imports of womenswear increased 0.8 per cent in value.

The report includes trade trends by sector, i.e. fibres, yarns, fabrics, carpets, technical textiles, home textiles, home textiles, workwear, mens and womenswear, by products and by EU main trading partners.

Imports of home textiles from outside the EU reached €6 billion in 2016, and were mainly divided among four countries: China (share 33 per cent), Pakistan (25 per cent), Turkey (16 per cent) and India (11 per cent). Besides, there were remarkable gains in value for Vietnam, Morocco, Taiwan and Ukraine.

In 2016, EU imports of menswear climbed to more than €20 billion, accounting for 25 per cent of total clothing imports. Of the five main imported menswear items (trousers, shirts, coats, underwear, jackets), only shirts suffered weaker demand. China remained the main supplier of menswear. In value terms, its share of total imports stood at 28 per cent, representing another year of steady decline. The EU-28's second ranked supplier, Bangladesh, continued its inexorable rise adding 8.5 per cent to improve its market share. A comparable situation was observed in imports coming from Pakistan which added 5.8 per cent in value. Imports of womenswear reached €29 billion, constituting 36 per cent of total EU-28 clothing imports. Imports rose for the five main imported items: trousers, skirts and dresses, coats, blouses and underwear. China continued to be the main supplier but its share was being eroded year-onyear. Due to continued annual expansion of its import share, Bangladesh was inevitably next in line behind China, with value increasing by 13.7 per cent. In third place, Turkey continued to be a preferred traditional supplier even with a slight dip of 0.3 per cent.

Chinese, South Korean, Indian apparel makers landing in Ethiopia

Ethiopia is fast developing into a dynamic apparel-sourcing hub as low labor costs lure international clothing makers to the African nation.

Manufacturers from China, South Korea, India and other countries have opened new plants in the continent's second most populous nation while a growing number of European and U.S. brands are sourcing garments there.

A significant factor in Ethiopia's emergence on the clothing scene is the planned opening of a new railway line to a port in neighboring Djibouti, located on the Horn of Africa in the Arabian Sea. The railway will facilitate transport of goods from the landlocked country's industrial areas, like the Bole Lemi Industrial Park, an hour's drive from the capital Addis Ababa.

Opened in 2015, the sprawling 150-hectare park is bustling with Chinese, Taiwanese and South Korean production facilities, conveniently clustering factories for textiles, apparel products and leather shoes in one area.

At a factory operated by Shin Textile Solutions, a South Korean company, workers sit at long rows of machines sewing mainly sportswear. According to the general manager, the plant's entire output is exported, with about 60% going to Europe, 20% to the U.S. and the remainder to Asia.

Japan's Fast Retailing, which manufacturers and sells casual clothes under the Uniqlo brand, is among the many apparel makers that has shown interest in the plant, the manager said. As part of its efforts to turn the country into an thriving, middleincome economy by 2025, the government has been building industrial parks. The newest is Hawassa Industrial Park, a onehour flight from the capital. Among the 15 companies with manufacturing facilities there is PVH, a U.S. apparel company. PVH's 280 employees produce garments for a number of international brands including Calvin Klein, then exports them to Europe and the U.S.

Vietnam to build fashion, textile, trading centers

Vietnam's Ho Chi Minh City will build large centers for designing fashion, trading garment, textile material and accessories to become the country's garment, textile and accessory hub. The city wants to meet 80-90 per cent of Vietnam's demand for garments and textiles by 2020, and supply 100 per cent of accessories for its garment industry.

However, Ho Chi Minh City will not establish large-scale garment and textile industrial parks, because the existing ones can accommodate all relevant enterprises, according to the municipal Department of Industry and Trade.

According to approved plans, the city has 23 industrial parks and export processing zones, of which 17 are operational. Most of garment and textile firms are now located in the export processing zones of Tan Thuan and Linh Trung, and the industrial parks of Tan Thoi Hiep, Tan Binh, Tan Tao, Tay Bac Cu Chi and Dong Nam.



Rieter Acquires The SSM Textile Machinery Division From Schweiter

Rieter acquired the SSM Textile Machinery division (SSM) from Schweiter Technologies AG, Horgen, Switzerland.

SSM is a supplier of precision winding machines in the fields of dyeing, weaving and sewing thread preparation and enjoys success in individual segments of filament yarn production. In the fiscal year 2016, SSM generated net sales of 85.9 million Swiss francs with 246 employees and achieved an EBITDA margin of 14.8 percent.

