of the United Nations on 20 March 1987: "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."



You will perhaps remember that we started our reports on sustainability in line with Kofi Annan's desire for the textile industry and global industry in general to change the world. More than two years have passed since then, and we can start our report by saying that sustainability has been very well received in all sub-branches along the textile value chain and is also taking on ever greater importance here. But there is still a long way to go. And the processes and procedures, which are already going through a positive change, will most likely still need a long time until they lead comprehensively to significant results.

This can be illustrated easily using a current example. Greenpeace published an announcement on 14 January 2014 that they had once again found traces of toxic substances in children's clothing in a study.

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Brundtland Commission of the United Nations

Word for word: "Every brand tested was found to have products containing hazardous chemicals. Among the results one adidas swimsuit contained higher levels of PFOAs than permitted in their own Restricted Substance List [6], while printed fabric on a Primark children's t-shirt contained 11% phthalates. Meanwhile, NPEs were detected in at least one article from every brand with high levels in products made by brands including Disney, American Apparel and Burberry. Once released into the environment, many of these chemicals can have adverse impacts either on human reproductive, hormonal or immune systems."

H&M, as one of the firms affected, whose clothing was named in the study, responded promptly, stating that the item of clothing in question was produced in 2012 and had therefore not been manufactured to the new guidelines. Furthermore, H&M stated: "The levels of PFC that Greenpeace claim to have found in the tested H&M garment were not restricted by H&M at the time of production, nor do they violate any EU restrictions levels. In addition, we have asked an external laboratory to test the exact same product and they have found far lower levels of the substance.

H&M has a ban on PFCs since January 1, 2013. This means that all orders placed from January 1, 2013 or later are produced without PFCs.

The tests that we have made on our products since then also verifies that products produced later than January 2013 are produced without PFCs."

This current case shows clearly that changes require more time than it often appears, and it is very difficult to decide in individual cases what green washing is as alleged by Greenpeace and what is simply due to the time. It is clear that Greenpeace is staying on the ball and is even increasing the pressure. For the first time, social media including Twitter, Facebook and Instagram have also been used. These media make it possible for the environmental organisation to reach around 2 million people directly – a number that is still increasing thanks to the viral distribution through sharing and retweets. It is becoming difficult, if not impossible, to sit it out, and textile manufacturers, trade and brands cannot avoid the subject of sustainability.

And they most probably do not want to either. Sustainability is not just a trend, perhaps not even a major trend. Sustainability is a change of heart. If we look far into the future, we could expect that the first half of the 21st century will be about not further destroying the earth, whilst in the second half we will start repairing the damage that has already been done. Such a concept gives sustainability more structure and makes it clear that sustainability is not just an aspect of the economy, but rather its future.

Two of the major components of sustainable economic activity are environmental protection combined with low resource utilisation, especially finite resources, and social responsibility, which also includes decent wages and correct working conditions.



http://about.hm.com/en/About.html



http://www.roadmaptozero.com





http://www.greenpeace.org

https://twitter.com/Greenpeace

Advertising

It is clear that in terms of these factors, some companies need to make much greater efforts to achieve sustainability than others.

This also goes for the textile industry. Here processes which use chemicals or water are especially affected by the environmental protection aspect, whilst the clothing industry, the actual cutting, making and trimming (CMT), is especially challenged by the social responsibility aspect. In addition, the production plants themselves are also affected, as it not particularly helpful to produce as energy-efficiently as possible only then to have to include a bad CO₂ balance on the individual textile goods due to huge transport routes.

Let us first look at the environmental protection aspects. They primarily affect textile chemistry and the process of wet finishing with dying and drying, as well as finishing items of clothing after completion, as is the case for denim products such as jeans, for example. And they also affect cotton production, as fertilisation, plant protection and irrigation play an important role here.

Textile chemistry

There are therefore unsurprisingly most changes in the textile chemistry segment. The major chemical manufacturers for textile manufacture, such as BASF, Huntsman, DyStar and Archroma, which has emerged from the sale of Clariant's textile chemistry division, are developing new, environmentally friendly solutions.



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"The combination of Gentle Power Bleach™ and AVITERA® [..]not only helped ATB reduce utility and water consumption, it has a lower environmental impact and is a clear demonstration of how collaboration across the textile supply chain can make a positive difference."

Steve Gray, vice president of Marketing and Strategic Planning, ATB

This is often also with partners from the mechanical engineering sector for textile finishing such as Thies, Fongs and Karl Mayer or in cooperation with smaller companies which have developed innovative solutions and processes.

Let us have a look at a few such innovations. In February 2013, Huntsman reported an expansion of its AVITERA® SE spectrum to include Light Red SE for Pale Shades. AVITERA® SE is Huntsman Textile Effects' innovative flagship dye technology for exhaust application on cellulosic fibers and is tailor-made to help businesses make real economic and environment savings. They said: "With dyeing and washing-off processes never exceeding 60°C, AVITERA® SE helps textile mills increase production outputs and significantly reduce water and energy consumption and carbon emissions by up to 50 percent. Using only five percent or less unfixed dye instead of the conventional 15 to 30 percent, AVITERA® SE greatly reduces the number of rinsing baths required to obtain fastness properties." In March 2013 AVITERA® range scored an impressive stellar 5-star rating review (out of a possible 5) in the The Environmental Leader Technology (ELT) review program. Also in March Huntsman Textile Effects launched the PHOBOTEX® range of fluorine-free rain protection and stain management products. The PHOBOTEX® range is entirely complementary to the existing range of Phobol® CP short-chain C6 fluorocarbons, sold under the Teflon® trademark.

This launch further extended Huntsman's comprehensive range of stain management and durable water-repellent products that are fully aligned with many industry benchmarks, including OEKO-TEX, bluesign, aligned with the Zero Discharge of Hazardous Chemicals (ZDHC) joint roadmap and listed chemicals and substances from the Restricted Substances Lists (RSL). PHOBOTEX® are an advanced and comprehensive range of fluorine-free hydro polymers, specifically developed to specifically protect a wide range of textile end-uses against rain and every day stains from ketchup and red wine to mud and grass.

In collaboration with DuPont Industrial Biosciences , Huntsman announced in October 2013 the results of a case study that demonstrates the superior performance of Gentle Power BleachTM, powered by DuPont's first-to-market enzymatic bleaching technology, DuPontTM PrimaGreen® EcoWhite.

The study, conducted between 2006 and 2012, measured significant reductions in water use, energy consumption and chemical use coupled with notable increases in product quality and yield. Portugal's Acabamentos Têxteis de Barcelos (ATB), the nation's leading knitwear dyeing and finishing specialist and one of the largest textile mills in Europe, introduced this technology to their facility with the goal of increasing performance while using fewer resources.

According to a new case study, it worked; between 2006 and 2012, the case study measured an increase in production of 3,380 tons in 2006 to 4,409 tons in 2012, a reduction in water usage of 55 cubic meters of water per ton of fabric produced and a reduction in use of chemicals per ton of fabric produced: 0.55 in 2012 as opposed to 0.74 in 2006.

Steve Gray, vice president of Marketing and Strategic Planning, said the following: "The combination of Gentle Power Bleach[™] and AVITERA® [..]not only helped ATB reduce utility and water consumption, it has a lower environmental impact and is a clear demonstration of how collaboration across the textile supply chain can make a positive difference."

And he also emphasised once again the importance that environmental sustainability has gained in textile chemistry. "The textile industry is undergoing a major push toward greater accountability and sustainability. At Huntsman, we believe that any product we develop needs to be both economically and environmentally sustainable," he said.

These examples show that innovation and research make it possible to develop more and ever better chemicals and processes which can supersede their environmentally harmful and toxic predecessors.

Whilst it was previously just individual processes, Huntsman went one step further at the annual Planet Textiles conference on 22 October in Shanghai. The company presented a high-level overview covering the current environmental issues facing the textile dyeing sector in Asia and introduced a list of dyes and chemicals which do not intentionally contain any of the priority chemical groups under the Joint Roadmap: Towards Zero Discharge of Hazardous Chemicals (ZDHC).



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http://www.huntsman.com/textile_effects





http://www.atb.pt

http://www.planet-textiles.com

With this list, the textile supply chain is now able to supply textiles to companies that have signed up to the 'roadmap', thereby helping to improve environmental performance and economic sustainability. This is a major step. Production in accordance with ZDHC is thus, according to Huntsman's statement, already technically possible.

Let us look at another major chemical manufacturer: BASF. In May BASF announced that it has successfully completed the second phase of registration for REACH under EU chemical law. REACH stands for the Registration, Evaluation, Authorization and Restriction of Chemicals and represents a fundamental reorganization of chemical law in Europe.

REACH requires the registration of all substances manufactured or imported in the EU in quantities starting from 1 ton/year. Producers and importers have the responsibility to demonstrate the safe use of the chemicals in the intended applications based on their hazardous properties, uses, exposures and volumes. Use of a substance will be legal only in registered uses. During the second phase of registration for chemicals

"Our innovative tools and a variety of market-specific sustainability approaches help industries produce their goods more sustainably and increase their brand value significantly,"

Dr. Dirk Voeste, BASF

The near future of textile chemistry for BASF is certainly in Asia. In March, the company announced already: "BASF will re-shape its Leather and Textile Chemicals business with increased focus on the growing Asia Pacific region and high value-adding applications such as applications for the leather automotive industry and premium textile articles. The global R&D activities for both businesses will be established in Shanghai, China."

At BASF, it is quickly becoming clear that textile chemistry is one of many divisions of the company and that the sustainability strategies at group

level are developed for all divisions. For example the company had been a major sponsor of the first European Sustainable Brands Conference in London on 27 – 28 November 2012.

"Our innovative tools and a variety of market-specific sustainability approaches help industries produce their goods more sustainably and increase their brand value significantly," explained Dr. Dirk Voeste, who is responsible for BASF's sustainability strategy. "A good examp-

le is SET, the company's sustainability initiative for the nutrition and health industries."

with a production volume between 100 and 1,000 metric tons per year BASF submitted around 550 substance dossiers to the European Chemicals Agency (ECHA) – more than any other company. Another example which illustrates that BASF can achieve an increase in sustainability, even at the very foundations, with its excellent research and networking, is the following. In a research cooperation the company developed an innovative technology for environmentally sustainable syngas production from carbon dioxide and hydrogen. Together with Linde Group and ThyssenKrupp They aim to employ innovative process technology to use carbon dioxide as a raw material, with positive effects on climate protection. In the first step, an innovative high-temperature technology will process natural gas to obtain hydrogen and carbon. Compared to other processes, this technology produces very little CO2. The hydrogen is then reacted with large volumes of CO2, also from other industrial processes, to give syngas.

A mixture of carbon monoxide and hydrogen, syngas is a key raw material for the chemical industry and is also suitable for producing fuels. Another example is that BASF plans the production of butanediol from renewable feedstock licensing and using the patented Genomatica technology. The one-step fermentation process is based on sugars as a renewable feedstock. "We chose the Genomatica process because we consider it to be exceptionally advanced and reliable," said Sanjeev Gandhi, President of BASF Intermediates division, and added: "In line with our 'We create chemistry' strategy, we aim to offer renewable BDO and create additional value for our customers, in the plastics, textile and automotive industries." BDO and its derivatives are widely used for producing plastics, solvents, electronic chemicals and elastic fibers. For the production of conventional BDO the starting materials are natural gas, butane, butadiene and propylene.



http://www.genomatica.com



http://www.performancechemicals.basf.com

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<u>http://ec.europa.eu/enterprise/sectors/</u> <u>chemicals/reach/index_en.htm</u>



http://www.sustainablebrands.com/ events/sblondon13

And there are also sustainability efforts by BASF which relate specifically to the textile industry. Worthy of mention here in particular is the cooperation between BASF and bluesign, which was announced in July. In the message "BASF adopts bluesign® system for safety and environmental protection in textile chemicals", it was announced: "The textile chemicals product portfolio of BASF is fully compliant with strict consumer safety requirements, for example, the Oeko-Tex Standard 100, and the Restricted Substances List of major retail brands, which are based on stringent global regulations.

In addition, BASF takes this one step further by incorporating several voluntary restrictions on substances. With the adoption of the bluesign® system, BASF provides additional assurance to textile mills, brand owners, and other members of the textile value chain. "

Lütfü Okman, Vice President of Global Business Management, Textile Chemicals, BASF South East Asia, commented the cooperation as follows: "This cooperation with bluesign technologies is aligned with our commitment to 'Putting FUTURE into Textiles', through high standards in environment and safety."

Let us briefly look at the other major suppliers of chemicals.

1 October marked the official launch of Archroma, and the company announced: Archroma is delighted to announce its official launch today as a newly formed global color and specialty chemicals company that comprises the former Textile Specialties, Paper Solutions and Emulsion Products businesses of Clariant.



http://www.clariant.com



http://textiles.archroma.com



http://www.icis.com/awards

From fiber to finish, Archroma's Textile Specialties Business plays a key role throughout the entire textile supply chain, with special chemicals for pre-treatment, dyeing, printing and finishing of textiles. Product packages enhance the properties of apparel and other textiles in applications as diverse as high fashion, home textiles and special technical textiles.

The procedures, chemicals and processes developed by Clariant and taken over by Archroma were already presented in the previous reports. It should also be noted that the ONE WAY service won the ICIS Award 2013 in the 'Best Business Innovation' category.

Archroma's ONE WAY was launched in October 2012 to help customers meet their sustainability targets in a fast and reliable manner. It is a 3step systematic approach to the selection of chemicals and production processes that once completed, gives customers calculation results that assess the cost, performance and environmental profile of the evaluated products and processes. DyStar also continued its sustainability efforts in 2013 and announced a few interesting improvements and collaborations. DyStar announced in May 2013 that its Sustainable Textile Solutions (STS) is a rapidlygrowing business division of DyStar and acted as a service provider for the "Discharge Data Report" that was recently launched by C&A, H&M and G-Star raw. As part of the Joint Roadmap, C&A, G-Star and H&M released a "Discharge Data Report" in February 2013. This reports the results from a pilot study which lasted almost a year, and which aimed to verify whether any chemicals from the 11 priority chemical groups could be detected in the wastewater discharge of selected factories in China, Bangladesh and India. Sustainable Textile Solutions' expert knowledge and experience of coloration chemistry and textile processing supported this benchmark study through an on-site audits, chemical inventory assessment and interpretation of analytical data.

DyStar also announced tangible results for the implementation of sustainable processes, such as the cooperation with the Indian Arvind in July, for example. DyStar Indigo Vat 40% Solution will be used at all Arvind Denim Manufacturing facilities.



http://www.dystar.com





http://www.arvindmills.com



http://www.c-and-a.com/uk/en/corporate/ fileadmin/mediathek/uk-uk/Pressreleases/CSR_ Site/Discharge_Report.pdf

Dedicated teams from DyStar and Arvind Limited Denim Division will work closely together to implement new technologies in indigo dyeing and finishing as well as develop new products, processes and effects for denim fabrics and garments. DyStar Indigo Vat 40% allows a cleaner denim production and a reduction of the Sodium Hydrosulfite usage by 60%-70%.

And also in July the company announced that DyStar® has been cooperating with EPEA Internationale Umweltforschung GmbH since early 2002, in order to apply aspects of the Cradle to Cradle® Design Concept on certain DyStar® products. DyStar® has submitted various product data which have been assessed by EPEA according to EPEA's specific criteria and which result in a "Positive-List" (project related, not publicly available). They include chemicals, materials and auxiliaries which are at least tolerable for inclusion in a Cradle to Cradle® product according to its intended use, depending on available toxicity data.

And that covers textile chemistry. The excerpt of examples shows that textile chemistry as a whole is keeping its efforts very high, in order to offer textile companies new, environmentally friendly solutions and therefore also to be able to implement the demands of major brands.

And an increasing number of textile companies are also using the consultation and certification services of bluesign and Oekotex.

Consultation and certification services

We already briefly introduced the Oekotex certification process STeP last year (see TexData Magazine issue 1 / 2013). As announced, the official launch took place at Texprocess 2013 in Frankfurt. 'Sustainable Textile Production (STeP)' is the new OEKO-TEX® certification system for brands, retail companies and manufacturers from the textile chain who want to communicate their achievements regarding sustainable production to the public in a transparent, credible and clear manner. Certification is possible for production facilities of all processing stages from fibre production, spinning mills, weaving mills, knitting mills to finishing facilities and manufacturers of ready-made textile items.

STeP replaces the previous OEKO-TEX® Standard 1000. The objective of STeP certification is the permanent implementation of environmentally friendly production processes, optimum health and safety and socially acceptable working conditions.

The dynamic further development of the STeP standard and the benchmarks allows certified companies to continuously improve their environmental protection achievements and their social responsibility as well as their efficiency. This in turn enables them to achieve the best possible competitive position on the market.

The prerequisite for STeP certification is the compliance with certain minimum requirements in the individual company areas.

Relevant issues are management of chemicals, environmental protection, environmental management, social Responsibility, quality management and health and safety. The individual requirements as well as plenty of additional information are cited on a website set up especially for Step certification (https://step.oeko-tex.com). They are extensive and demanding. One example is a requirement from the subject area of environmental protection: 'Use of best available production technologies'. This implies that a textile company wanting certification must have a high level of willingness to invest – though the term 'best available' is certainly rather elastic here. In addition, there is a differentiation of how the result of the certification turns out. STeP certification encompasses three different levels describing the extent to which the company has achieved sustainable production and working conditions. Level 1 is the entry level, level 2 means a good implementation with further optimisation potential and level 3 is an exemplary implementation in the sense of a best practice example.