The purchase price amounts to 124.2 million Swiss francs, consisting of an enterprise value of 100.0 million Swiss francs and liquid funds. Rieter is financing the purchase price from existing funds. The acquisition will have a positive impact on earnings per share.

SSM comprises the companies SSM Schärer Schweiter Mettler AG in Horgen and subsidiaries in Italy and China. SSM is also represented worldwide with 12 of its own service stations and 80 agents in all major markets.

With this acquisition, Rieter is investing in adjacent fields of the textile value chain. SSM has a strong brand and generates stable cash flows with an attractive EBITDA margin. SSM's expertise in the field of precision winding offers opportunities for Rieter in the business with short-staple spinning machines.

Industry 4.0 a boost to Italian textile machinery

The Association of Italian Textile Machinery Manufacturers (ACIMIT), a private body for Italian machinery, has announced the figures relative to 2016 at the annual Assembly of Italian textile machinery manufacturers, showing further growth, compared to previous year. There is innovation in the future of the Italian textile machinery provided by Industry 4.0.

In 2016, Italy's production of textile machinery rose 5 per cent compared to 2015, thereby reaching a value of \notin 2.7 billion. During the same period, exports grew by 4 per cent, amounting to \notin 2.3 billion. This reinforces the positive trend already observed in 2015, and is the result of a substantial confirmation of the state of foreign markets, as well as growth for Italy's domestic market (indeed, domestic sales of Italian manufacturers increased 14 per cent). The various incentives implemented by the Government's policy no doubt have played an essential role in kick starting domestic demand.



Rieter to host Com4 Yarn seminar in October

Rieter, a leading supplier of textile machinery and components used in short staple fibre spinning, is set to host the Com4 Yarn seminar 2017 in October 5 and 6, 2017, in Winterthur, Switzerland. Experts from Rieter and Uster Technologies AG will impart knowledge on the day-to-day textile activities of yarn traders and downstream processors. The core focus of the seminar is on the properties of the yarns and their influence on the fabrics.

Yarn determines the characteristics of a fabric. Someone who wants to select the most suitable yarn needs the relevant knowledge. In the Com4 yarn seminar 2017, experts from Rieter and Uster, therefore, provide the necessary textile knowhow and give insights into the world of yarns and fabrics.

Rieter offers seminar participants the opportunity to not only see the four different spinning technologies, but also to virtually experience them. The yarns spun from them show clear differences in their structure and the differences are also reflected in the fabric. These correlations will become clear to the participants as soon as the samples are touched and compared with one another.

EU home textiles & clothing imports surge in 2016

Taking advantage of lower average unit prices, home textiles imports from outside the EU-28 increased in 2016, according to The European Apparel and Textile Confederation, Euratex. During the year, EU imports of menswear showed 0.5 per cent increase in value and 4.4 per cent in volume terms, while





World Textile News

Online application for ITMA ASIA + CITME 2018 exhibition space opens

Leading textile machinery manufacturers from around the world are invited to apply for space at the sixth combined ITMA ASIA + CITME exhibition to be held at the National Exhibition and Convention Centre, Shanghai from 26 to 30 October 2018.

According to show owners CEMATEX and Chinese partners, the Sub-Council of Textile Industry, CCPIT (CCPIT-Tex), China Textile Machinery Association (CTMA) and China Exhibition Centre Group Corporation (CIEC), the mega textile machinery exhibition is expected to draw a positive response. To enhance the country's position in the global value chain, the Chinese government has drawn up a roadmap to upgrade the industries through innovation. Its 'Made in China 2025' strategy aims to drive manufacturers swiftly towards smart industrial production and valued-added manufacturing.

The last ITMA ASIA + CITME combined show in 2016 welcomed the participation of 1,673 exhibitors from 28 economies and registered a visitorship of over 100,000 from 102 countries and regions.

Imports of PSF from Asia cause injury to US firms

The US International Trade Commission (ITC) has made a unanimous preliminary determination that unfairly-traded imports of fine denier polyester staple fibre (PSF) from China, India, Korea and Taiwan are causing injury to US producers. The preliminary injury determination means that the antidumping duty and countervailing duty cases will proceed. The antidumping duty cases will proceed against China, India, Korea, and Taiwan, while China and India will also face countervailing duty cases.