Oekotex says taht the STeP scoring creates more transparency because it allows the sustainability of production facilities along the textile value chain to be compared on all relevant company levels across country borders and beyond legislative regulations.



http://www.bluesign.com



http://step.oeko-tex.com





http://textileexchange.org http://www.baumwollboerse.de

The detailed representation of the assessment results allows a sound definition of the company's positioning with regard to sustainability and illustrates in particular which company areas have further potential for optimisation. Das klingt nachvollziehbar und auch praktikabel.

On 18 July, the first company was certified. Oekotex announced the following: "The Swiss yarn manufacturer Hermann Bühler AG was the very first company worldwide to receive a certificate for sustainable textile production in line with the certification system "Sustainable Textile Production (STeP) by OEKO-TEX®", which was developed by the International OEKO-TEX® Association." In September, the first certification under STeP was then awarded to a German company. Hohenstein Institute certifies the exemplary social responsibility and exceptionally sustainable production at Mattes & Ammann GmbH.

"The result achieved by Mattes & Ammann", explains OEKO-TEX® auditor, Ortrud Weber, of the Hohenstein Institute, "far surpasses the basic requirements for STeP certification and is at a level that reflects current best practice." At the end of January 2014, Oekotex listed a total of eight certified companies. In addition to the companies already mentioned, there is also eterna Mode and Gebrüder Otto Baumwollfeinzwirnerei from Germany, the Swiss weba Weberei Appenzell, Pascual y Bernabeu from Spain, as well as eterna once again and Zornica Banko Fashion from Slovakia. A very recent further development of the STeP systems is mySTeP. The new tool will probably be launched on the market from the summer of 2014. It can be used by all interested companies in the textile industry, regardless of whether they have OEKO-TEX® certification.

After successful setup of a MySTeP account, companies can contact STeP certified production plants within the system and request the release of their data.

The STeP plants decide whether data is displayed to the requesting dashboard user, and if so, which data the user sees. This can include, for example, the complete contact data and the type of production (spinning mill, weaving mill, finishing facility or manufacturer of ready-made clothes), the validity period of the STeP certification and the total score and evaluation of the operation's individual company areas. On request, the STeP certified suppliers can also release the display of additional information such as the audit report from the test institute responsible.

Oekotex has further toughened the requirements of the Oekotex Standard 100. The new regulations come into force on 1 April 2014 for all certifications, following a three-month transition period. For example the specifications for perfluorooctanic acid (PFOA) will become much stricter and four longer-chained, perfluorinated compounds will also be included in the criteria catalogue with the same limit values as PFOA. The reason behind this is the inclusion of the chemicals in the ECHA Candidate List with substances of very high concern (SVHC) as part of the REACh legislation. With these two measures, OEKO-TEX® is specifically supporting the "Zero Discharge of Hazardous Chemicals (ZDHC)" initiative of international brands and retailers that have committed to excluding hazardous chemicals from the production process by 2020. Furthermore, Oekotex provides information about additional toughening and innovations on its website.

We already reported extensively on bluesign in the 1 / 2012 edition. bluesign® considers the production processes as a whole. Therefore, the applied components and processes are thouroughly audited. The aim of our so-called Input Stream Management is for unsustainable substances not to enter the production cycle at all, but to be eliminated first. The crucial point is not the number of manufacturers involved or the number of processing steps. A clean process with sustainable ingredients is decisive at the end of which a marketable product enthuses the customers. In 2013, bluesign was able to gain the services of many new companies from the sectors of brands, manufacturers and chemical suppliers. In addition to the heavyweight BASF already mentioned, from the brands sector this includes Schöffel Sportbekleidung (Germany), ZANIER Sport (Austria) and XD Apparel (The Netherlands), from the fibre manufacturer sector this includes Noble Biomaterials (USA) and Shun Jin Industrial (Taiwan), from the chemical suppliers sector this includes Setas Kimya Sanavi (Turkey) and NICCA CHEMICAL (Japan) and in the textile manufacturers there is Yaw Liamy Enterprise (Taiwan), BRISTEX CO. (Korea), Pratibha Syntex (India) and Feinjersey Betriebsgesellschaft (Austria).

This internationality shows that sustainability covers all textile-producing countries. One reason for this is certainly that brands and retailers are building up a certain market pressure towards greater sustainability.

Events & Conferences

One of the most important events of last year on the subject of sustainability took place in Istanbul in November. In the last edition of the magazine, we already reported on one of its focus topics, "Recycling". The 2013 Textile Sustainability Conference hosted 300 delegates representing the entire textile industry from farmers, manufacturers, input suppliers, brands, and retailers from 40 countries.

Conference attendees, including TE members, represent a driving force for creating meaningful change in the textile industry.

The conference focused on five key themes: Strategy, Sourcing and Supply Chain, Indexes and Standards, Design and Materials, and Chemistry and Processing. For the first time in TE conference history, the sessions were designed to facilitate collaboration, giving attendees the opportunity to co-create solutions. The mix of topics, collaborative working sessions, and people brought both old and new topics to life. The three days of learning and collaboration began with the 2nd annual Organic Cotton Round Table meeting where 100 delegates gathered to have an in depth discussion and to create action items around the organic cotton business model, seed security, and consumer engagement. Regarding the conference as a whole, Phil Chamberlain from C&A stated, "You captured the mood of what is important and what is developing in the sustainable business development space, and once again clearly demonstrated that TE remains the heartbeat of the organic cotton movement."

Following the Round Table meeting were two full power-packed days of conference that brought forth many priorities from the pool of challenges and opportunities. Over the coming year, Textile Exchange will explore a few of these priorities, including Natural versus Synthetic Biology, Closing the Loop, Strategies for Cotton Sustainability, and The Evolution of Integrity.

"ITMA has always been a catalyst for industry competitiveness for over 60 years. Besides the mindset change, we believe that innovative technologies hold the key to environmental sustainability."

Ms Sylvia Phua, CEO of MP International

Following the classification of the key issues, we have focussed especially on reporting on the subjects of chemistry and processing as well as sourcing and supply chain in this article. We already reported on the subject of cotton from a sustainability perspective in the previous edition. Here, we are also expecting plenty of new stimuli from the Bremen Cotton Conference in March, which is giving more attention to the subject of sustainability and is one of the most important events in the cotton industry.

There are plenty more facts and news that can be compiled about the other topics, too. However, we would like to limit ourselves to just few developments by way of example.

In the Indices sector, as well as that of design and materials, the further development of the Higg-Index by the Sustainable Apparel Coalition is certainly worth mentioning. The Higg Index 2.0 is a tool to help organizations standardize how they measure and evaluate environmental performance of apparel products across the supply chain at the brand, product, and facility levels. The Higg Index 2.0 was released on December 11, 2013 and represents a significant step forward based on the work of their Members. It is a suite of sustainability assessment tools that anyone can get started with right away. These assessments, called modules, evaluate impacts through our three different lenses: Facility, Brand, and Product. The new version has been expanded substantially and has become simpler primarily in its handling thanks to its availability as a web tool. On its website, the SAC declares the following: "With the release of the Higg Index 2.0, the Index has reached a mature phase – the Higg Index 2.0 represents a pivot point where the SAC will now focus its resources on enabling widespread adoption of the Index instead of making who-lesale changes to the Index. That said, the index will always evolve and improve over time." A training video is also available.

In terms of the integration of sustainability in corporate strategies, there are a few initiatives which extend beyond the textile industry and affect more or less all industries.

One of these organisations is the World Business Council for Sustainable Development (WBCSD), whose membership list is more like a directory of the global economy. The WBCSD is governed by a Council made up of member company CEO's or their representatives. This Council delegates the management of the organization to the Executive Committee. The WBCSD is launching many initiatives relating to sustainability – for example, FLT 2014. The FLT 2014 will focus on Bridging the Capitals - Accounting for Natural & Social Capital in Business Decision Making. Working in group projects, participants will gain a better understanding of the importance of Social, Natural and Financial Capital, for instance by exploring how social and natural capital considerations can and should be incorporated into financial practices and corporate decision-making.

For this purpose, there are so-called action plans for 2020 and 2050. Regarding the 2020 plan, the website states: "Action2020 – Setting the pace for progress.

Can business be a positive force to solve global environmental and social issues? We say, "Yes" - and we're backing it up with Action2020. Created by the World Business Council for Sustainable Development (WBCSD) and its member companies, Action2020 is our platform for sustainability in action.







http://global100.org

http://www.corporateknights.com

It's the roadmap for how business can positively influence environmental and social trends while strengthening their own resilience to issues like climate change, demographic dynamics and skills shortages. Based on the latest scientific consensus, Action2020 sets an agenda for business to take action on sustainable development to 2020 and beyond."

Worth mentioning is certainly the "Global 100 Most Sustainable Corporations in the World (Global 100) index", which is published by the Toronto-based media and investment advisory company Corporate Knights. In its tenth year, the Global 100 index has come to be recognized as the gold standard in corporate sustainability analysis. Companies named to the Global 100 index are the top overall sustainability performers in their respective industrial sectors. In an announcement on the publication of the index in 2013, it was stated: "Inclusion in the Global 100 index is determined using twelve (12) quantitative sustainability indicators, including the amount of revenue companies generate per unit of energy consumption, the ratio of CEO to average worker salary and lost time injury rate. "The Global 100 follows a rules-based index construction methodology," said Doug Morrow, Managing Director at Corporate Knights.

"We unpackage "sustainability" into its component parts, and build the index from the ground up using clearly defined ratios and performance indicators."

It is also interesting that there is an increasing number of companies in the textile industry which are developing an entire business model around the theme of sustainability. We will report on this further in a future edition.

Finally, let us take another look at the manufacturers of textile machinery. The importance that the subject of sustainability has now gained in the textile machinery industry can already be seen in just one example: the upcoming ITMA 2015 in Milan.



In July 2012 the owner CEMATEX has announced, that ITMA 2015 to drive sustainable innovations in textile and garment machinery. Mr Stephen R Combes, President of CEMATEX, said: "The drive towards sustainability is increasingly integrated with enlightened business practices. The keyword here is 'sustainability', and we hope industry members will join us in this responsible mission to promote more eco-friendly solutions and practices for the entire textile and garment value chain." Miss Maria Avery, Secretary-General of CEMATEX, points out that the ITMA in Barcelona in 2011 already gave a great deal of attention to the subject of sustainability: "In 2011, we introduced several new ideas that have enhanced the participation of all stakeholders. They included the inaugural World Textile Summit and Sustainable Textile Leaders Roundtable Dialogue. These were immensely popular and we intend to continue with them.

We hope to further enhance the relevance and look at how we can better support the green theme." And Ms Sylvia Phua, CEO of MP International which is organising ITMA 2015, added: "ITMA has always been a catalyst for industry competitiveness for over 60 years. Besides the mindset change, we believe that innovative technologies hold the key to environmental sustainability." The ITMA then followed up the announcement with actions in 2013 and now sends the quarterly ITMA Sustainability Bulletin, a report on environmental performance. This is a summary of a few key news items concerning the subjects of sustainability and the textile value chain, over 10 - 12 pages in English, Spanish, Chinese and Turkish. Whether this is the ideal solution as a value driver for more sustainability is certainly a hot topic.

Far more useful would be the idea of Cematex, to add a new sub-chapter, recycled fibres and yarns, to the fibres and yarns chapter created in 2011. Cematex expected that the fibre and yarn chapter will grow at ITMA 2015 in Milan. Together, all of this represents a new beginning, but one must ultimately expect more from CEMATEX, especially since individual associations such as the German VDMA have already been very actively promoting the subject with its 'Blue Competence Initiative' for a very long time now.

Outlook

What can we expect in 2014 in terms of the further development of sustainability and what events are primarily worthy of mention? Let's start with the events. One of the most important events will certainly be the 2014 Textile Exchange Conference. 2014 which will take place in November 10-12, 2014 in Portland, Oregon, USA. For the first time, the conference will be 3 days instead of the traditional 2 days so delegates can have more valuable networking time.

At the AATCC's 2014 International Conference which will be held April 1-3 at the Crowne Plaza Resort in Asheville, NC, Xavier Vital from SGS North America will talk about "Sustainable Textiles Begin with a Sustainable Supply Chain" and Anja Gerhardts from Hohenstein Institute for Textilinnovation GmbH, Germany makes a speech about "New Approaches towards a Sustainable Textile Industry of Tomorrow".

The IARU Sustainability Science Congress, which will take place in Copenhagen, Denmark from October 22nd - 24th 2014 puts focus on research related to global sustainability issues. This international and solutions orientated congress invites experts across disciplines to break down academic barriers and jumpstart a broader collaboration on sustainable solutions relevant for society. Also targeting businesses and policy makers, the congress aims to provide a platform for science-policy interface relevant for global challenges.

We will certainly find some interesting innovations at the ITMA Asia in June and at many other trade fairs such as Intertextile, Texworld or Techtextil North America in May.

And we can easily raise our expectations. More and more people with responsibility are recognising that the subject of sustainability is essential for the future of their company and that even the standards of consumers regarding ecological production and social responsibility are continuing to grow.

We will keep you up to date.

Dilo is a leader in all sectors of needle punch technology?

Interview with: Johann Philipp Dilo

Managing Director Dilo Machines by Oliver Schmidt How hard is it for a German small-to-medium enterprise to position and sell its products throughout the world?

J. P. Dilo: This provides new challenges every day, but is based on a long tradition. After all, my grandfather had already exported a machine to China as early as 1920. The entire history of Dilo and our group is characterized by great efforts to supply the world market. In this endeavour, the traditional values of a German engineering product are helpful: quality, reliability, high performance and good service. However, these properties don't come overnight, but as part of permanent development process.

What makes Dilo products so successful? Why do customers buy your products and not those of your competitors?

J. P. Dilo: In the case of investment goods, such as textile machinery and complete systems, long-term evaluation of the quality of a product is crucial. The above properties are relevant, but also whether the customer obtains a solution for his tasks or even problems or whether this solution will remain good and reliable for many years. Such an investment decision is based on a long-term partnership due to the lifetime of machines which currently amounts to a minimum of 20 years in some cases even 40 to 50 years. During the course of this long period, it ceases to matter whether the level of investment was a few percent higher compared to that of the competition.

Instead, questions of availability and sustainable production efficiency become relevant: maintenance of productivity is a matter of initial quality and reliability of the machine, its innovative advantage and, particularly importantly, whether there is long-term service quality and availability of spare parts.

In which markets – specifically applications - are you particularly successful and do you have an explanation for this?

J. P. Dilo: Dilo is a leader in all sectors of needle punch technology thanks to its systems, individual machines and special solutions. Areas such as the automotive sector, filtration, geotextile fabrics, synthetic leather, wiping cloths, felt and floor coverings are particularly important.

And in which countries?

J. P. Dilo: As with all other German machinery exporters, the main countries are Europe as a whole, North America, Mexico and Brazil, as well as Russia, Asia, Turkey, China, Japan, Korea, Taiwan and India. However the domestic market, with its dynamic nonwovens industry, should not be forgotten.

With the DI-LOOP structuring and patterning technique and the DI-LOUR structuring technique for light and random velours two special technologies in the nonwovens industry bear the name Dilo. Do you see yourself more as an engineer or as a commercial trader?

J. P. Dilo: I am more of an engineer by heart, not least considering my training at TH Darmstadt. This is certainly helpful in a medium-sized technology company addressing many technical tasks.

Being in a responsible position, I have, over the course of my career, learned how important it is to take a commercial perspective. I don't look at this profession solely from the view point of an engineer, as I used to do as a young man, but also see very interesting challenges within commercial tasks that require good solutions to be successful. With this hindsight, it is definitely beneficial if you can take advantage of analytical skills in both disciplines within a leadership position. I was able to develop commercial knowledge with the help of two semesters at university in California and through a practice-based approach to problem solving.

Tell us a more about how you manage, time and again, to incorporate outstanding results from research and development into your products.

J. P. Dilo: The most beautiful aspect of the engineering profession is, as the name suggests (ingenium = gift for inventiveness) to create something new. It begins with a single, new idea which needs to be implemented stepby-step to realize an industrial product. Creative ideas can rarely be forced and cannot often be systematically developed. Rather, they seem to fall, even today, as if "from heaven". This began as a teenager in conversations with my father Richard Dilo, who contributed numerous development ideas to our technology. The DI-LOUR procedure was then perfected by both of us. Today, with increasing process and technology complexity, teamwork is of course important in this overall process. However, it often requires individuals in order to start the ball rolling.

One of today's main issues, in addition to the constant need for productivity, is sustainability. How do you view this issue and what solutions do you offer your customers?

J. P. Dilo: Originally, "sustainability" was used in connection with a forest, where only that quantity of timber that was needed was felled. Transferred to the nonwovens industry, this relates to the topic of using natural fibres as well as, in recent usage, the minimisation of environmental impact through recycling of fibre or raw materials as well as the production of man-made fibres from natural, e.g. biologically derived, materials and also the biodegradability of fibre materials. I'm assuming this is what is meant by "sustainability". A lot has happened in all these sectors. The processing of natural fibre has always been part of nonwoven production, including all the weaknesses associated with natural fibre such as fluctuations in availability and price as well as problems of competition for agricultural land associated with food crops.

Practically all fibre materials can be used in the production of nonwovens, as well as familiar natural fibres, including the hard fibre coir, sisal, as well as jute, flax, hemp, kenaf, wood fibres, often in mixtures with organic fibres for thermal bonding of a fibre substrate.

What would you wish for in terms of sustainability of the nonwovens industry?

J. P. Dilo: Fibre production from bio-plastics demonstrates new ways to create biodegradable fibre materials. Overall, this process toward more sustainability is progressing in our industry as well. The fields of biology and chemistry are instrumental in improving the extraction process and lessening the environmental impact of new fibres on a step-by-step basis.