Major US polyester fibre producers – Dak Americas LLC, Nan Ya Plastics Corporation, America, and Auriga Polymers Inc – filed petitions with the ITC and the US department of commerce on May 31, 2017 alleging that dumped imports of fine denier PSF from all four countries, and subsidised imports of fine denier PSF from China and India, are causing material injury to the domestic industry.

Imports of fine denier PSF from the four subject countries increased by nearly 68 per cent between 2014 and 2016. The import surge was driven by low import prices that undersold the domestic industry, causing US producers to lose significant sales and profits.

Fine denier PSF, the product covered by the petition is a synthetic staple fibre of polyesters measuring less than 3.3 decitex (3 denier) in diameter. It is generally cut in lengths of less than five inches (127 mm) and is similar in appearance to cotton or wool. It is typically converted either to yarn for weaving or knitting into fabric or to a non-woven textile prior to the end-use application. Woven applications include the production of textiles such as clothing and bedding linens. Non-woven applications include the production of household and hygiene products such as cleaning wipes, baby wipes and diapers.



Thus, Iran earned over \$1.13 billion in revenue from exports of textile items during the year, which was 1.7 per cent decline compared to the earlier year.

13% of Industrial Jobs Generated by Textile Industry

Currently, 9,818 industrial units are active in Iran's textile and apparel industries licensed by the Ministry of Industries, Mining and Trade, constituting 11% of all industrial entities in the country.

These units have created more than 290,000 direct jobs, accounting for 13% of all industrial jobs in Iran.

The above figures were reported by director general of Textile and Clothing Department at the Ministry of Industries, Mining and Trade, Afsaneh Mehrabi, as reported by the ministry's official news service Shata.

The textile and apparel industry is one of the oldest, biggest and the most important industries in the world, which has been able to gain a strong industrial, economic and social position in terms of high job creation, earnings and added value in most countries, including advanced economies.

The industry has a major share in developing a country's industrial production, job creation and exports, and plays an important role in those countries' advancement.

The global textile and apparel industry's exports, amounting to \$800 billion per annum, make up 6.5% of the world's industrial exports and 4.5% of the world's total exports.

Iran's textile and clothing industry's \$850 million worth of annual exports (excluding hand-woven carpets) constitute a 0.1% share in global markets.

Including hand-woven carpets, the figure stood at more than \$1.2 billion in the last Iranian year (March 2016-17).

"Textile exports alone stood at over \$620 million last year, registering a 1% increase year-on-year," Mehr News Agency quoted Alireza Haeri, former chairman of the Association of Iran Textile Industries as saying.

Textile flooring topped the list of exports in this sector, with a 45% share (around \$280 million).

According to Mehrabi, Iran is the 36th biggest exporter of textile products and the 90th biggest exporter of apparel in the world. Taking into account both textile and clothing products, the ranking stands at 59th.

As for imports, over \$1.6 billion worth of textile products were imported into Iran last year. Taking into account the related equipment and machinery, the figure reaches \$1.9 billion. The main import was fabrics worth \$500 million–70% more compared to the previous year. Other major products imported were fiber (\$440 million) and yarn (\$300 million).

In addition, the import of black fabrics used to make chador (a full body-length fabric worn by many Iranian women) saw a 73% increase compared to the year before to stand at \$125 million.

The above-mentioned value of imports, Haeri said, only pertains to legal imports.

To reach a more realistic figure on the total amount of imports, a further \$2-3 billion should be added to include illegal imports, which would bring the total amount of textile product into Iran last year to \$4-5 billion.

Textile Exports Hit \$1.1b Last Year

Some 189,400 tons of textile products worth more than \$1.13 billion were exported in the last Iranian year that ended March 20, 2017, registering an 8.1% rise in weight and a 1.7% decrease in value compared with the year before.

Nearly 5,700 tons of hand-woven carpets worth \$345.7 million were exported during the period, indicating a 7.5% and 18.4% year-on-year growth in tonnage and value respectively, Iran Chamber of Commerce, Industries, Mines and Agriculture's news portal reported. The increase in carpet exports is mainly attributed to the implementation of the Joint Comprehensive Plan of Action (the formal name of the nuclear deal Iran signed with world powers in 2015), which made it possible for Iran to resume hand-woven Persian carpets to the US, traditionally the biggest market for the Iranian product.

The US banned the import of Iranian carpets, among other products, in September 2010.

About \$306.5 million worth of machine-woven carpets weighing 55,500 tons were exported, showing a 4.3% rise in weight and 8.9% decrease in value year-on-year.

The export of textiles stood at 98,500 tons worth \$278.3 million, registering an 8.6% and a 1.7% YOY growth in weight and value respectively. Some 3,800 tons of apparel and 8,100 tons of leather products worth \$46.2 million and \$61.3 million respectively were exported. Apparel exports indicated a 2.6% and 3.9% YOY decline in weight and value respectively while leather product exports experienced a 15.7% and 3.2% YOY growth in volume and value respectively.

Finally, 17,800 tons of shoes worth \$96.6 million were exported, showing a 17.9% rise in weight and 33.1% fall in value.





Iran Textile News

First apparel industrial park to come up in Iran

Iran is slated to get its first ever apparel industrial park which will be set up by the public, private and cooperative sectors of the country. The park is being established with an aim to meet domestic demand and boost exports. A memorandum of understanding (MoU) has already been signed between various parties of the country in this regard.

The industrial park will come up near Imam Khomeini International Airport in Tehran and will be spread over an area of 190 hectares. It will be extendable to 300 hectares, said an Iranian news agency quoting Ali Yazdani, Chairman of Iran's Small Industries and Industrial Parks Organization during the MoU signing ceremony.

The first phase of the park has already been designed and the development has started for the second phase. It will have around 300 apparel manufacturing units in addition to other service providers like hotels, design centres and training institutes. Brands from Italy and other countries will also participate in the industrial park, as per Yazdani.

He added that the private sector of Iran is responsible for developing the manufacturing and trading spaces, while the public sector will develop its infrastructure. About 3,000 to 5,000 square metres of area is dedicated to each of the service and production unit. Close to 30 trillion rials (\$791.139 million) will be invested to develop an area of 1 million square metres, said Yazdani.

Investors from countries like China, Italy, Turkey and South Korea have shown their interest in the ongoing project.

The apparel industry has the potential to create the highest number of jobs, said Hamid Kalantari, deputy minister of cooperatives, labor and social welfare.

The MoU was signed between Iran's Small Industries and Industrial Parks Organization, Cooperative Investment Guarantee Fund, ministry of cooperatives, labor and social welfare, Iran's Clothing Association, and Tose'e Ta'avon Bank.

Iranian handwoven carpet exports rise 18.4% last year___

The exports of handwoven carpets from Iran increased by 18.4 per cent year-on-year to \$345.7 million in the last Iranian year that ended on March 20, according to Iran Chamber of Commerce, Industries, Mines and Agriculture. In terms of quantity, Iran exported 5,700 tons of handwoven carpets during the year, registering a growth of 7.5 per cent.

The increase in handwoven carpet exports was mainly due to the resumption of exports to the US post-implementation of the Joint Comprehensive Plan of Action (or the nuclear deal signed by Iran with world powers in 2015). Traditionally, the US is the biggest market for Persian carpets.

Iran also exported 55,500 tons of machine-woven exports valued at \$306.5 million during the 12-month period, indicating a decrease of 8.9 per cent and a rise of 4.3 per cent, respectively.

The exports of other textile items weighed 98,500 tons and were valued at \$278.3 million, showing a year-on-year growth of 8.6 per cent and 1.7 per cent, respectively.

Some 3,800 tons of apparel worth \$46.2 million and 8,100 tons of leather products valued at \$61.3 million were also exported during the year.





Figure-4 The Adidas jersey developed for All Blacks Rugby Team

treatment of medical ailments for over 100 years due to its natural antibacterial and anti fungal properties." [8] However, incorporating the medical properties of silver in to the equipment has been a challenge. This is where nanotechnology comes in. "NanoHorizons of State College, Pa., this fall said it developed silver nano-particles that can mesh with the cotton, plastic or nylon material in shoes, pads, jerseys, helmets, socks or other pieces of sports equipment." [3]

This is accomplished by making nano-silver particles that typically measure around 25nm. This gives the particles a small volume, but a very large surface area at the same time. The large surface area enables the particles to interact with more bacteria and fungi, which greatly improves its effectiveness in killing them. "The nano-silver suppresses respiration, basal metabolism of electron transfer system, and transport of substrate in the microbial cell membrane." [8] This process inhibits the multiplication and growth of the bacteria and fungi, therefore leading to much cleaner and better smelling equipment.



Figure-5 A towel treated with SilverSure which is a nano-silver particle treatment that fights bacteria and fungi.