In 1995, Dilo acquired DiloSpinnbau and a 51% majority stake in Temafa Maschinenfabrik in 2005. Together with its own portfolio expansions, such as MultiFeed, this has made you the sole supplier of complete nonwovens systems worldwide. How do you rate the decisions to expand the portfolio today?

J. P. Dilo: The acquisition of Spinnbau, which began in 1996 and the majority stake in Temafa GmbH in 2005 were significant steps to becoming a total supplier of complete nonwovens systems from one source. Complete refers to complete systems for needle-punched nonwoven production.

The production of needle-punched nonwoven fabric made of staple fibres is the most important branch within the different bonding technologies. This expansion of our program with the establishment and expansion of the system and total system business, e.g. the development from individual machine specialist to general contractor for complete systems, was critical to the positive development of Dilo, which, in addition to the quality of our mechanical engineering, has been an important milestone on our road to success as a leading company within this sector and has had the largest "sustainable" impact. Without this decision and subsequent expansion, we would have shrunk instead of grown as a specialist in needle looms. Temafa, Spinnbau and Dilo represent a group of specialists, each offering marketleading technology. Within coordinated cooperation of all important business fields, it has been the foundation of our great, worldwide success because each group member offers leading technology with its respective single machine program and multiplies this over the total customer value. There are no weak points in our technical components and therefore within our, overall, highly productive, reliable DiloSystems total systems.

At ITMA 2011 in Barcelona, you were the only provider to demonstrate a complete nonwovens production line in operation. One of the latest innovations presented, for example, is the new MultiCard. What can we expect from you at INDEX 2014? **J. P. Dilo:** For many years the Dilo Group has been an important exhibitor at INDEX. It is an important forum for our customers and their product development with a particular focus on the disposables sector. We, as machine manufacturer, are able to participate so that we can remain close to our customers and the needs of the end product market. Real mechanical innovations are less often represented, more often than not they are rather evolutionary, part of a continuous process of further development and improvement through mechanical engineering.

Our MultiCard that you mentioned is indeed a very successful standard, universal carding system for needle-punch lines. As a provider of cards with large working widths and fast operating speeds, Spinnbau has garnered worldwide interest thanks to its high-speed carding technology, used as a so-called direct card for hydro-entanglement and thermal bonding. Priorities are also set in developing crosslappers for large working widths, high input speeds and layering precision. Regarding needle machines, the focus is on new or modified needle arrangements to produce a uniform needle pattern as well as application-oriented, tailormade needle arrangement schemes.

In addition, the complete process of fibre preparation, mixing and opening as well as card feeding, web forming and needling is brought together under the heading of "isomation". This means increasing the uniformity of nonwovens with direct customer benefits of the reduction of the fibre input for equivalent product properties. Aside from this, we are already pursuing intensive research and development work in preparation for ITMA 2015, where innovative solutions regarding machine upgrades and new developments will be presented in Milan.

To what extent has nonwovens technology already been pushed to its limit? Do you see enough potential, let's say over the next 20 years, for improvements to the technology or are modifications of new fibres, such as carbon or sustainable materials, more likely?

J. P. Dilo: Of course, we have a highly developed nonwovens technology with very powerful machines and good end product uniformity. This process of development in the mechanical sector in conjunction with modern electronics, maintenance systems, control processes, operational improvements, performance and quality gains will, as a whole, continue; I do not consider it to have reached its limit. It's amazing just how often new ideas arise allowing us to increase or fine tune productivity, including availability and end product quality, for the many different application areas of nonwoven fabrics. At the same time, as you have rightly stated in your question, we find ourselves in a special situation today, where we possess a high dynamic range within the field of fibre development. Of course, these new fibres will benefit the entire industry. Because of this, there is a constant need for adjustment of existing techniques and technologies in order to adapt to new fibre properties with modified mechanical engineering.

An example of this is of course carbon fibre processing, to which we have dedicated an entire development laboratory. Overall, there is also a constant need for varied settings of existing machines and new total system parameterisation, thanks to the numerous new fibre properties, to find an optimization for web quality and throughput.

As a family-run company, Dilo has now been led by three generations of Dilos. You followed your father Richard Dilo and your grandfather Oskar Dilo. Where do you see your company in 20 years?

J. P. Dilo: Our medium-sized family-run company, situated in a suitable location in Germany, where highly skilled employees contribute, through their work, to our company's overall success is perfectly adapted to the size of our industry. On one hand, it is large enough to cope with demanding technological requirements, on the other hand, it is still small enough to remain flexible and to adapt quickly, as a specialist, to the changing needs of the market. It provides me with great satisfaction to know that I am continuing the tradition of my father, Richard Dilo, and my grandfather, Oskar Dilo and standing on their shoulders, so to speak. Personnel processes are a necessary part of any company wishing to keep a wide range of positions filled over the changing generations and to recruit suitable employees. In this matter, Dilo places strong emphasis on its own training programmes. This area is also subject to on-going development and expansion.

Of course, even our management team uses further development programmes for personnel in order to shape the next generation. This is how we came to know Dr. Gunnar Hemmer, who has been an important employee within sales and marketing management since 1st July, 2013. Personnel development programmes must also be developed on a stepby-step and evolutionary basis. A low turnover rate can provide a good foundation for this and, therefore, "sustainability" in the entire company. To answer your specific question of where I see my company in 20 years, I believe that we will continue to play a significant role within our sector under the guidance of my two daughters.

Mr Dilo, thank you very much for this interview, we wish you the best of luck and every success, both personally and for the Dilo Group.





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Index 2014 reveals outstanding ideas in the field of non-woven fabrics





From 8 – 11 April, the non-woven fabrics industry will be coming together in Geneva for Index 2014, the most important trade fair for technical textiles, especially nonwoven fabrics, besides Techtextil in Frankfurt. A growing global market for the variety of applications and the emergence of additional fields of application for nonwoven fabrics promise an event which will be as interesting as it is successful.

A few figures. 557 exhibitors from 43 countries will be presenting their goods and services at Index at the Palexpo Exhibition & Congress Centre over an exhibition space of more than 50,000m2. With 113 companies, most of the exhibitors come from China, followed by Germany with 97 exhibitors and Italy with 86.

Organised once every three years, at the last edition in 2011, the dynamism of this event brought together some12,600 trade visitors from every continent to see the products and services displayed by over 530 exhibitors. The organizers are expecting this high number of visitors again for the coming Index 2014.

INDEX is the world's showcase for all the latest advances in nonwoven applications development. And INDEX is the ideal event where senior industry professionals worldwide converge, to seek competitive insight, learn about the latest technologies, and network for four days of intensive and convivial business activities. Four days in which to discover new opportunities, identify markets and applications and exchange experiences with like-minded professionals, focusing exclusively on the very best that the nonwovens industry and its suppliers have to offer.

INDEX 14 covers all industry sectors. Whether you're involved in the automotive industry or bio-engineering, construction or furniture manufacture, the sheer diversity and versatility of nonwovens, provide product developers with low-cost, tailored solutions to many of the markets' most complex problems. Some examples of nonwoven applications to be represented at INDEX 14 are Filtration, Packaging, Automotive, Composites, Construction, Civil Engineering, Medical, Home Furnishings, Hygiene and Cleaning & Wipes. In order to live up to such a variety, there are five different sectors: Nonwoven roll goods, Nonwoven applications and materials, Raw materials for nonwovens and ancillaries, Machinery for nonwovens and quite general Services.

The global production of non-woven fabrics is expected to reach around 10 million tonnes by 2016, according to information from the industrial association EDANA. For Europe, the association indicates a production of 1.9 million tonnes for 2011 – an increase of 5.7% compared to the previous year and 10.9% compared to 2009.

In 2011, the main market segments in terms of volume for nonwovens roll goods, were hygiene (31.8%), construction (18.5%), wipes (15.4%) and filtration (4.0%). The European Union has integrated the technical textile industry, and therefore also non-woven fabrics, into its Europe 2020 strategy. The Official Journal of the European Union says in the paper 'Opinion of the European Economic and Social Committee on Growth Driver Technical Textiles': "The sector of technical textiles which registered positive economic and employment trends in the EU is an example of "traditional sectors" able to "reinvent itself" on new business model fully suited to the needs of the new industrial revolution (more smart, more inclusive and more sustainable)."

The EU sees a lot of opportunities for the nonwovens industry. First of all the growing needs of textiles solutions from the end-users, for example comfort and monitoring solutions for active life style, carbon emission reduction in transport (through reduced, weight) and building (through thermal insulation) or the improvement of medical technology (nosocomial disease prevention, implants, health monitoring). Second the close cooperation between producers and customers in order to address very specific needs ("tailor-made solutions") and demand-driven innovation. Third the growing demand for recyclability improvement, like for instance the replacement of foam by nonwovens, composite materials and in-vehicle cabin air filters. And last but not least the quick growth of technical textile consumption per capita worldwide and especially in China, India and Brazil. But there are also some threads like rising energy costs in the EU that could lead to a relocation or growing competition from emerging countries and growing pressure on prices, particularly on mature markets.

The EU report sees the innovative power and the R&D results as a major strength of the industry and the companies involved in Europe, which brings us back to Index, where many of these innovations and new applications are sure to be presented.

Spotlight on the diversity of nonwovens opportunities

Nonwovens are extraordinarily versatile materials and many opportunities for cross-fertilisation exist between some quite diverse end-markets. The aim of the INDEX 14 show will be to illustrate the wide variety of fields in which nonwovens are used, and to illustrate how knowledge and technologies from one field can be successfully employed to provide future inspiration for other industries.

INDEX14 Awards

In November 2013 EDANA has announced the categories for the prestigious INDEX14 awards for innovative achievements in nonwovens. The awards are open to any EDANA member company or INDEX14 exhibitor. The award categories for 2014 include:

- Nonwoven roll goods
- Finished products made from, or incorporating nonwovens
- Achievement for the most original marketing campaign for a product made from, or incorporating nonwovens
- Raw materials or components innovation in a raw material or component (e.g. polymer, fibre, binder, film, tape), (other than nonwoven) of special relevance to the nonwovens industry and related converted products industry
- Innovation in machinery of special relevance to the nonwovens industry
- Sustainable product
- Sustainable process or management practice

The panel of judges will be drawn from the technical, converting, marketing, and policy making sectors, and from the nonwovens press. Entries will be assessed on creative ideas, new technology and innovative products. Judges will first assess the relevance of entries from each category, then select a maximum of three qualifying entries per category.

All qualifying entries will be recognised in a special press release before the INDEX14 exhibition, and the winners chosen from among the qualifying entries will be presented with their Awards at a special ceremony during the exhibition.

This ceremony will be held on 8th April 2014, the first day of the INDEX14 exhibition, and will include a highly publicised launch with media coverage.

Each winner will receive a specially commissioned bronze sculpture and a diploma. The sculpture symbolises the versatility and features of nonwovens made by Olivier Strebelle, the renowned Belgian sculptor whose works are displayed in major cities across Europe, the United States and Asia.

Let us look at a few important exhibitors in the exhibitor programme.

Andritz (Booth No. 2114)

International technology Group ANDRITZ will be presenting its latest nonwovens solutions at INDEX 2014. ANDRITZ combines the expertise of three leaders in the nonwovens and textile industries with long-standing and successful traditions: Asselin-Thibeau, Küsters, and Perfojet.

The key competences lie in wetlaid, spunlace, needlepunch, spunbond, spunjet, air-through bonding, chemical bonding, and finishing technologies. Customized concepts are developed to suit every need. The technologies of the ANDRITZ companies complement each other ideally in process solutions for a great variety of applications. In all processes, ANDRITZ technologists have been working on resources efficiency with regard to electricity, gas, water, chemicals, air management, carbon footprint, and operators. And with the integration of Asselin-Thibeau and its innovative carding technology ANDRITZ can now supply in-house key technologies all along the drylaid production line. An important development is the Isoweb TT card for significant enhancements in CD tensile values, MD/CD ratios, and a commercial speed of 300 m/min. The in-depth experience of ANDRITZ Nonwoven has also led to such major innovative developments as the neXline wetlace, a line concept that integrates ANDRITZ Küsters wetlaid technology with ANDRITZ Perfojet hydroentanglement and which Andritz claimes as ideal process for for the production of flushable wipes. ANDRITZ offers a full range of solutions in spunlace with two proven line concepts.

The neXline spunlace eXcelle combines the latest generation of TT card and Jetlace Essentiel hydroentanglement unit and enables top-speed.

Advertising



Andritz suggests it as the best choice for commodity products like wet wipes, producing lightweight fabrics with less than 20 gsm at very high capacities. For medium capacities Andirtz recommens the neXline spunlace aXcess. It is equipped with one Varioweb in-line card with three doffers in combination with the Jetlace Avantage hydroentanglement unit.

In needlepunch technology, ANDRITZ achieves excellent technical product characteristics with a remarkable reduction in fiber consumption at the same time by integrating the double carding Isoweb technology with proven ProDyn concept, the Dynamic crosslapper, and A50 needlelooms



ANDRITZ - neXline needlepunch pilot line

Visitors to the Andritz booth will have great oppportunity to discuss the best solution for their applications with the Andritz experts. Or, maybe more interesting, they take the chance to follow the Andritz invitation to visit the state-of-the-art technical center for spunlace at ANDRITZ Perfojet (Montbonnot, France) and to see the latest innovations. Andritz guests will have access to an unrivalled spunlace pilot line and can attend various line demonstrations. In addition, process experts will give a detailed presentation of all the equipment forming the spunlace line.

Autefa Solutions (Booth No. 4121)

At INDEX AUTEFA Solutions will inform about material efficiency, energy efficiency and the processing of renewable and recyclable fibers. Index visitors who are interested in lines for the manufacturing of fibers such as flax, bamboo, coconut and ramie should definitely visit the booth and talk to the Autefa specialists. For this application the use of the Aerodynamic Web Forming Machine Airlay Card K12 DIRECT of AUTEFA Solutions is particularly effective here. It is a short and compact machine and enables a gentle fiber treatment. The renewable fibres are used to create voluminous, 3-dimensional nonwoven fibres that are then processed into composites, for example with propylene or polyester in the top and bottom layer. The Airlay Card K12 DIRECT is suitable for the production of top quality webs in a weight range of 80 g/m2 to 6,000 g/m2. Due to the direct transfer from the chute feed to the Airlay Card, without an additional opener, the fibers are gently opened and formed into the nonwoven fabric.



Another key topic at Index will probably be recycling. The prudent handling with fibers is finished, when high-quality fiber material can be refeed to the production process. For nonwoven industry the fiber recycling concept of AUTEFA Solutions offers all components from a single source and enables a competent and effective realisation of the individual steps. Core components of the recycling line are high performance fiber balers and a compact tearing machine.

And also nonwoven producers, who are thinking about modernisation of their machinery to meet the growing demands of the global markets and to remain competitive or have a very special application challenge, are invited to talk to Autefa Solutions. The nonwovens machine specialist offers a broad range of lines and machines to modernize existing installations. Thus the production facilities are more flexible and a better product quality is achieved. For example all machines and installations of AUTEFA Solutions are equipped with efficient and highperformance drive systems. The air control of the individual machines was continuously optimized. By using modern drives and achieving lower load on the filtration plants, energy is saved. Autefa Solutions machines are for example the Webmaster Card which works on basis of a patented double doffer system between the two main card cylinders. It maximizes the production of the cards and improves the blending and fiber distribution on the second cylinder, facilitating improved product quality even at high production rates. The Crosslapper increases the weight of the product and improves the MD/CD ratio and the web strength.With Webmax, minor draft corrections can be made between the card and the Crosslapper. In this way the so-called smile-effect, namely the increased weight of the fabric in the edge areas, created by material shrinkage through drafting and speed accelerations, can be prevented via the Webmax compensation system. This results in a considerable saving of raw material. And the needle loom Stylus is equipped with the innovative Variliptic drive system, which enables high production speeds while also ensuring a gentle needling of the nonwoven fabric.

Brückner

Textile finishing specialist Brückner is also a leader and a pioneer in the field of nonwovens consolidation and nonwovens finishing. The company has heavily influenced and advanced a great number of processes and technologies with its innovative machinery solutions.

Brückner offers a wide range of products for the nonwovens finishing like application systems, flat and vertical dryers, multi-layer dryers, thermofusion lines and airlaid ovens.



BRÜCKNER - Technology Centre

One highlight of Brückner's product range is still their modular system for the bonding and finishing of water-jet bonded nonwovens SUPRA-FLOW BH. The flow-through dryer is particularly energy saving and is characterized by the alternating construction which is typical for BRÜCKNER machines. This provides for an absolutely homogeneous air circulation around the fabric during the complete drying process. Also the temperature distribution remains constant over the complete fabric length and width. The users benefit from the constantly high quality of the products and of the rentability of the line itself.

Furthermore Brückner has a strong position in the sector of heat-recovery and exhaust air cleaning systems to save energy and has been nominated for the Environment Technology Award Baden-Württemberg 2013 in the category energy efficiency. With its energy-efficient textile finishing lines the medium-sized familyowned company supports its customers in their efforts to achieve a resource-saving and sustainable production. At the same time production costs can be reduced and the productivity can be increased. Mainly European customers can thus remain competitive and safeguard in the end jobs.

Very interesting for nonwovens producers shall be Brückner's new technology centre in Leonberg. For interested persons it is any time possible to rent the hall and the machine. In addition the experienced Brückner technologists which have an extensive knowledge of the machines can give valuable hints about the latest technologies.

The new line makes it possible to develop new products, to make tests, evaluate them in the laboratory and to define the exact machine configuration for a later production. An exactly reproducible documentation allows in addition to transfer the parameters to further processes.