The sport of golf is also impacted by nanotechnology is a similar fashion as tennis.

Breakthroughs in the production of lighter, yet strong, composite materials has greatly impacted the design of golf clubs. For example, Wilson is using a nano-composite to replace the titanium crown used on its current golf clubs. The result of this is to lower the weight and center of gravity of the club, thus increasing the power and accuracy potential of the club. In addition, the stronger materials used to produce the shafts used on golf clubs will render them more reliable and increase their service life. The golf balls have also reaped benefits of advances in nanotechnology. [3] The ability to control the production of materials on the molecular level has enabled companies to develop a golf ball that does not suffer from having an uneven spin. This allows for a ball that flies along a much straighter path. [2]

The purpose of this paper was to show only a small portion of the current and possible future applications of developments in nanotechnology. Though none of the topics covered in this paper seem to have an important direct impact on the world, nanotechnology's applications do cover life changing fields such as medicine. To ignore the importance of nanotechnology would be a grave failure of the science world. Nanotechnology will be a very significant branch of research to further improve our society in the future.

References

[1] Amer Sports. March 2004. Amer Sports. 03 December 2008. http://www.amersports.com/media/news/view/powered_by_nanotechnology.html.

[2] Nanotechnology and Sports. Nanopedia: The web course of nanotechnology. 03 December 2008.

<a>http://nanopedia.case.edu/NWPrint.php?page=nw.nanosports>. [3] Nanotech could put a new spin on sports. 17 November 2004. USAToday. 03 December 2008.

http://www.usatoday.com/sports/2004-11-17-nanotechnology-sports_x. htm>.

[4] Nano helps with gold. Nano: The magazine for small science. 03 December 2008.

<http://www.nanomagazine.co.uk/readArticle.php?id=33>.

[5] Nanotechnology Now. 26 October 2008. Nanotechnology Now: Your gateway to everything

nanotech. 03 December 2008. < http://www.nanotech-now.com/news. cgi?story_id=31150>.

[6] Nanotechnology in Sports and Running Shoes. AZoNano: The A to Z of Nanotechnology. 04

December 2008. http://www.azonano.com/nanotechnology-video-details.asp ?VidID=64>.

[7] Bringing sports fans closer to brands through nanotechnology. 21 October 2008. BhatNaturally. 04

December 2008. < http://www.lbhat.com/advertising/this-is-not-a-jerseyall-blacks-adidas-newzealand/>.

[8] Bath and Sports Towels. 4 June 2007. PEN: The project on emerging nanotechnologies. 04

December 2008. ">http://www.nanotechproject.org/inventories/consumer/browse/products/5431/>.



to only 2% of fabric weight. This is an amazing breakthrough compared to the 50% absorption of previous materials

made specifically for low drag swimwear. These new materials also have huge potential is other sports and applications. Because the material rejects moisture, these fabrics can be used to manufacture clothing that repels sweat, leaving the athletes dryer. It can also be used for bicycle riders who wish to cut down on the drag caused by their clothing. [4]

Like swimming, where friction reduction is an important concern, nanotechnology has made it way in to the world of racing. In particular, it has made land speed record setting cars even faster.

To prove this, Nanotec-USA applied their Nano-Bionics treatment to the Nish Motor Sports' speed car prior to the Speed Week 2008 at the Bonneville Sand Flats in Utah this year. Despite using a 50% less than usual mixture of Nitro Methane fuel mixture, they were able to obtain a speed that was 37 miles per hour faster than their previous top speed. This state-of-the-art treatment makes any surface that it is applied to ultra smooth. "The self-assembling nano-particles dock directly to the molecules of paint and metal, within the pores of the material. The NanoBionics Smart Particles/ molecules self-align themselves, forming new structures." [5] This product also has the beneficial side-effect of making any surface it is applied to much easier to keep clean. Simple soap and water methods of cleaning will keep the surface looking very good. This technology also has great potential is markets such as airliners, automobiles, high speed trains, and watercraft by increasing fuel efficiency due to largely decreased drag. When tested on a commercial aircraft, it was found to decrease fuel consumption by 3%. This will reportedly reduce airliner operational costs by over \$5,000,000.00 a year on fuel alone. [5]



Figure-2 Nish Motor Sports team with their Nano-Bionics treated Streamliner. [5]