Dilo (Booth No. 2010)

The world leader for Nonwovens machinery DiloGroup will provide comprehensive information about the numerous applications of nonwoven fabrics illustrated by various products and their methods of manufacture. As general contractor DiloSystems projects complete production lines for different nonwoven products and applications such as floor coverings, automotive fabrics, geotextiles, filter media, synthetic leather and natural fibre felts.

Furthermore Dilo offers installations for the production of disposables which are used in cosmetics, medicine and hygiene. The DiloGroup has already delivered more than 260 complete production lines for the nonwovens industry. Continuous development in their technical centres ensures that Dilo lines are designed with functionality for the future.

As a strong partner for the nonwovens industry the company always achieves maximum throughput of the projected installations with highest machine efficiency and product quality.

In recent years, numerous new fibres have been created which increase the opportunities for nonwovens. In this regard, there are also new applications for carbon fibre fleeces. To meet these challenges, during last year Dilo installed a laboratory line with a working width of 0.6 m with specially adapted suction and filter technology for small scale evaluation of all fibres including the processing of carbon. This gives fair visitors a great opportunity to talk to the Dilo specialists about their experiences with carbon fibres. And also visitors with plans for small amounts of special fibres or very expensive fibres should visit the Dilo booth and contact the experts, because the laboratory line offers the possibility for tests regarding processability and application.



Dilo Complete Needlefelt Line

Freudenberg Nonwovens (Booth No. 2127)

Freudenberg Nonwovens is presenting innovations in wound care at INDEX 2014. With over 30 years' experience in the medical sector, the company is well prepared to tackle any challenge: A comprehensive portfolio for traditional wound care is complemented by solutions for ostomy applications.

Freudenberg Nonwovens systematically focuses on innovations, from antibacterial finishing to the use of chitosan fibers in advanced wound care products, and offers tailor-made solutions – not just for the medical industry.

In the past knitted fabrics were mainly used to care for wounds; today, though, it is hard to imagine wound care without nonwovens. Freudenberg and its long-standing know-how have been instrumental in bringing about the transition to functional nonwovens as the base material for wound care. The company is is showcasing numerous innovations in the field of traditional and also advanced wound care, where the wound environment must be kept moist. That is why Freudenberg primarily uses highly-absorbent fibers. The material adapts perfectly to fit the wound bed – which makes life much easier for chronic wound sufferers in particular.

One major innovation is the use of chitosan fibers. In combination with hydroactive nonwovens, this biopolymer brings new perspectives for the healing process and is already proving its worth in practice. In the Hygiene segment, Freudenberg offers ultra-light and skin-friendly topsheets, backsheets and acquisition distribution layers for baby diapers, feminine care and adult incontinence applications. These nonwovens have excellent wear comfort thanks to the cotton-like structure. Special solutions such as eco-friendly ADLs complete the product portfolio for the hygiene segment.

Developing extremely light materials is a predominant trend throughout industry in general: Freudenberg has developed an ultra-light product variant of Evolon® with a 3D structure, a material with an extremely soft touch and high volume that also has the cleaning efficiency of a microfilament cloth. The general-purpose microfilament can be used for both wet and dry applications. In the field of acoustic nonwovens the ultralight SoundTex® reduces the thickness and weight of the sound-absorbing material while delivering the same acoustic performance.

The newly-developed bicomponent fine filaments are particularly well suited for use in numerous applications in many industrial sectors. Different polymers can be combined in one filament during the manufacturing process. In addition, these bicomponent fibers can be mixed with monofibers, thus creating several different property profiles for these spunlaids.

The materials can be used in packaging, coating substrates, reinforcements, cover materials, hygiene and cosmetic products, and automotive applications.

Monforts (Booth No. 4121)

Monforts is a world leader in the field of textile finishing and also offers a special range for nonwovens finshing. Furthermore Monforts has special solutions for thermal bonding of PP and fusible fibres at speeds of up to 100 m/min.



At Index the Monforts Technologists from the company's Techtex Division will be in attendance throughout the exhibition offering detailed advice on all aspects of nonwovens coating, finishing, laminating and pre-condensation. Finishing of nonwovens is getting more and more important to address customer requirements and to provide permanent finishes matched to specific needs. These can include ennobling , dyeing and printing, adhesives addition, steaming, grinding, emerising and other permanent treatments. Monforts flagship solution for drying is the new stenter frame 8000. The latest Twin Therm chamber of the Montex 8000 stenter is designed with a number of features and options that are particularly suited for nonwoven and technical textiles applications.

These include a heat recovery module incorporating a fully automatic cleaning system for its integrated heat recovery system; new rotating disc type 'fluff-sieves' and a vacuum system for efficient cleaning; and two parallel integrated exhaust ducts in each chamber.

Another Monforts product for a wide range of technical textiles is the latest, second generation, Eco Applicator system for the application of liquors or functional chemicals. The Eco-Applicator soft coating process offers significant energy savings with reduced liquor for a wide range of applications such as felt finishes, coated materials and medical textiles including Nano coating, water repellancy, softeners, flame retardency and insect repellancy.

Monforts Advanced Technological Centre (ATC).

It has been designed to apply a liquor to one side of the fabric; to apply a liquor to both sides of the fabric; to apply different liquors to either side of the fabric; or to apply two different liquors consecutively to a single side of the fabric.

In 2013 Monforts opened its new Advanced Technological Centre (ATC). Occupying a 1500m2 area, the ATC allows customers in-house opportunities to undertake trials on Monforts dyeing and finishing machines under fully confidential, real production conditions. The new ATC includes comprehensive test facilities; where dyeing and finishing trials can be performed with the customers own woven, knitted or nonwoven fabrics or technical textiles, under full working conditions.

Oerlikon Neumag (Booth No. 2314)

As an engineering company and a leading supplier for a wide range of nonwoven technologies, Oerlikon Neumag can inform visitors at Index about stand-alone machines and turnkey production lines for almost every type of nonwoven product. Oerlikon Neumag offers flexible, high-performance technologies for spunbond, meltblown, airlaid and festooning. In the field of spunbond Oerlikon Neumag sees a large market potential in advanced spunbonds which meet the need for thinner, lighter and more efficient materials in such applications. The company has a special focus on technical solutions for manufacturing bitumen roofing substrates, roofing underlayment, and geotextiles. With regard to the growing chances on this sector Oerlikon Neumag offers an efficient one-step spunbond process which considerably lowers the manufacturing costs. The company supplies the complete process, from spinning to the rolled goods.

In the meltblown sector Oerlikon Neumag last year has started to expanding their product line and, apart from their stand-alone plants, they are also offering their meltblown technology to be subsequently integrated into existing or new, outside vendor SXS plants.



OERLIKON-NEUMAG - Airlaid technology

The new 'Plug & Produce solution' enables a cost-efficient upgrading of new or existing spunbond plants and offers nonwoven producers access to markets with high quality demands.

Due to the numerous processible polymers and producible fiber finenesses, a wide product spectrum can be covered with the Oerlikon Meltblown Technology, announced the company.

In the airlaid sector the company introduced in 2013 a newly developed forming head to setting new standards in the production of extremely thin airlaid webs. With the new forming head, not only very light airlaid materials, but also combination webs, fully utilizing the plant capacity and simultaneously saving raw materials, can be produced.

PGI

Polymer Group Inc. (PGI) is the world's largest nonwovens manufacturer and comes with products in nearly every sector of nonwovens application. In November 2013 PCI completed the aquisition of Fibreweb and Fiberweb's unique offerings in Filtration, Building and Construction, Agriculture, Healthcare, Technical Fabrics, Geosynthetics and Hygiene complements PGI's established presence across Hygiene, Healthcare, Wipes and Industrial markets. Customers of both companies are expected to benefit from PGI's expanded global presence and portfolio of products and services. End of January 2014 PGI has signed a definitive agreement to acquire a controlling interest in Companhia Providencia Industria e Comercio ("Providencia"), a Brazilian manufacturer of nonwovens used in hygiene, healthcare and industrial applications and at the end of February the company announced an investment of approximately \$8 million to upgrade machinery and expand its manufacturing plant in Waynesboro, Va to accelerating growth in PGI's core business filtration.

This strategic investment along with the recent acquisition of Fiberweb, expands PGI's spunmelt capabilities and increases PGI's filtration portfolio to include production and development assets for two nanofiber technologies.

At Index 2011 PGI has won two Index awards. In the category "Finished products made from, or incorporating nonwovens" they have been awarded for their "SafeCover TM Insect Repellent Blanket" and they have got a special award for their PGI Sustainability Process. The jury applauded PGI's sustainability reporting process for its ambition and continued effort over several years.

The growth and the strength of PGI promises visitors to be impressed by a huge range of applications and probable some interesting innovations.

Sandler (Booth No. 2431)

Nonwoven maker Sandler invites visitors to experience the fascination with nonwovens. The Bavarian company celebrates its 135 anniversary this year and presents a new booth at Index with a modern, light-filled house, clear lines, an elegant minimalist design, a terrace fitted with lounge furniture and a large garden. Apart from hygiene products, the company also puts a focus on nonwovens for technical applications in its trade fair presentation.

In the garden people are invited to "feel the difference": sample collections showcase Sandler's latest developments for automotive applications, filtration, technical insulation, hygiene and wipes. In all applications, nonwoven distribution layers providing excellent fluid management are becoming a talking point:

They reliably absorb fluid and quickly transport it to the absorbent core. In baby diapers and incontinence products extensible sawabond® and sawasoft® nonwovens as well as elastic sawaflex® composites create room to move. In diaper ears and other closure systems these air-permeable nonwovens combine a textile feel and facilitate optimum fit. The year 2013 has been very succesfull for Sandler. They recently announced record sales with a volume of 274 million Euros, manufacturing approximately 100,000 tonnes of nonwovens. This sales figure corresponds to a 10 percent year-on-year increase—a result better than expected, even to the company management. The Sandler team also grew in 2013: a staff of 600 now works in Schwarzenbach. Sandler achieved very good results in all market segments from nonwovens for hygiene applications and wipes substrates for care and cleaning to technical applications in the automobile, in industrial and household uses, in construction and technical insulation, through to nonwovens for home textiles and office acoustics.

In 2013, the company again expanded its production capacities: With a 15million-Euro investment in the production line "VS 32", Sandler expanded its capacities for the manufacture of nonwovens for technical applications. Conceptualised by Sandler, the new line produces voluminous roll goods and sheet material. To this end, it employs thermal bonding, needlepunching and the combination of both processes, creating a versatile range of nonwovens.

Filter media and nonwovens for home textiles are on the production schedule but the main focus is on lightweight, easy-to-handle insulation materials. In residential buildings, these nonwovens efficiently prevent heat loss through roof and walls; in offices they create a quiet working atmosphere. The common denominator is a large inner surface, facilitating excellent sound and heat insulation. In 2014 exploiting new areas of application for nonwovens will again be a main focus of Sandler's activities.

New developments in the field of composite materials will also be of great interest. On the re-designed company website for the first time, members of the Sandler team introduce themselves as direct contacts. Maybe a good idea to make appointments in preparation of the fair.

Trevira

Fibre specialties for nonwoven applications and technical textiles producer Trevira presents polyester and bicomponent fibres for nonwoven applications in hygiene products, filtration, insulation, construction, the paper industry, composites and other materials. To meet the needs of manufacturers of non-woven products, the company offers a wide range of special fibre types.

These prove to be both effective and indispensable in the hygiene industry and other special applications. Trevira's product range for technical applications is completed by a vast range of flat and textured filament yarns, either in raw white, spun-dyed or yarn-dyed. They include permanently flame retardant types and hybrid versions with a low-melt component as well as elastic yarns and suit all kinds of specific technical applications. Trevira staple fibres for nonwovens includes for example Bicomponent fibres for thermal bonding (used in hy giene products such as napkins and lady care, as well as in technical nonwovens, e.g. for insulation and filtration materials in the automotive sector), short cut fibres for airlaid and wetlaid applications (hygiene products or the paper industry), permanently flame retardant fibres for nonwoven applications (e.g. for insulation, filtration and also as filling fibres for bedding) and special types for hydro-entangled nonwovens which are not only employed in the manufacture of wet and cosmetic wipes, but also increasingly in technical end uses.

Of a special interest for visitors will probably be the PLA fibres (Ingeo[™]): The biodegradable (compostable) fibres made from renewable plant compounds are currently available in various versions. Trevira is producing different types applicable for spunlace, wetlaid and carding applications. Possible end uses are wet wipes (e.g. cleaning cloths), hygiene products and technical nonwovens.

Trützschler Nonwovens & Man made fibres (Booth No. 2331)

Trützschler Nonwovens comes with partners to the INDEX 2014 and will inform about its technological advantages in the fields of wires, machines and nonwoven lines. The three companies Trützschler Nonwovens & Man-Made Fibers, Trützschler Card Clothing and Voith Paper will share booth #2331 at Geneva to present new and proven technologies for efficiently producing high-quality, differentiated nonwovens. Trützschler Nonwovens & Man-Made Fibers presents two tailor-made, new components: the highly productive Streamliner, an air-trough dryer with highest drying performance, and the automatic surface winder BWT 203-30 which is especially designed for spunlacing lines.

The Streamliner drum dryer stands out due to its high evaporation capacity and a production speed of 400 m/min in hydroentangling lines. This dryer type ensures a substantial increase in productivity by lowering energy consumption by up to 30% at the same time.

The new, spiral design features an optimal air guidance and is of particular interest in the production of spunlaced nonwovens with a high residual water content.

The product range Bastian added the new, fully automatic horizontal slide winder BWT 203-30 to the portfolio. This circumferentially driven winder is an energyefficient, operator-friendly winding solution for spunlace lines with a reduced erection and start-up time.

Another focus of booth #2331 will be on complete production lines from fiber opening, web forming and web bonding down to winding. Voith Paper, the cooperation partner, will answer all questions about wetlaid nonwoven plants for flushable wipes and other final applications. Basically all fibers can be wet-laid on the HydroFormer, provided they are dispersible in water and do not exceed a certain length in relation to diameter. Recovery and preparation of these fibers also belong to Voith Paper's core competences.

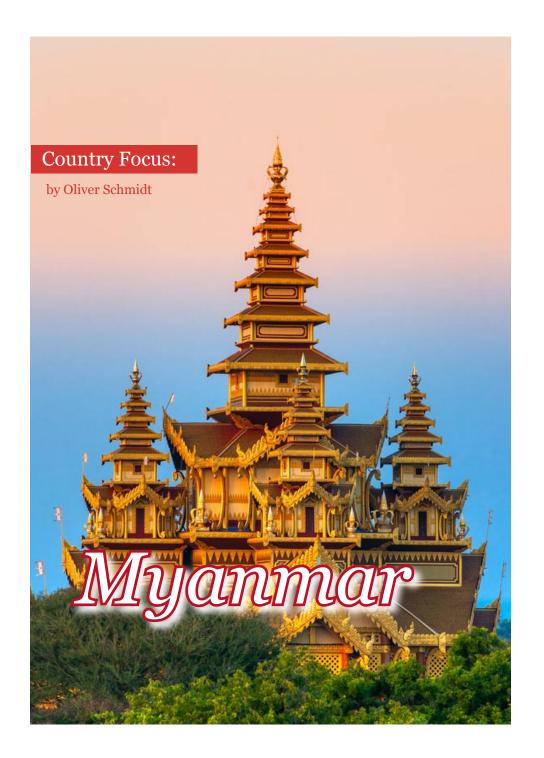


Trützschler Nonwovens & Man-Made Fibers Streamliner drum dryer

Trützschler Card Clothing has broadened the product range of surface treated metallic wires. Wires with code "B" are now available expressly for hygienic applications for the use on cylinder, random roller and doffer. The new doffer wire NovoDoff with 450 ppsi is designed especially for hydroentangled light weight nonwovens and is most suitable for longstaple fibres, due to optimized transfer properties.

Outlook

The announced programmes and innovations of the exhibitors, as well as the Index Awards, will really whet your appetite for Index 2014. Not everything has been revealed yet, and it will be exciting to see which applications have been improved or perhaps even completely redesigned. We will be glad to inform you about it in our trade fair report in the next issue.



A lot has changed in Myanmar, officially the Republic of the Union of Myanmar, since the 11th February 2011 which saw the appointment of a civil president and the beginning of democratisation; the country is moving on and making a fresh start following a decade of harsh sanctions against the military rule.

Located in the South-East Asian textile-producing region, its neighbours include China, India, Bangladesh, Thailand and Laos; Myanmar once had a very strong textile industry, which in 2001 was still the country's biggest export with \$829 million US dollars followed by natural gas. The country has a lot of potential to develop a flourishing textile and clothing industry in the next few years. So, that's reason enough to dedicate a country focus to Myanmar.

But first things first. Myanmar was established on the 4th January 1948 after gaining independence from Great Britain. The country spans 676.578 km² and has a population of about 55 million. This figure and also the 81.5 inhabitants per km² are well below that of its neighbouring countries: Thailand (135 inhabitants per km²) and Vietnam (280 inhabitants per km²). Myanmar is a multiethnic state with 135 different ethnic groups. The Burmese represent the largest group with 69%, followed by the Shan (8.5%), the Karen people (Christians) (6.2%) and the Rohingya (Muslims) (4.5%). Approximately 45% of the population is under the age of 24 with only about 5% over the age of 65. The illiteracy rate is at 8%; in 2011, the country had a total of 134,624 graduates. This shows that, alongside other investments, there is an urgent need for investment in education and training.

Regarding its economy, Myanmar is a developing country with average earnings of 1400€ (2010) per capita, making it one of the poorest countries in the world. The GDP per capita stood at \$824 US dollars in 2011, \$835 US dollars in 2012 and according to projections by the IMF for 2013, it will stand at \$915 US dollars. These figures place Myanmar at 161 of 186 countries. On the other hand, Myanmar is a country rich in resources; for example, it has the biggest natural gas reserves in South-East Asia as well as a large portion of agricultural land.

Alongside political reforms, the government has also initiated sweeping economic reforms since summer 2011.

By the end of January 2011 the constitution (Art. 35) had come into force, setting out that Myanmar was to follow a market-based system and that nationalising companies would be excluded.

The reforms include steps to standardise the exchange rate, to pass new economic bills (including laws on investments and microfinance) and to gradually modernise the finance sector. Since April 2012, the local currency, 'the Kyat', has been subject to a 'managed floating system'. The exchange rate initially stood at 822 Kyat to the dollar and now stands at 981 Kyat to the dollar (+19.3%). What's more, the artificial currency FEC (Foreign Exchange Certificate), which until then was used as the equivalent to the dollar, was abandoned in July 2013.

According to Germany Trade & Invest, with these changes, Myanmar achieved economic growth of 6.3%-6.5% between 2011 and 2013, which equates to an increase in the nominal GDP from \$51.4 billion US dollars in 2011 to over \$53.1 billion US dollars (2012) to \$57.4 billon US dollars in 2013. Germany Trade and Invest forecasts a GDP of \$62.2 billion US dollars (+8.3%) for 2014. Other projections only differ slightly. The World Fact Book published by the CIA forecasts a GDP of \$54.53 billion US dollars in 2012 and the International Monetary Fund sees in the World Economic Outlook economic growth of 6.8% in 2013, 6.9% in 2014 and 7.1% in 2015.

Myanmar is a member state of the World Trade Organisation as well as regional associations such as ASEAN, BIMSTEC and the Greater Mekong Subregion Cooperation Programme. After years of deadlock, the country wants to make friends with the economic boom regions of South-East Asia. Their most important trade partners are Thailand, China, Korea, Japan, India, Bangladesh and Singapore. In 2012, Myanmar imported a total of \$11.6 billion US dollars (+19%) in goods and exported \$9.6 billion US dollars (+2.3%). In 2013, imports increased by 10.7% to \$12.9 billion US dollars and exports also rose to \$11.3 billion US dollars (+16.9%). The most significant imports are crude oil (22.4%), machinery (13.9%) and chemical products (11.6%). The biggest exports are food stuff (18.6%), followed by raw materials (11.7%).

Experts see an increase in the export of raw materials, especially natural gas, in the years to come as the most important source of economic growth for the country. With 21.3 trillion cubic feet, Myanmar has the largest known gas reserves in South-East Asia and the quantity extracted increases year on year. Myanmar ranks 14 on the ranking of gas-exporting countries; Daily gas production currently amounts to 1.447 billion cubic feet of gas and is set to increase by more than 50% to 2.235 billion cubic feet by 2015.

Unlike foreign trade with its neighbouring countries and other South-East Asian countries, trade with the EU is very low and amounted to not more than \$232 million US dollars in imports and \$164 million US dollars in exports to the EU in 2012. This is because of years of suspended trade. The EU's trade preferences had been suspended in 1997 as a result of the country's serious and systematic violations of core international conventions on forced labour.

Myanmar was reinstated into the GSP tariff preferences on 19 July 2013, in response to the process of political and economic reform since 2011 and following the decision by the Conference of the International Labour Organisation to suspend its restrictive resolution on Myanmar in June 2012. The EU announced: "As a Least Developed Country (LDC), Myanmar/ Burma benefits from the most favorable regime available under the EU's Generalised Scheme of Preferences (GSP), namely the Everything But Arms (EBA) scheme. The Everything But Arms scheme gives the 50 Least Developed Countries - including Myanmar/Burma - duty free access to the EU for export of all products, except arms and ammunition."

With the revised GSP plus agreement, exports to the EU had already increased by 41.5% in the first half of 2013 and imports by 97.5%. In addition to trade with the EU, trade with the US is crucial to ensure a further upswing. On 26th September 2012 Mrs Clinton told the Myanmar President in New York: "The United States is taking the next step in normalizing our commercial relationship".

Besides trading raw materials, the development of infrastructure and industries capable of competing are vital for Myanmar. This means large investments are required. In November 2012, Parliament passed a new law concerning foreign investment. Essentially, investors can hold 100% capital share in a business, in specifically defined business areas the maximum amount of holdings permitted is currently 80%. Foreign investments in areas, such as the arms industry and power supply grid businesses, are excluded. In an overwhelming number of businesses in the foodstuffs industry, the chemical and pharmaceutical industry, the construction industry and transportation, only investments in the form of a joint venture are permitted.

Crucial steps have been taken by the government over the last 3 years in terms of economic development. Ms. Christine Lagarde, Managing Director of the International Monetary Fund (IMF), made the following statement in Yangon at the conclusion of her visit to Myanmar in December 2013: "Myanmar today stands at the portal of a new world, a world brimming with promise, potential, and prosperity. It is undergoing a great awakening, a great opening to the world and all that it has to offer.[...] As a true daughter of Asia, Myanmar has also come a long way in a short period. It has already gained the macroeconomic stability that forms the basis of economic liftoff. For sure, it is still fragile, and needs stronger institutional underpinning, but the groundwork has been laid. The next step is to build on these gains and take the path of sustained, strong, and inclusive growth-to lower poverty and lift the prospects of everyone in Myanmar. [...] I believe this path has three key dimensions: Invest, include, integrate. I can assure you of this: we are with you for the long haul. We will be here to serve you, to help you, to partner with you, as you step up to seize the inheritance that is rightfully yours. For Myanmar is truly a golden land with a golden future."

Let's take a look at the textile and clothing industry. This is comprised of state and privately owned companies. The state textile industry is located in the newly created Ministry of Industry. With the aim to strengthen the organizations and effective managements on Ministry of Industry No. (1) and Ministry of Industry No. (2), Ministry of Industry was newly reorganized with the combination of those Ministries since 2nd December 2011. The newly reformed Ministry of Industry is organized with three Directorates, six Enterprises, one Central Research & Development Center (CR&DC) and Central Department of Small & Medium Enterprise Development. Textile Industries (TI) is one of the enterprises. Textile Industries (TI) has been in continuous operation since 1972, when it was established as Textile Industries Corporation. It was renamed the Myanma Textile Industries (MTI) in 1989. The current name, Textile Industries, was adopted on 4th April 2012. Today, it is emerged as Textile Industries (TI) and being operated as a manufacture of textile products by 11 main textile factories and 7 branch textile factories. TI is leading manufacturers of textile, clothings and apparels for only domestic market.

According to Germany Trade & Invest, Myanmar's privately-owned textile and clothing industrie emerged at the beginning of the 1990's and its functions are limited to tailoring and sewing (CMT or CMP). Before economic sanctions imposed by the USA, the country had about 400 companies with 400,000 employees but then decreased to around 130 companies with 100,000 employees; this is because the US was one of Myanmar's biggest export countries. More than 90 percent of Myanmar's garment exports had gone to the United States before Washington imposed the sanctions. BharatTextile announced on theier website that the semiofficial weekly Myanmar Times reported on June 22 in its latest issue that Myanmar's garment exports fell 34 percent from a year before to \$216 million in the fiscal year 2004-2005 ending March 31. Prior to the sanctions, the amount of clothing exports supplied totalled \$829 million US dollars in 2001.

With the democratisation of the country, the clothing industry quickly picked up pace once again. Exports rose from \$491 US dollars in 2010 to over \$744 US dollars (+58%) in 2011 to \$836 US dollars (+8%) in 2012. Insight Alpha, a business portal for Indian investors reported on this: "The ongoing quest for low cost production has drawn manufacturers' attention to the clothing industry in Myanmar. The country has a long history of making yarn, fabric and garment." Und weiter: "Since the US has planned to lift most of the trade sanctions on Myanmar, the garment manufacturers anticipate a lot of demand in the coming years."

By way of comparison: In 2012 the Vietnam Chamber of Commerce and Industry (VCCI) reported in mid January that exports of textiles and garments had been able to grow 12 percent to a total of 15.8 billion US\$.

Dr. Aung Kyaw Soe, Managing Director at Textile Industries, gave a comprehensive overview of the textile industry and the textile value chain in his talk "Overview of Myanmar Textile Industries and Investment Opportunity for Thai Investors" on 4th October, 2012 in Bangkok (Thailand). According to this, the country has over around 82,150 hectares (203,000 acres) of acreage for cotton. Nevertheless, the Bremen Cotton Exchanges stated in its annual report of as many as 349,000 hectares and a yield of 203,000 tonnes. The Bremen Cotton Exchange set the yield per hectare at 581kg/hectare for the cotton year 2011/2012. Therefore, Myanmar produces as much cotton as the cotton-producing country, Syria, and more than any African country.

According to Dr Aung Kyam Soe, for the further processing of cotton, the country has a total of 1102 cotton spinning machines with 480,840 spindles, with which 35,185 tonnes of yarn are produced annually. More than half of the cotton spinning machines, 602 with 270,720 spindles, are assigned to the textile industry and produce 18,254 tonnes. The picture is very different concerning the allocation of power looms, with 88% being shuttle looms. The textile industry only has a total of 18,888 power looms, with which 187 million metres of cotton can be produced. The picture concerning the Finishing machines doesn't look very good. The textile industry has 2 factories; in total, there are 4, with which 22.3 million metres of cloth can be finished. You can also see the number of textile industry.

Dr. Soe believes that there is a great need for all machinery to be modernised so that the country's textile industry can really advance further. This is where European mechanical engineers may be able to help with their modern machinery with Germany, Switzerland, Italy and France leading the way. To increase business ties, some German companies went to Myanmar on an official visit in December 2013 on the initiative of the German Engineering Federation (VDMA) and under the guidance of the German-Asia Pacific Business Association (OVA), which has an office in Yangon. One of the participants, Dirk Polchow, manager of the German company INTERSPA-RE, which manufacture finishing machines under the brand names Krantz and Artos, came to a similar conclusion as Dr. Soe in a press release :

"What impressed me is that the land and the people I met radiate a great spirit of optimism and show a lot of readiness to successfully continue the process of change, which is already underway. The clothing and textile industry certainly has a lot of potential, but, in its current state, is not competitive enough internationally and probably needs to be completely rebuilt."

This applies above all to the textile industry. For the production of clothing, a further 364 million metres of cloth is needed in addition to the 22 million metres currently produced in Myanmar and an overwhelming proportion of this will have to be imported according to Dr. Soe.

According to Germany Trade and Invest (the source being "The Myanmar Times"), the Myanmar Garment Manufacturers Association (MGMA) has just over 300 member companies and a study conducted by the University of Malaya states that there are 130 registered companies in this sector with 23,789 sewing machines.

MGMA assumes that hundreds of new companies will emerge in the next few years and expects that there will be considerable investment from European and primarily Asian countries, such as Thailand, Japan, Hong Kong and South Korea. According to Germany Trade and Invest, the main objective is 700 new factories and over 100,000 employees.

For the implementation of these ambitious objectives, in addition to its competitive edge due to low labour costs, which the Thai market research institution, 'Kasikorn Research', sees as a decisive factor in attracting businesses to this location, Myanmar also offers various ways of setting up a business ranging from interest by way of a joint venture to a 100% ownership structure, tax advantages of various types and the waivering of import duties e.g. machinery, the leasing of reasonably-priced land with long terms of 50 years or more, the employment of expatriates and also Special Economic Zones (SEZ) in the regions of Dawei, Kyaukphyu and Thilawa, which are intended to provide even better conditions and longer terms.

Criteria for Foreign Direct Investment in Myanmar are protection to investors, environmental protection, social impact protection, transparency and accountability in financial matters, job creation, corporate social responsibility (CSR) and technology transfer. German Invest considers Thilawa to be the forerunner and the textile stronghold of the country due to its proximity to Yangon. The measures are proving to be successful and stimulating demand. By 31.8,12, the government had granted permission for 179 new companies to start up businesses in the manufacturing sector with an investment of \$1830 million US dollars. According to a report by Dr. Aung Kyaw Soe, a further \$627 million US dollars were generated through investment by 90 already existing companies. The textile and clothing industry also benefit from the fact that the Ministry gives priority to labour-intensive industries. Other favourites are resource-based value-added industries und heavy and hi-tech industries. In December 2012 Myanmar hosted its first industrial textile fair, the 'Myanmar International Textile & Garment Industry Exhibition 2012' with exhibitors from all over the world. Also in December Japan and Myanmar have signed a memorandum of understanding (MoU). They will cooperate for developing the special economic zone (SEZ) Thilawa. In March 2013 Thailand and Myanmar arranged an exhibition in Yangon displaying the traditional textiles of the two countries which has been part of the celebration of the 65th anniversary of relations of the Southeast Asean nations.

In June 2013 India's Union Minister of Commerce Industry and Textiles, Shri Anand Sharma offered help and a Line of Credit (5 million US\$) for revival of 300 apparel factories in Myanmar during his meeting with the Myanmar President U Thein Sein. In August 2013 Myanmar Consult announced "that Myanmar Investment Commission (MIC) has granted permission to companies from China, Hong Kong, and Taiwan to do business in local CMP garment industry with 100% foreign investments, according to official data." And in September 2013 Teijin, a technology-driven global group, announced that it will establish a Teijin Frontier company in Yangon. Teijin Frontier is a fiber-products converting company.

The short extracts from reports show that the step-by-step plan for development and expansion addresses the worldwide clothing industry and that Myanmar is on the way to becoming a textile-producing country. With that said, the development of other important industries, such as the energy supply industry and the construction industry must also be addressed. The development of infrastructure is just as important as the training of qualified and skilled workers. So that this is possible, the TÜV Rheinland foundation is working together with the MGMA to provide development aid. The two organisations implemented a six-month training initiative from July to December 2013.

The aim of this is to achieve high work standards whilst at the same time increasing productivity and thus to train the participants so that they may eventually meet the standards required for the EU market. The initiative is set to continue and Prof. Bruno O. Braun, chairman of the TÜV Rheinland foundation, also hopes so see further training from within the members of the MGMA. His wish: We would like to ask the member companies of the MGMA to pool their strengths and to share their best practices with each other in a structured manner. Improving the image of the entire clothing sector in Myanmar will certainly make it easier for individual companies to enter the European markets.

Sequa (German non-profit organisation), a globally operating development organisation that has carried out projects and programmes of international cooperation in close collaboration with the German private sector since 1991, also adopts a very interesting approach.

To intensify their work and advocacy on sustainable development in Myanmar, sequa is leading a consortium of partner-institutions including UK's Sheffield Chamber of Commerce and Industry, Confederation of the German Textile and Fashion Industry, the Republic of the Union of Myanmar Federation of Chambers of Commerce in Myanmar Business (UMF-CCI), Association of Development Financing Institutions in Asia and the Pacific (ADFIAP) and the Myanmar Garment Manufacturers Association (MGMA) since January 2013. SMART Myanmar actively promotes and supports the sustainable production of garments "made in Myanmar" striving to increase the international competitiveness of Small and Medium Enterprises (SME's) in this sector.

Working closely with companies and business support organisations located in Myanmar, the SMART project aims to build capacity and increase skills and knowledge in local partner organisations, facilitating the development of marketing and export strategies for the garment sector. The project will make an important contribution to shaping Myanmar's sustainable economic development. In order to support and promote the socially responsible and resource efficient production of garments, Sustainable Consumption and Production (SCP) consultants will be engaged and trained for the Myanmar service market on the subject of SCP audits including energy, waste and water management, SCP and social dialogue. This will increase the sustainability and competitiveness of SMEs in Myanmar. At the same time, the demand for SCP business services will be stimulated and the SCP business service offer will be developed on a sustainable basis.

To develop a sustainable textile and clothing industry encompassing an entirely new sense of the word sustainability, which incorporates protecting the environment and social responsibility, is probably the country's best hope. That's the advantage of being a late starter. You can learn from the mistakes that others have made and avoid them. And with this positive outlook, we would like to conclude our country focus.

Heimtextil 2014: Fresh ideas provoked optimistic mood in the sector

"With further growth in the number of exhibitors and more visitors, Heimtextil provided a successful start to the new furnishing season. From 8 to 11 January 2014, almost 67,000 trade visitors (2013: 65,835[1]) from 133 countries saw the latest products of the 2,718 international exhibitors from 61 nations (2013: 2,616[1]).

"In addition to the excellent statistics, the quality and enormous spectrum of products underscore the unique position of Heimtextil as the world's leading trade fair for home and contract textiles", says Detlef Braun, Member of the Executive Board of Messe Frankfurt, summing up the results of the event.

Once again, the results of the fair were rated very highly on both the visitor and exhibitor sides. 94 percent of visitors (2013: 94 percent) said they had achieved their goals for the fair, which confirms the high standard of Heimtextil exhibitors. In turn, the bulk of exhibitors were very pleased with the visitor quality – 79 percent reported that they had achieved their targets for the fair (2013: 78 percent). The economic recovery in the last quarter of 2013 was also reflected by the market-research results: 78 percent of exhibitors (2013: 69 percent) and 81 percent of visitors (2013: 79 percent) said the current economic situation in the sector was satisfactory to good.

The high degree of internationality continues to be one of the key features of Heimtextil: just over 66 percent of visitors (2013: 66 percent) and 88 percent of exhibitors (2013: 88 percent) came from outside Germany with particular growth being noted from Scandinavia, East Europe, South America and South Korea. The biggest visitor nations after Germany were Italy, Turkey, China, Great Britain, the USA, France, Spain, Poland and the Netherlands.