Athletic shoes are an interesting product to design because of the fact that they have to be soft in order to absorb the impact of usage, and yet they still have to be hard enough to still maintain their shape and not "deaden out" as they are used. This has been a difficult problem for designers to overcome, but nanotechnology has proven to be useful in solving this problem. The solution to this problem is the shoes are made of a mix of both hard and soft particles. Nanotechnology comes in to play because the particles used are the size of molecules, and it enables the designers to control the mixture. [6] Like the high-tech swimwear, these new nanotechnology shoes have already seen their application in Olympic level competition this past year. Jeremy Wariner, using a new shoe designed specifically for him using nanotechnology by Adidas, was able to win the silver medal in the men's 400m race. This new shoe "is believed to be one of the most technologically advanced and lightest running shoes to ever hit the track." [4] The shoe "provides Wariner more stability, comfort, better torsion, safety and increased flexibility while minimizing the energy loss." [4]



Figure-3 The "Lone Star spike" shoe used by Jeremy Wariner in the 2008 Olympic Games.

Nanotechnology is even giving sports fans the chance to feel an even more intimate connection to the teams they love. Adidas has launched a promotion in New Zealand aimed at involving the fans of the nationally inspiring rugby team, The All Blacks, to an all new level of commitment. Adidas wants to take the names of thousands of the team's fans, and engrave them on to a single thread that will be used to make one of the jerseys worn by the rugby team. This jersey would then be presented to, and worn by, All Blacks' team captain Richie McCaw. [7] Along with the fan's names, the names of all 1073 past and present All Blacks players will be etched on to the thread. The team is also very excited about the idea of having their fans be a part of the team jerseys.

One of the biggest and most universal problems in the sports world is that of smelly gym clothes and sports equipment. Sports equipment is traditionally one of the best breading grounds for bacteria and fungi that "cause infection, odor, itchiness sores and smelly feet." [8] If these bacteria and fungi could be kept under control, so could the smell of the clothes and the spread of infections. "Silver has been used for the



Article Nano in Sports Equipment



Dr Farnaz Nayeb Morad



Nanotechnology is a branch of research that has gained much momentum in recent years due to its wide application of its principles and products. The application of nanotechnology research ranges from fields such as disease prevention and treatment to advanced and improved electronic devices. Nanotechnology has even found applications in the wide field of sports. Within the niche of sports, nanotechnology has proven to very useful, and has the potential to improve a broad range of aspects of the sports world.

Scientists are always looking for new and innovative ways to improve existing products, and sports equipment is no exception. Already, scientists have found numerous applications of nanotechnology to improve current sports technology. These improvements range from creating stronger, yet lighter, golf clubs to taking away the odor normally associated with dirty sports clothing after it has been used.

The game of tennis is a prime example of how nanotechnology is having an interesting impact on sports equipment. According to present research, equipment producer Wilson has been able to create tennis racquets that are twice as stable conventional racquets, and up to 22% more powerful. [1] This increase in the racquet's performance capabilities can lead to big speed increases in what is already an extremely fast paced game. In addition to racquet research, Wilson is also conducting research to find innovative ways to improve the tennis balls used today. This research has allowed them to design balls that hold their bounce much longer than is seen in balls currently available on the market. This is accomplished by bonding microscopic balls of butyl rubber withclay particles.

This mixture is then applied to the inner layer of the ball, creating an airtight but still flexible boundary that keeps the gas inside the tennis much longer. [3] A visual explanation of the results of this new airtight boundary is found below in Figure-1.



Figure-1 Ordinary tennis ball (left). New Wilson tennis ball coate d with gas barrier (right). [2]

The impact of nanotechnology on the level of competitiveness of sports in present times became more evident than ever during the recent 2008 Olympics. American swimmer Michael Phelps was able to obtain eight gold medals while breaking seven world records at the same time.

He was accompanied by 25 others who broke world records at these Olympic Games. Though their amazing athleticism cannot be doubted, neither can the effect of their high-tech swimwear on these world record races. Nanotechnology is allowing scientists to create new, ultra-lightweight swimwear that allows the swimmers to practically glide through the water. In fact, testing has shown that the developers have been able to reduce the water absorbed by the new fabrics ecological and economic responsibility," he said. The students have been given a choice between two potential approaches to developing their innovative floor coverings. They can either draw inspiration from the plant or animal kingdoms, or they can focus on renewable materials and ecological sustainability and work from there to develop a new type of floor covering. A key part of the brief is that their prototypes should still be in the experimental phase. The idea behind consciously avoiding production-readiness is to create an inspiring and visionary study of product individualization. Thus, in terms of its staging at DOMOTEX, the project will be a blend of research lab and design workshop and will provide insights into the work processes used by the students in developing their creations.