"Fascinating trends effectively presented, satisfied exhibitors and enthusiastic visitors", was how Martin Auerbach, Director General of the Association of the German Home Textile Industry (Verband der Deutschen Heimtextilien-Industrie), Wuppertal, summed up the fair. "Improvements were also made to the very well attended 'Contract Square' lecture area, a textile oasis where participants sat on design classics. Also extremely satisfied were the bedding manufacturers from the fully booked-up Hall 8. With their own trend show and interesting lectures, the DecoTeam attracted a large number of visitors to Hall 3.0."

Heimtextil Trend Show with an astonishing variety of textiles

Whether playful interactivity, scientific depth, contemplative calm or a textile labyrinth: the Heimtextil Trend Show in Forum o held visitors enthralled with its spectrum of textile impressions and was the undoubted highlight of the fair. The Trendtable of six renowned design studios compacted the trends for 2014/2015 into two antithetic blocks: 'Progress!' and 'Revive!' with four sub-themes entitled 'Generate Collision!', 'Engineer Nature!', 'Exalt Purity!' and 'Rejuvenate Craft!'.

"On the one hand, we want to look ahead and propagate technical progress as a chance for survival in this fast-moving age. On the other hand, the glance back into the past is important, as is the renewal of past traditions as part of the search for authenticity", said Olaf Schmidt, Vice President Textiles & Textile Technologies, summarising the trend prognoses. Over 2,500 visitors attended the accompanying programme of lectures.

Enthusiasm for high-grade wall coverings

In the home-textile sector, Heimtextil was once again able to underscore its position as the leading event for the wall-covering segment. Exhibitors of high-grade wall coverings in Hall 3.1 were extremely pleased with their results and the course of business at the fair. For example, one of the high-grade returnees, Chivasso from the Netherlands, was delighted with the fair and the orders taken: "We decided to exhibit at Heimtextil again and are very pleased with the results", reported International Sales & Marketing Manager Robert Petit. "For us, Heimtextil was unequivocally an order fair. Great interest was shown in our high-quality wallpaper designs by both German and international visitors." New exhibitor Arthouse was also delighted with the fair: "Our first presentation was a great success. We came to Heimtextil as visitors for many years and now aim to enter the export markets. At the fair, we were able to reach our key markets very well and make contact with numerous potential customers", said Arthouse Marketing Manager Lisa Mulley. Also very popular was the new wallpaper collection by Dieter Bohlen in cooperation with Germany's P+S International.

Bed, bath, table: pompous, individual and clearly accentuated

Among the trend colours that emerged in the sphere of household textiles this year were lively shades of green and natural tones with repeating patterns and clear accents. Traditional colours and designs combined with modern printing and weaving techniques also represented a source of completely new textile creations. In opposition to this, the dominant trend was towards intensive, loud colours with sensational patterns and lively details.

One of the many celebrities at Heimtextil was Harald Glööckler who presented his bed-linen creations in Hall 8. Boris Kruchen, Managing Director of KBT Bettwaren, was delighted with the course of business at the fair and his collaboration with the German designer: "This year was the best ever Heimtextil for us. Overall customer quality has improved – they have become more decisive and effective. The echo from the market to our Glööckler collection was very good." Exhibitors in Hall 11.0 were also pleased with the large number of visitors. Unmistakable bathrobes, high-quality bathmats and fine terry products ensured full order books. "It was right and important for möve to take part in the fair again after four years. We took numerous orders, especially in the export field, and follow-up orders are to be expected – especially from new customers. All in all, it was a very successful fair for us with lots of interesting discussions and new contacts, as well as a high degree of satisfaction on the customer and management sides", said Susan Eichwald, Marketing & PR Manager, summing up on behalf of möve Frottana Textil.

Heimtextil the platform for young designers

In Halls 8, 9 and 11, Heimtextil also put the spotlight on young companies with 'New&Next'. Eleven start-ups presented their refreshing and innovative textile development to an international audience of trade visitors. One of them was Crishome Tez from Portugal: "For us, Heimtextil is the ideal platform for presenting our collection and launching it in completely different markets. Here, we have met with customers from all over the world with the visitors to our stand coming from the USA, Mexico and even Greece", said CEO Cristina Teixeira.

Digital textile printing in the ascendant

Digital textile printing proved to be a milestone in the development of textiles and a major trend at Heimtextil. Market leaders, such as Durst, Reggiani (both Italy), SPGprints (the Netherlands), Pod Iberia (Portugal), Hewlett-Packard (USA) and Kornit Digital (Israel), made presentations at Heimtextil for the first time or increased the size of their exhibition stand in Hall 4.2. "We are delighted and were very pleasantly surprised by the great interest shown", says Oliver Luedtke, Marketing Manager of Kornit Digital Europe. "Today, there is hardly a manufacturer who is not interested in digital printing. Hence, we see ourselves at the beginning of a major development in this segment, a development that will also be reflected at Heimtextil."

An increasing proportion of fabric and wallpaper patterns are produced using digital printing technology, which is particularly suitable for big pattern repeats, realistic reproduction, rapid implementation and both big and small quantities. Photos, sketches or even the corporate design can be used as the design master. As was to be seen at Heimtextil, printed home textiles have now developed into an important area of growth for the textile industry whereby the focus of digital-printing companies is on curtains, drapes and bed and table linen. For this work, manufacturers can choose from a growing range of new technologies, processes and production methods. The digital printing machines to be seen at the fair permit not only a new spectrum of textile designs with almost millions of different shades possible. Other advantages of the equipment, which is already changing the European apparel sector, include flexibility, speed and production customisation. Today, new collections with individual designs can be produced and delivered within two weeks.

'Design live': the world's most important source for textile design

Also in Hall 4.2, around 200 exhibitors presented their creations at 'Design live', which began a day before the official opening of the fair and was able to consolidate its position as the biggest international platform for textile design. Stephan Thierry of Affabre confirmed the significance and success of the designer area: "We are really very pleased with Heimtextil and were able to sell many of our designs here. Heimtextil is unequivocally the number one for us as designers."

Upcycling: turning old into better

Revolving around an important, future-oriented subject, the 'Upcycling' special show in Hall 4.2 was characterised by original ideas and high-grade products made of article remainders, and aroused great interest.

With the 'Young Creations Award: Upcycling', Heimtextil in Frankfurt am Main presented for the second time an award for young people focusing on the principle of sustainability. The subject proved very popular in 2014 with 42 projects being submitted (2013: 12) after the competition had been opened to four instead of two universities as in the first year. First prize worth \pounds 1,500 Euro went to Jacqueline Theuer for her 'un Tragbar' project, a chair made of colourful textile scraps held together by a tension belt, which will also be exhibited at the Berlin Fashion Week in July. In the future, Heimtextil plans to expand the competition to include international universities and thus offer more space to this increasingly important subject.

'Webchance Academy': packed lectures on e-commerce

The online trade and marketing are currently one of the most hotly discussed subjects in the sector. Especially for retailers and newcomers to the world of e-commerce, Heimtextil held the two-day 'Webchance Academy' on successful internet advertising and sales on 8 and 10 January. The presentations on best-practice examples and legal obstacles in e-commerce proved to be particularly popular among visitors and triggered some lively discussions. The 'Webchance Academy' was part of 'Lecture Square', a high-grade programme of expert lectures on subjects of importance to the sector, such as Hotel IT and sustainability.

Expertise in the contract business

Heimtextil also offered a broad spectrum of textile products especially for the contract business under the heading 'Contract Creations'. The range of facilities for architects, room planners, interior decorators and designers included an expanded programme of lectures at the new 'Contract Square' in the foyer of Halls 5.1/6.1. There, well-known architects and furnishing experts reported on subjects of topical interest to players in the contract business. Additionally, many architects took advantage of the chance to gather training points in a special scheme offered by the regional architecture guilds in Germany.

During Heimtextil, 'AIT' and 'xia IntelligenteArchitektur' architecture magazines presented the 11th 'Architektur+ Textil Objekt' Innovation Award for innovative products from the home textile, contract business and interior solutions segments. Trade visitors had the chance to see the seven award-winning products in a special exhibition.

The presentation as an opportunity to stand out

Particularly evident at the 44th Heimtextil was the increasing significance attached to the presentation of textile products. "In my opinion, a professional and modern presentation is another key to success", said Detlef Braun. The positive economic outlook for 2014 and the increasing purchasing power in Germany mean new opportunities for the retail trade. Thus, SATI's Ben Martens appealed to German retailers saying, "The focus must be on emotions because customers want high-grade, innovative and individual solutions. Interior decorators with their own signature are well equipped to take advantage of this trend.

'Heimtextil goes City': the Heimtextil trends in Frankfurt

Ten years after making its debut, the 'Heimtextil goes City' campaign for consumers in downtown Frankfurt continues to be very popular. "We are always pleased to take part in 'Heimtextil goes City'. In the weeks after Christmas, our customers are on the lookout for new decoration ideas. Hence, they come to us on the Saturday of the fair to see the Heimtextil trends, which we present in a fashion show", explained Sabine Decher-Weigand of Betten-Nöll. Under the motto 'Saturday is Trend Day', 22 interior decorators, bed dealers, book shops and galleries presented new products from the trade fair.

The trends: lively colours, shimmering lustre, Baroque inspirations

Overall, the trend to more colour was obvious with expressive tones, such as petrol, fuchsia, lime, honey, turquoise and royal blue to be seen at the fair. Often, these shades are combined with white, crème or grey to avoid making a loud impression. In the case of finer fabrics, the colours are frequently tone-in-tone while a mixture of matt and lustrous yarns gives many fabrics an interesting look. New at Heimtextil was a trend towards patterns with a contrasting dark background in anthracite, mocha or black.

Attractive designs for every taste

They top the hit list of decorative elements for fabrics: flowers and blossoms of every kind and size, from a scattering of tiny little flowers to big picturesque blossoms à la Andy Warhol. Animal motifs are still to be found on many decorative fabrics and pillow cases. Delicate creatures, such as butterflies, beetles and dragonflies, are conquering the world of home textiles against competition from imaginative Baroque designs, such as arabesques or médaillons, and classic border decorations, many of them slightly modified or blurred, but all in generally modern, contemporary shades. More and more products have relief-like, structured surfaces, from fine rep to cloqué fabrics. Many of the decorative fabrics at Heimtextil were offered together with transparent fabrics in matching colours and patterns. Praiseworthy newcomers are decorative black-out fabrics that are also available for crèches and kindergartens and, of course, comply with the latest safety regulations.

Stylishly covered armchairs and sofas

The cover fabrics presented at the fair were distinguished by great variety. Particularly numerous were collections with matching small patterns, which are suitable for combining as suites or using for decorative cushions. A large part of the fabrics have relief-like surfaces (ribs, rhombuses, carrés, circles, floral decorations), which lend character to monochrome fabrics.

Gaining ground are artificial-leather fabrics for upholstery or wall coverings. They are smooth, monochrome and represent artificial-leather imitations or have fashionable, embossed decorative elements. Also gaining in popularity at the fair are decoratively patterned, weather resistant outdoor fabrics for the terrace, balcony or garden.

Wall coverings: making walls more attractive

This year's Heimtextil saw a continuation of the triumphal advance by wall coverings.

Derided as old fashioned just a few years ago, they have developed into a trendy and extremely desirable design element. And this is hardly surprising because consumers have seen that wall coverings enable them to make significant atmospheric changes to a room with relatively little effort. The spectrum of patterns at the fair was bigger than ever before. They range from fine craquelé motifs, via extraordinarily imaginative geometrical designs and modernised classical motifs, to ethnic art, from wallpaper with enchanting, blurred colourways to big, bright mural-like decors. Incidentally, golden times are coming for walls: many patterns shimmer in gentle shades of gold, silver or copper, which give the wallpaper an aristocratic touch or tongue-in-cheek palace appeal. More and more designs have slight or pronounced relief structures and they give the wall a sophisticated plasticity. Frequently, nature is the prototype - in the form of blossoms, vines, bark, stones, wood or crocodile leather. Additionally, some manufacturers use natural varns on the surface of the product. Water hyacinths and banana leaves were also to be seen. Some Heimtextil exhibitors also offered wall paint to match some of the wall coverings.

Almost too good to walk on

Cosy high-pile carpets were as popular as ever at this year's Heimtextil. In this segment, the colour spectrum was dominated by soft, subdued shades. In contrast, carpets with tufts made of strong wick yarn are very colourful. Still en vogue are carpets with a 'used look'. They are woven in such a way that they appear to show signs of use. Among the modern patterns, the leading positions are held by geometric

motifs, such as stripes, checks, diamonds, waves and borders, while carpets with pictographic images were also to be found.

Huge spectrum of poles, tracks and trimmings

Curtain poles were to be seen from the elegant side at Heimtextil 2014. They are mainly made of stainless steel, chrome or painted metal and, as a rule, have well-designed end pieces and brackets. For people with an opulent taste, there are even ends with Swarovski crystals. However, excessively sumptuous products are on the retreat. An increasing number of poles have an internal track for runners and are available with ceiling brackets because, in many modern buildings, there is no room for wall mountings above the window. More rustic poles come in brilliant colours, diameters of up to 55 mm and large blooms as end pieces. Attractive pelmets are offered together with curtain rails.

Some of the rails can also be used as picture rails – many can also be fitted in bay windows. Trimmings in many different shades – including modern, monochrome models – can be matched harmoniously with the curtain material used.

Practical and attractive: roller blinds, venetian blinds, vertical and panel blinds

Blinds and sun-protection decorations are tailor made by Heimtextil exhibitors for consumers' windows. Today, these products come in an infinite variety of fabrics, colours and patterns – from diaphanous voile, via patterned decorative fabrics, to thick black-out material. Modern folding roller blinds are sold in widths and heights of up to 350 cm. Instead of a separate electric motor, a roller blind can be furled or unfurled by remote control via a battery-powered mechanism in the roller. Because they are also suitable for difficult windows, pleated roller blinds are a hit among tailor-made window decorations. Particularly popular are pleated blinds with honeycomb-like chambers. They form an air buffer, which significantly reduces heat loss in the winter and protects against heat and UV radiation in the summer. Demand is growing for double roller blinds with two rolls of fabric, one behind the other, and alternately light-proof and translucent panels. They permit the view in (or out) and the amount of light passing through to be varied exactly as required.

The classic venetian blind is nowadays no less modern with slats in different widths, innumerable colours, painted or made of wood, bamboo or plastic. But whether roller or venetian: many of the blinds shown at Heimtextil 2014 can be run up or down without a bothersome cord simply by touching the lower track. If the blinds do have cords, recent childprotection regulations forbid dangling loops. Instead, the cords must be held tightly or come away if subjected to a load of six kilograms or more. Today, there is no doubt about the suitability of vertical and panel blinds for the home thanks to the wide range of decorative colours and patterns now available.

Decorative fabrics for the bathroom

Bathroom textiles were also more colour conscious at Heimtextil 2014 than in the previous year. In the terry-goods segment, shades such as China red, meadow green, ultramarine and gold bring the colour spectrum to life. Also popular are tranquil tones, such as old rose, pistachio green and mauve. There has been a significant increase in the number of collections with more masculine colours, such as light grey, stone grey, anthracite, night blue and black. Hand towels have pronounced structures, are decorated with narrow solid-stripes, as well as with check, ivy and border designs. Matching bathroom textiles are also available, e.g., soft and cosy bath mats with pile of up to 45 mm. Increasingly to be seen in the collections are bathrobes in matching colours. Indeed, some manufacturers even offer toothbrush tumblers, soap dishes, small waste bins and shower curtains in the colours and / or patterns as their terry products.

Flowers in bed

What applies to decorative fabrics also holds good for bed linen: floral motifs are 'in'. Duvet and pillow covers are strewn with petals, romantic flowers and bouquets.

Or large, brightly coloured flowers with long stems lay across the fabric. Alongside them are stripes of all kinds – from colourful fusions for the 'young bed' to elegant, tone-in-tone satin stripes. Classic and traditional motifs, such as paisley, ikat and modernised Baroque ornaments, are en vogue again. Cheerful, eye-catching motifs from the animal world include swallows and butterflies. New is the combination of two sets of bedlinen with completely different yet matching designs.

Monochrome bed linen is to be found in a variety of qualities, from the finest piqué to robustly structures cloqué, with hemstitch decoration, Oxford edging, with braiding or cording and buttons in contrasting colours. Striking in the case of covers is the widespread use of knitted fabrics and tone-in-tone patterns.

Sprucing up the dining table

Gone are the times when the dining table was set primarily with practical utensils and only made to look fine on high days and holidays. Today, table linen for everyday use is also distinguished by attractive, homelike designs. Floral splendour is in evidence in this segment, too, as are decorations comprising big circles or intricate line decorations, in many cases on semi-transparent fabrics – the more elegant, the quieter the shades. To match the table cloths, runners, placemats and napkins, there are pillow cases, aprons and even panel curtains – with the same pattern or monochrome.

Alongside this range are numerous designs in country-house style and – for the more elegant household – luxurious table cloths, placemats and napkins in wonderful plain fabrics. In this segment, linen is the successful climber of the season. Kitchen towels are characterised by less elaborate, less kitschy designs. Thus, tea towels with classic white & blue and white and red checks, as well as the 'Grubentuch', a traditional German miner's towel, made their comebacks at Heimtextil 2014. From Asia, there were attractive accessories for the well-set dining table including napkins and jam-jar covers with hand-embroidered fruit and vegetable motifs.

Heimtextil 2015 rolls out the carpet

For 2015, the Heimtextil management is planning to expand the 'floor' product group: "We are very pleased with the growing interest shown by carpet companies in the fair – all the more so given that holistic textile furnishing concepts naturally include carpets. We will give greater emphasis to this subject at Heimtextil 2015 and offer a new concept with a presentation oriented towards the current zeitgeist and a central position at the Exhibition Centre", said Detlef Braun.

The next Heimtextil in Frankfurt am Main will be held from 14 to 17 January 2015.





'Conceptual Living' - An analysis of living redesigned compiled in the 2014 Heimtextil Management Report. Available at http://publ.com/0bYUJya



Trendshow - Forum



Trendshow - Forum



Dieter Bohlen



Barbara Becker



Harald Glööckler



Jette Joop

DOMOTEX 2014 delivers impressive performance as the world's leading event for the floor coverings industry

1st Rug Avenue - new Special Display in Hall 14, Classic oriental rugs as lifestyle objects

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A nyone who attended Domotex 2014 in Hanover (Germany) could once again reaffirm why Domotex is the most important event within the international carpet sector. Firstly, one major reason is that all key players, from designers to manufacturers of machines used in production, are here on site and make good use of the opportunity to lay the foundations for the coming business year.

And then there's the range of products: there's nothing that can't be found when it comes to carpets and floor coverings, including patterns and colours which, even considering differences in taste, are doubtlessly not suited to the European style of living. Furthermore, there are the cutting edge carpets which can inspire us, change our views and captivate an entire sector. These innovations spread the spirit of a new beginning, which in turn takes a leap forward and, by generating new ideas for growth and success, shows an entire sector the possibilities actually available to it. This is where Domotex reveals its strength; it successfully mixes triedand-tested formulas, such as the Carpet Design Awards, with new concepts like the Innovations@Domotex or the 1st Rug Avenue. In this way, it gives something back to textile floor coverings that they have long since lost: "sex appeal"! Yes, Domotex has shaken things up, something that the Deutsche Messe also recognises.

The fair organisator stated that DOMOTEX 2014 – the world's flagship fair for carpets and floor coverings – came to a highly successful conclusion on Tuesday, January 14, having attracted a total of approximately 45,000 visitors from more than 80 nations. "DOMOTEX 2014 has delivered an impressive performance thanks to its uniquely international appeal, high attendance, the well-received 'Innovations@DOMOTEX' concept, plus a considerably more buoyant mood in the industry" stated Dr. Jochen Köckler as the Managing Board at Deutsche Messe responsible for DOMOTEX, who added: "Staging DOMOTEX as a key business platform and idea-giver at the outset of the year makes it an extremely attractive event for carpet and floor covering buyers and decision-makers from around the globe."

1,350 companies from 57 different nations showcased their latest products and collections at the Hannover Exhibition Center, with the industry making a strong showing in terms of quality and innovativeness. "The huge array of invitingly cozy carpets, sophisticated parquet and laminate flooring, stylish designer floor coverings, and masterful handwoven rugs on display sported captivating designs and an astounding variety of materials, colors and patterns which all testify to the highly innovative spirit of the international floor coverings industry – an industry which is clearly in great shape for the upcoming season," said Köckler. The mood in the exhibition halls made it clear that the mood in the industry had taken a considerable turn for the better, with exhibitors speaking of greatly improved business prospects and an anticipated upturn in sales.

Innovations@DOMOTEX off to successful start

Making its debut this year, the "Innovations@DOMOTEX" showcase put a fresh spin on DOMOTEX as a trendsetting event with lots of fresh ideas to offer. The concept – which is aimed at sparking heightened interest in select innovations and designs on show by participating exhibitors – proved to be "a major success right from the start", said Köckler. The more than 60 highlights featured within Innovations@DOMOTEX represented the "very essence of the tradeshow", he continued, adding that "visitors gave top marks to the new showcase" and that it would now be a centerpiece of DOMOTEX for years to come. Exhibitors, too, were full of praise for Innovations@DOMOTEX: "The new approach generated a lot of interest, and visitor traffic proved that it struck a nerve with attending professionals," remarked Robert J. Munisteri, Director of International Sales at Masland Contract based in Saraland, Alabama. The new format was also warmly embraced by architects and interior designers and decorators. Innovations@DOMOTEX provided visiting professionals with a convenient and inspirational source of orientation and information, while the Innovations@DOMOTEX Talks featured well-known personalities from the architecture scene and fostered valuable dialogue on a host of topics related to floor coverings. "The Innovations@DOMOTEX areas enabled architects and interior designers to get a quick, concise overview of the many highlighted innovations, and the Innovations@DOMOTEX Guide helped them to explore the innovations in advance so they could plan their tradeshow agenda efficiently. The new concept made it possible to discover and get enthused about highlights of pointed interest to them," commented Susanne Brandherm of Brandherm + Krumrey Interior Architecture, Cologne.

Lets have a look at some of the innovations concerning the textile sector. The Dutch Edel group presented its innovative **ESP Detection Floor**, which uses electronic fields to detect people's movements, analyze them and transmit a warning if they seem unusual or signal potential danger. The ESP Detection Floor can be used privately at home or to monitor hospital patients or dementia sufferers in care homes. The manufacturer has taken great care to design a system that will not infringe personal privacy.

KATZ GmbH from Weisenbach showed its totally natural **GREEN LIGNIN insulating underlay**.

Thanks to its special biopolymer structure, GREEN LIGNIN clings like a gecko to the flooring to deliver outstanding insulation against footsteps and general noise. This performance is all down to the gecko effect and the material's combination of high volume and density as well as its unique composition. GREEN LIGNIN can be laid under parquet, laminate, cork, vinyl and designer flooring as floating insulation, and can also be industrially laminated.

Böing Carpet GmbH transported **children** into the fantasy worlds of Capt'n Sharky, Princess Lillifee and other adorable friends. Beyond their lovable characters, the vibrant colors, thick and high-quality yarn and professional production of these **rugs** promise endless hours of fun in any child's room. These easy-care rugs feature an antibacterial treatment, are odorless and have been tested for harmful substances. A non-slip coating on the underside prevents accidents.

After 20 years' experience in floor couture, Michaela Schleypen's technique of choice for **handmade rugs** is **hand tufting**. Ms. Schleypen revealed the true potential of the craft with her Floor To Heaven label. The hand-tufted Sea Urchin exhibit has a three-dimensional, uneven surface that offers an exceptional sensory experience to anyone who walks over it. The surface is dotted with slightly raised 'pearls' to resemble the shell beneath an urchin's spines.

Each is individually stitched into the base and then trimmed by hand to form a shapely sculpture.

The new Laneve label from Wools of New Zealand complies fully with the requirements of **ecological and social responsibility and strict observance of animal welfare standards**. The UK company presented its Bond Street carpet collection in colors set to be bang on trend in the year ahead. Laneve textiles and carpets are made entirely of **wool** from **New Zealand** that has been obtained exclusively from certified sheep farmers who have signed up to a comprehensive set of conditions. Alongside animal welfare measures such as non-intensive rearing, these conditions also promote ecologically optimized land management and methods of transportation that are as environmentally friendly as possible. The wool of all Laneve textiles and carpets can be traced back to the farmers it came from.

Repac Montagetechnik GmbH in Gehrden (Germany) showed its Raster Click LOCK solution -a floor **profile system** for floating designer **floor coverings**. RC LOCK comprises a base profile and a cover profile that are joined together using a **click technology** based on the tried-and-tested Raster Click laminate system. Thanks to the multi-stage click-in design of the base profile, the 28-mm cover profile can be clicked into place at various heights from 4.5 to 7.5 millimeters. The system has been optimized for use with mFLORLOCK and WHITELOCK floors and other floating designer floor coverings. The range currently comprises two lengths (70 and 100 cm) and four colors.

Highly international appeal – great satisfaction among exhibitors

Exhibitors at DOMOTEX were sought out by potential business partners from every corner of the globe. 57 percent of the show's visitors came from outside Germany – approximately two thirds of them from other European countries, plus around 20 percent from Asia and about 10 percent from the Americas. The biggest visitor nations included the United Kingdom, Turkey, the Netherlands, the United States and Italy. Remco Teulings, President of the EMEA division of Tarkett based in Nanterre, France, praised the event's international character by saying: "For us, DOMOTEX is the most important tradeshow in the world – the only place where we can present our innovations to such a wide audience."

Further praise was expressed by Mohamed Farid Khamis, Chairman of Oriental Weavers Holding based in Cair: Nowhere else can you see such a highly international gathering of industry players displaying the latest products, trends and technologies. Our company operates worldwide, which is why we place such great importance on generating international business leads. DOMOTEX is really and truly a sales exhibition, with all the major buyers coming here to do business."

Also in terms of the caliber of its visiting professionals, DOMOTEX delivered right on target, with over 70 percent indicating that they play a major role in their companies' purchasing decisions.

The main visitor categories at DOMOTEX consisted of wholesale and retail buyers – at 25 and 34 percent, respectively.

Purchasers from home furnishing and furniture retailers as well as architects were also well represented. Attendance by members of the skilled trades was clearly on the rise, reaching 25 percent of the total.

The SKILLED TRADES HUB provided an extensive array of exhibits and presentations involving practical solutions of interest to parquet and floor layers, interior decorators and painters.

New ideas for oriental carpets

There are also two very interesting and promising developments that are reviving the falling demand for carpets which has occurred over the past few years with new ideas, primarily to gain more buyers in the luxury sector. At this point, we simply have to ask the question as to whether a greater number of customer groups can be won over with classic Oriental carpets in a modern living space. This is exactly what Domotex has done. Under the slogan "It goes without saying - Oriental carpets are impressive and beautiful, but can you really imagine these exquisite articles in a modern living room or office?" the 1st Rug Avenue was conceived in order to give the fantasy a bit of a boost. Visitors could explore nine houses to see how a Tabriz Persian rug can set off a factory loft, or a Gabbeh with its colorful naive figures can brighten up a children's room. Those who want more details found information in the houses' mailboxes about the specificities and features of the decorative oriental carpets. All in all the "1st Rug Avenue" demonstrated how traditional Oriental rugs can serve as a perfect complement to trendy interiors. This was a great development for the business and retailers, but to change people's views on a really broad scale, these ideas must make their way through to the customer.

A very different but perhaps more interesting development is that of several young, distinctive characters in the world of design, for whom Hossein Rezvani acts as a representative.

They have taken on this supposedly outdated topic with, in part, brand new visions, without losing sight of traditions or personal backgrounds: they could bring about a renaissance in handwoven carpets in Germany. With his Persian roots, Hossein Rezvani represents this new interpretation of a centuries-old tradition. His Electric Gold exhibit totally encapsulates all his longing, creativity and endurance and his designs have the power to make a lasting impression. Electric Gold breaks with the Persian tradition of floral designs, using geometric lines instead. However, the thread of continuity runs through the luxurious hand knotting of Persian highland wool and pure silk, which reflect warm light in a variety of patterns according to the angle of view. It would be great if more designers followed the example of these innovative designs, if the industry encouraged these ideas and the carpet sector could experience a new boom as a result.

Carpet Design Awards 2014

A total of 11 products were honoured on Sunday, 12 January, in a ceremony marking the start of DOMOTEX HANNOVER. An additional award – for the carpet most favoured by the public – will be presented at the end of the show. The presentation of the internationally acclaimed Carpet Design Awards took place for the ninth time at the world fair for carpets and floor coverings in Hannover. The Carpet Design Awards are dedicated to handmade carpets of remarkable quality and design. A panel of experts judged outstanding products in a range of categories, including best studio artist designs and modern carpets, as well as everything ranging from traditional to innovative. This year's Carpet Design Awards also focussed in particular on young talent.

A total of 329 entries from designers from across the world entered the competition for the highly esteemed awards. 33 carpets reached the final round. All these entries will be on show on a special display area during DOMOTEX. The visiting public will see an impressive array of excellent carpet designs. After careful deliberation, the panel of judges were most impressed by 11 designs displaying particular excellence in terms of design, colours and materials.

The winners of the Carpet Design Awards for 2014:

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Best Studio Artist Design: Shire Line by Studio Claudy Jongstra



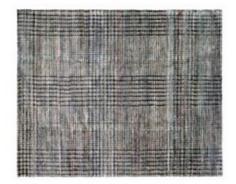
Best Modern Collection: Manhattan Collection by Wool & Silk Rugs



Best Innovation: Cross me (k)not by cc-tapis Best liked by DOMOTEX visitors



Best Traditional Collection: Haîk Collection by Jan Kath Design



Best Modern Design Deluxe: Prince of Wales by Zollanvari



Best Modern Design Standard: Taala by Naziri

The winners of the Carpet Design Awards for 2014:

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Best Modern Design Superior: Peacock by New Moon



Best Young Designer: Allistair Covell, AfghanMade



Best Transitional Design Garden Antracid by Global Overseas



Best Student Design Sheefalika Misra, AfghanMade



Best Traditional Design Tree of Life by Rug Star

Best Student Design	Sheefalika Misra, AfghanMade
Best Young Designer	Allistair Covell, AfghanMade
Best Studio Artist Design	Shore Line by Studio Claudy Jongstra
Best Modern Design Standard	Taala by Naziri
Best Modern Design Superior	Peacock by New Moon
Best Modern Design Deluxe	Prince of Wales by Zollanvari
Best Traditional Design	Tree of Life by Rug Star
Best Transitional Design	Garden Antracid by Global Overseas
Best Modern Collection	Manhattan Collection by Wool & Silk Rugs
Best Traditional Collection	Haîk Collection by Jan Kath Design
Best Innovation	Cross me (k)not by cc-tapis Best liked by DOMOTEX visitors

Year after year, the Carpet Design Awards set standards in design trends and ideas.

The members of the expert jury were, however, not alone in appraising the entries.

Trade visitors also had a say in who wins a Carpet Design Award and picked their own favourite among the finalists. The public selected their best-liked carpet from the 33 finalists, and the winner is "Cross me (k)not" by cc-tapis.

The emphasis on upcoming, next-generation talent has been another new feature involving the introduction of two new categories. The AfghanMade initiative called for young designers (aged below 25) and design students to create and submit their own original work. Six designs were then handcrafted in Afghanistan and have been on view at the fair. In the design student category the contestants Sheefalika Misra from India, Evrim Terkesli from Turkey and Aoi Yoshizawa from Japan reached the final round. The winner is Sheefalika Misra. The finalists in the young designer category were Isobel Morris and Allistair Covell, both from the United Kingdom, and Sanja Peric from Serbia. The winner of this category is Allistair Covell.

In addition to the carpet and floor covering manufacturers, there were also several manufacturers of machines along the carpet production value added chain among the exhibitors.

Allma Volkmann informed about the Two-for-One Twisting Machine CarpetTwister and the Direct Cabling Machine CarpetCabler. Both have been successfully used to produce high quality, high economy yarns for quality carpets and other textiles for decades. Specially designed unwinding aids of the Two-for-One Twisting Machine CarpetTwister allow even difficult yarn grades e.g. polypropylene BCF yarns to be produced in the up-twisting process. The universal hollow-shaft spindle of the Direct Cabling Machine CarpetCabler allows the simple conversion from the Twofor-One method to the cabling method and vice versa. And the Volkmann Heat-SET integrates heat-setting in the cabling process.

Autefa Solutions informed about three products of special interest. The needle loom Stylus is equipped with the innovative Variliptic drive system, which enables high production speeds while also ensuring a gentle needling of the nonwoven fabric. This is particularly important during the first process step, the preneedling. The Variliptic drive system optimizes the surface of the nonwoven fabric, while also protecting fibers and minimizing the needle wear. The Webmaster WM 2+2 Card is designed for high productivity and top quality nonwoven materials.

The patented system of the intermediate double doffer provides an optimal strip-off at the first cylinder and allows the division of the fiber flow in the intermediate area providing improved blending and fiber distribution on the second cylinder. The Crosslapper Topliner is a key machine in many nonwoven installations. The Crosslapper Topliner increases product quality in new installations or as a replacement in existing lines, while contributing to saving raw materials at the same time.

Brückner Textile Technologies spoke to customers about its high-end solutions for drying. The DUO-THERM dryer is the perfect solution for all thermal treatment processes requiring a differentiation between upper and lower air temperature. It is therefore mainly used in textile and carpet coating lines. Other topics in the focus are the several fabric transport systems in the DUO-THERM dryer and cleaning and maintenance of Brückner dryer. And the carpet dryer SUPRA-FLOW with conveyor system operates on the throughflow principle and offers decisive advantages like maximum air impingement which is prerequisite for a high drying performance.

Dilo Systems made presentations concerning their complete staple fibre nonwoven lines for the production of home furnishings, floor coverings, wall coverings and blankets. These lines consist of opening and blending equipment provided by DiloTemafa, card feeding systems and cards manufactured by DiloSpinnbau as well as crosslappers and needle looms designed by DiloMachines. **Groz-Beckert** informed about their wide range of products for the carpet industry. They offer tufting machine needles, modules, loopers, tufting knives, reed fingers.

Oerlikon Neumag and **Oerlikon Barmag** presented their solutions for an efficient carpet production. The focus of the information has been on the 3-end BCF plant S+ from Oerlikon Neumag, as well as on the new tape yarn solution for carpet backings, EvoTape with WinTape, from Oerlikon Barmag. The 3-end S+ not only convinces due to the efficiency of 99% and therefore raw material cost savings. It also covers a wide spectrum of producible total titers of 600 - 4000 dtex. Furthermore, all polymers from polyester, via polypropylene up to polyamide 6, can be processed on the multipolymer plants without conversions. Since its introduction to the market in 2011, the S+ is the most-sold BCF plant and produces economical, high-quality BCF yarns worldwide.

The three Saurer companies Saurer Temco, Saurer Fibrevision and Saurer Heberlein informed about thier range of high quality products for its global customer base. For example they presented air jets, bearings, cots and aprons for textile texturing, components for spinning, texturing, twisting and winding as well as complementary products for high-end aspirating, cutting and splicing. **Thies** (*Hall 5, Stand Bo3*), a world market leader in dying machinery, showed suspension rods with spraying device for hankMaster. Completing the Thies range of yarn dyeing machines, the hankMaster has been specifically designed for the dyeing of yarns in hank form. The novel liquor flow ensures perfect dyeing of a wide range of hanked yarns including wool, soft and mercerised cotton, and critical fibres such as viscose, polyamide, silk and high bulk acrylics.

Trützschler Nonwovens (Hall 5, Stand B11) had their focus on the well-proven symTTex-technologies for carpet yarn (BCF) spinning which provide enormous flexibility in choice of polymers (PA, PP and PES) and colours to meet the market demands concerning small lots and colour diversity. symTTex M20 (mono-colour) and T20 (tric-olour) are modular, stand-alone solution for PP and/or PA BCF 2-end processes. The key features of the symTTex M40 machine are the symmetrical arrangement of the spinning positions and the the straight 4-end yarn path, where the friction within the process is reduced to a minimum level.

Schönherr and Stäubli demonstrated innovative developments for carpet production. Schönherr participated with its own booth focusing on application know-how with its MWS (Multi Weft Selector) system, high density carpet weaving as well as its 5 meter carpet weaving machine ALPHA 500 UNIVERSAL. Schönherr's Multi Weft Selector technologies are widely used on carpet weaving machines of the ALPHA series.

A particular highlight was the new Schönherr MWE3 (Magic Weft Effect 3) that allows the production of carpets with three different wefts visible next to each other within one single pick line. In combination with MWS 6+6 even 15 colour combinations are possible just for the ground. This technology has set a new trend in carpet weaving.

On top the first samples with 1000 reed/8 colours have been exhibited. Beautiful and unique surfaces and clearest carpet back sides impressed the visitors. Furthermore, Schönherr was especially presenting its 5 meter carpet weaving machine ALPHA 500 UNIVERSAL. The increased working width ensures higher productivity without relinquishing the proven technology of the ALPHA 400 series. The ALPHA 500 UNIVERSAL is equipped with the electronically controlled Rotary Dobby 2688, a servo cutting unit and liquid cooling system. Depending on customer requirements the machines can be equipped with optional features e.g. with Multi Weft Selector. The special binding options in the real 3-position jacquard machine and the Magic Weft Effect are also available with the ALPHA 500. Virtually unlimited design options for any type of rug will help producers to stay ahead.

VAN DE WIELE stands for state-of-the-art in face-to-face carpet weaving and presented some examples of carpets produced with thier latest technology. The double rapier Rug & Carpet Innovator RCio2 boosts the carpet industry. It is equipped with several servo-motors for an increased flexibility and productivity and comes with a new design for improved access and ergonomics.

A very stable machine built in pile width up to 5,2m. The Rug & Carpet Innovator RCio3 inserts three wefts at the same time, weaving the 3-shot structure with 50% more production. The RCio3 jacquard enables a broad range of weavestructures like the 2/3V, 2/2V, 1+2/3V, etc. When equipped with Smart Frames, switching is very easy. And the New HandLook Carpet Pioneer HCP X2 weaves high quality carpets with a hand-knotted back at double production. No ground warps showing through the back results in the hand-knotted look and a perfect pile fixation, with only outside picks. Hand look carpets are woven in reeds of 240d/m - 300d/m - 500d/m - 700d/m up to reed 1000dents/m. The patented HCP X2 Hand-Look weave structure is woven with 3 rapiers and stationary incorporated pile.

VERDOL offers one of the most complete ranges for textile machinery to the carpet yarn industry with machines for Twisting, Assembling, Cabling, Direct Cabling, Covering & Winding of yarns made of synthetic, artificial, natural and mineral fibers. The French company was one of very few exhibitors showing a machine in working mode – the new LTC 60, their ideal lab machine for challenging markets applications. The Lab Twister & Cabler LTC 60 is designed with a compact and fashionable look, fast to unload from lorry and ready to start, easily movable. With the LTC 60, VERDOL offers an optimum of flexibility thanks to the autarkic design of its individual compact motor spindle. Indeed, the LTC 60 combines twisting, cabling, direct cabling positions with single drives. Then, each multitalented individual spindle can be individually and remotely set with parameters setting. Different raws, several twists, multi-ply yarns, hybrid constructions become possible. **Xetma Vollenweider** presented their customers and prospectives compact finishing lines for velour, velvet and plush. The units are specially developed and proved for the finishing of upholstery and furnishing fabrics including carpets and runners and guarantee you the best firstclass effects at highest performance - result to last a lifetime. Modular compact structures take up much less floor space and at the same time enable greater ease of operation as well as a more flexible design to the process chain. The comparatively low energy consumption contributes to environmental protection.

The next DOMOTEX will be staged from 17 to 20 January 2015.

Some impressions from Domotex 2014



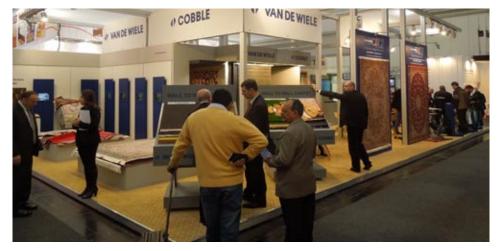
Oerlikon Neumag had their focus of information on the 3-end BCF plant S+ .



Trützschler Nonwovens had their focus on the well-proven symTTex-technologies for carpet yarn (BCF) spinning.



Groz-Beckert informed about their wide range of products for the carpet industry.



VAN DE WIELE presented some examples of carpets produced with thier latest machinery Rug & Carpet Innovator RCio2 & RCio3.



Dilo Systems shared a booth with Brückner and made presentations concerning their complete staple fibre nonwoven lines. Brückner Textile Technologies spoke to customers about its high-end solutions for drying DUO-THERM dryer.



There was a special designed area for the Innovations@Domotex which was always crowded by visitors.



Carpet presentation in the Innovations@Domotex area.



Of cause there were a lot of boothes showing classic oriental carpets.

Schlafhorst, the number 1 in China

BD machines

With the commissioning of the 500,000th BD spinning position and the 1,000,000th Zinser spindle from the plant in Suzhou, Schlafhorst in China can celebrate two outstanding events at the same time this year. Once again, the company thus impressively confirms its status as the most successful textile machinery manufacturer in China. Schlafhorst has marked the handover of the anniversary spindles to the Shandong Linqing Sanhe Textile Group and the Linqing Huaxing Textile Co. Ltd. at an exclusive ceremony on 24 and 25 February 2014 with other distinguished customers and high-ranking representatives from the world of politics and the economy.

A unique success story

Textile machines from Schlafhorst were creating a stir in China half a century ago, laying the foundation for the company's excellent image in what is now the world's biggest market for textile machinery. Schlafhorst itself has been active as a company in China since 1990. The plant in Suzhou was opened in 2002. Since then Schlafhorst has been producing BD rotor spinning machines there for the global market. Average annual production rose from nearly 8,000 spindles in the first year to such an extent that in around just ten years 500,000 BD spinning positions accrued – a unique success story.

Spurred on by this success, the plant was extended to include the production of the Zinser 360 ring spinning machine.

Following this earlier model, Schlafhorst now manufactures the Zinser 71 generation of ring spinning machines for the Chinese and some other markets there. Now the 1,000,000th ring spindle has left the plant.

The success hasn't come about by accident. Schlafhorst understands better than any other company how to satisfy the demands of the Chinese market with the German concept of quality, innovative technology, efficient local production and a unique cost-benefit ratio. Targeted technology transfer and Schlafhorst's wholly owned production facility in China make it possible to achieve the minimum time to market for technical innovations. Both the BD rotor spinning machines and the Zinser ring spinning machines are tailored to the special needs of the markets. Schlafhorst thus succeeds in remaining a step ahead of the competition.

Innovation, performance, motivation and consistent customer orientation are integral elements of the excellent corporate culture of Schlafhorst China and another building block in the success story. Highly skilled employees who have shown their loyalty to the company over many years ensure continuity in customer relationships and an unsurpassed quality of service. They inspire their customers by their professionalism, expertise and genuine commitment. All the company's activities are geared to one aim alone: to enable customers to react more quickly, flexibly, efficiently and successfully to the demands of their markets. Schlafhorst has been realising this aim for decades with optimal, uncompromising quality, solution-oriented innovations and customer-oriented service.

Schlafhorst also upgraded the machine operating concept, setting new standards in user friendliness thanks to visualisation and simple user menus. Intelligent control of the motor speeds using frequency inverters also significantly increased process reliability.

The BD 330, introduced in 2005, was the first machine with electronically controlled sliver intake – an innovation that has since become state of the art at Schlafhorst. Likewise EVA (Electronic Vacuum Adjustment), the electronic suction system for the spinning vacuum, a feature with which the BD 330 was years ahead of the competition. Another factor crucial to the success of the BD rotor spinning machines in the global market was the option of using the new European high-end yarn clearer Corolab on the machine.

In 2005, Schlafhorst China also launched the BD 350 Fancynation, a semiautomatic rotor spinning machine with fully integrated software for the production of fancy yarns. The BD 380 followed in 2008, beginning the next chapter in the unique success story of Schlafhorst China.

Longer than its predecessor and designed for even higher rotor speeds of 120,000 rpm, this machine generation was already breaking new ground in terms of productivity some years ago.

The new NSB 38 spinbox guaranteed optimum fibre guidance and trash separation, high spinning stability and consistently good yarn values for all yarn counts and raw materials. The machine length was increased still further a year later on the BD 416. With this machine it was possible to spin even coarse yarns of outstanding quality. The latest generation of machines, which came onto the market in 2012, is the BD 448. It has created a stir with its reduced operator requirements, higher flexibility, reproducible packages and considerable energy savings compared with earlier BD generations.

The success story is firmly set to continue; the Schlafhorst engineers are already working on future machine generations that will deliver more surprising innovations.

The Shandong Linqing Sanhe Textile Group

The 500,000th BD spindle was handed over to Mr Wan Qiusheng, the president of the Shandong Linqing Sanhe Textile Group, by Cem Yalcin, the president of sales of Schlafhorst, at a special ceremony on 25.2.2014. The company was founded in 1988 and is now one of the 500 biggest private companies in China. It is in the top 20 companies in the Chinese textile industry.

The Shandong Linqing Sanhe Textile Group manufactures around 12,000 tonnes of cotton yarn annually in counts ranging from Ne 12 to Ne 50. 80% of the yarns are exported, making the group one of the leading export firms in the textile industry. The company's production machinery comprises 44 BD 448 rotor spinning machines from Schlafhorst with a total of 19,712 spinning positions.

Features of the Schlafhorst machines that are especially appreciated by the vertically integrated company are their high level of productivity, easy operation and optimal link-up with downstream processing stages in the company's own weaving mill. Productivity across all stages of the textile production process has been increased significantly thanks to the BD 448. For the customers of the Shandong Linqing Sanhe Textile Group, the quality of the yarns and packages in downstream processing is the key criterion. The company is able to satisfy the requirements of even the most demanding customers in the long term with the help of machines from Schlafhorst China.

Excellent quality, outstanding economy and maximum cost efficiency were not the only reasons why the group opted for Schlafhorst rotor spinning machines, however. The textile enterprise knows how rapidly market conditions can change in the industry.

"In the next few years we will increase the level of automation further to remain competitive in the face of rising labour costs. Schlafhorst leads the way when it comes specifically to automation. We expect, therefore, that Schlafhorst will react quickly to the demands of the market with innovative automation solutions," says Mr Wan, the Chairman of the Shandong Linqing Sanhe Textile Group. "We are convinced that we will retain our productive edge with Schlafhorst and ensure our success in the markets of the future."

The Linqing Huaxing Textile Co. Ltd.

On 25.2.2014, the Head of Sales, Schlafhorst China, Leo Franke, presented the one millionth Zinser ring spindle from the Suzhou plant to the President of the Linqing Huaxing Textile Co. Ltd., Mr Tang Xuepo, at a special ceremony. With annual production of 34,000 t of compact yarn, the company is one of the biggest compact yarn spinning mills in the Shandong province and a customer of Schlafhorst China for many years. The Linqing Huaxing Textile Co. Ltd. processes 100% combed cotton and produces yarns in counts ranging from Ne 40 to Ne 120 for weaving and knitting mills. The one millionth spindle is part of a major order that the company placed with Schlafhorst last year. It ordered 99 ZinserImpact 71 machines with 118,000 spindles as standalone machines with CoWeMat 396 F as well as 16 ZinserSpeed 5M roving frames and 28 Autoconer X5, type D winders. "Schlafhorst is an important partner for us as a leading compact yarn spinning mill in China," says Mr Tang Xuepo of the Linqing Huaxing Textile Co. Ltd. "The company thinks, feels and acts like we do. Schlafhorst gives us technological solutions with which we achieve exactly what we intend to achieve. We can operate more flexibly, reliably, successfully and with greater productivity than the competition. It is certainly no accident, therefore, that the one millionth Chinese-manufactured Zinser ring spindle is going into production in our plant in particular."

Efficiency and quality were the deciding criteria for the company in their choice of machines. Like the basic model ZinserRing 71, the new ZinserImpact 71, which is produced in China, guarantees optimum quality and profitability with its highly reliable precision engineering, maximum performance and extensive automation

options. As an experienced compact yarn spinning mill with the highest quality requirements, the Linqing Huaxing Textile Co. Ltd. is thrilled with the new ZinserImpact 71, because thanks to the self-cleaning Impact FX technology, the machine is equipped with the most reliable and efficient compact system in the world. Due to the self-cleaning of the compacting unit, the openings for the compacting airflow on the ZinserImpact 71 cannot become clogged and the compacting force is maintained over a long period.

Cleaning intervals are rendered superfluous and a creeping loss of quality is unknown. The desired yarn quality is guaranteed from the first to the last lot. With the ZinserImpact 71 the company can thus permanently guarantee the highest quality. The ZinserImpact 71 with the automatic CoWeMat doffer is also distinguished by a high level of automation, thus meeting the demands of the Chinese market. The fast, completely reliable automatic bobbin change cuts the operator input by more than half. Machine capacity utilisation increases at the same time, as bottlenecks, waiting times and downtimes such as occur regularly with manual doffing are a thing of the past.

Ring spinning competence from the roving to the package

Zinser not only has decades of experience in ring spinning, it also has extensive process and automation competence from the roving to the package. "Best quality on economically favourable terms can only be offered by companies that optimise the set-up of the entire production process," says Mr Tang Xuepo of the Linqing Huaxing Textile Co. Ltd. "We rely on the economical, energy-efficient technology of Schlafhorst from the roving to the package, therefore." For this reason the company uses the ZinserSpeed 5M as its roving frame and the Autoconer X5, type D in the package winding department.

The new ZinserSpeed 5M roving frame more than satisfies the high process requirements of the Linqing Huaxing Textile Co. Ltd. "It's a real energy marvel. The machine is extremely energy-efficient and saves up to 20% of energy due to the new suction system," says Mr Tang Xuepo with satisfaction.

With the Autoconer X5, type D the Linqing Huaxing Textile Co. Ltd. has achieved efficient material flow automation on the basis of Schlafhorst's proven caddy transport system. The type D machine operates as a standalone solution, spatially independently of the ring spinning machine, enabling the company to make optimum use of the space available.

The result is a productive, efficient process chain that comprehensively satisfies today's requirements for energy-efficient, operator-friendly and reliable production and fits perfectly into an innovative textile company. Equipped to best advantage with future-oriented technology from Schlafhorst, the company can get to work confidently on its ambitious plans and put them successfully into practice.

However the markets develop in the future, its technology partnership with Schlafhorst gives the Linqing Huaxing Textile Co. Ltd. the certainty of being able to react faster, more cost-effectively, flexibly and thus successfully to the demands of its customers. Schlafhorst is already working on new technological solutions to add further chapters to its success story in China. The company enters the Year of the Horse with energy and momentum, and will consolidate and expand its leading market position in China and the Asian markets further.



The head office of Linqing Huaxing Textile Co. Ltd.



Head office of the Shandong Linging Sanhe Textile Group



The plant in Suzhou



Golden BD spindle



Golden Zinser ring spindle



ZinserImpact 71 installation at Linqing Huaxing Textile Co. Ltd.

Topics of the next issue 2 /2014

TOP STORY:

Productivity & Supply Chain

Interview

Cotton News from International Cotton Conference 2014

eCommerce

Country focus: South America

Nonwovens & Technical Textiles:

"nonwovens and new applications"

Textile Machinery:

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Mr. Uwe Köhler Tel.: +49 2103 232 92 E-Mail: info@koehler-adservice.de

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Infoletter & Magazine: no fee, registration required

Best magazine downloads: 53.175 (issue 2/2013)

New Subscribers in 2013: 1.077 new subscribers in 2013

Estimated readers: 75.000 (accumulated according to analyses: some companies put the Infoletter in their Intranet and a couple of readers forward it to colleagues)

Publisher

deep visions Multimedia GmbH In der Masch 6 D-22453 Hamburg Germany

Tel.+49 (0)40 57 00 4 - 800Fax+49 (0)40 57 00 4 - 888E-Mail:info@deepvisions.de

Editorial

TexData International GBR In der Masch 6 D-22453 Hamburg Germany

 Tel.
 +49 (0)40 57 00 4 - 900

 Fax:
 +49 (0)40 57 00 4 - 888

 E-Mail:
 redaktion@texdata.com

 editorial@texdata.com

Technology and Typesetting

deep visions Multimedia GmbH In der Masch 6 D-22453 Hamburg Germany

Tel. +49 (0)40 57 00 4 - 800 Fax +49 (0)40 57 00 4 - 888 E-Mail: info@deepvisions.de