Virtual reality software that uses body movement to create individualized spaces Meanwhile, the students from the "Communication in Space" master's program at Mainz University of Applied Sciences' design school are working on spaces in which communication and information play a special role. For their project, "Individual Motion Space", the students are developing a virtual reality application that enables users to design individualized spaces in real-time using their own body movements and then translate their designs into real, physical spaces using digital production technologies. The project is headed by Professors Klaus Teltenkötter and Bernd Benninghoff. "The project uses motion sensors to capture the movement data so that it can be used to design a virtual three-dimensional space that can be implemented in a variety of potential forms. Algorithms then translate this 3D model into a format that can be used for digital manufacturing. The VR application itself and a 1:1 model of one of the potential implementations will be on display at DOMOTEX," Teltenkötter explained.

Custom carpet concepts

Saarland University of Art and Design (HBKsaar), Saarbrücken, will also have a presence in the "NuThinkers" zone. Under the leadership of Professor Katrin Greiling, Faculty of Product Design, the "NuThinkers" students are currently working on 12 individual projects. They include modular, eco-friendly carpet solutions that enable users to individually configure their own constellation of materials, patterns and shapes; a carpet that can be transformed from its normal two-dimensional form into a three-dimensional object and thus combines elements of traditional weaving with modern 3D printing; and a simple tool that can be used to individually tailor carpet dimensions, texture and pile.

The 12 projects will be presented to a selection jury on 24 July. The jury, headed by the renowned architect Peter Ippolito, of Büro Ippolito Fleitz Group, Stuttgart, will select the five finalists that will be exhibited at DOMOTEX. The students will then be given support to find manufacturers with the requisite skills and technologies to transform their ideas into reality.

A richly diverse and immersive world of experience

The "NuThinkers" zone is part of "Framing Trends" – an exciting new showcase in

Hall 9 that is sure to be an absolute visitor magnet at DOMOTEX 2018. "Framing Trends" is an immersive, emotionally charged showcase that will bring the show's UNIQUE YOUNIVERSE lead theme to life in a celebration of innovation, inspiration and international collaboration. There are also three other zones in the Framing Trends area: Flooring Spaces is where companies from the floor coverings industry will stage highly creative product showcases. Then there's the Living Spaces zone, where exhibitors will team up with partners from the interior design sector to stage unique interior spaces, inspiring designs for future living, and innovative lifestyle realms. And, finally, there's the Art & Interaction zone, which will provide an artistic perspective on UNIQUE YOUNIVERSE. The lineup will also include tried and tested formats such as talks and guided tours.



VOUNIVERSE

DOMOTEX 2018 (12 to 15 January): "NuThinkers" at DOMOTEX 2018: reinventing floor coverings

The product individualization trend as approached by young, up-and-coming designers from the universities of Hannover, Mainz and Saarbrücken

Hannover. Original designs, amazing interior spaces and intelligent solutions: That's the experience that awaits visitors to DOMOTEX 2018 when design students, young emerging designers and flooring-savvy startups get together to stage their innovative, visionary ideas inspired by the show's "UNIQUE YOUNIVERSE" keynote theme. The bright young pioneers of tomorrow's floors will open up fresh new perspectives on the world of interior design as they stage their unconventional creations in the "NuThinkers" zone that forms part of new "Framing Trends" display area in Hall 9. The talent lineup will include students from the universities of Mainz, Hannover and Saarbrücken, who will present their own unique interpretations of the individualization megatrend. "NuThinkers' is a platform for creative ideas and experimental design. It is a key highlight and meet-up zone for all DOMOTEX visitors who want to experience life beyond the mass market and sample some of the more out-of-the-ordinary creations and directions being pioneered by the next generation of designers," commented Susanne Klaproth, the director in charge of DOMOTEX at Deutsche Messe.

Revolutionary, creative floor coverings

The "Nuthinkers" showcase mounted by the students from Hannover University of Applied Sciences and Arts is called "Innovative Flooring". 14 students from the university's interior architecture and design program are currently designing creative new floor coverings that they will be presenting at the show in prototype form. "As future designers, the students are tasked with developing practicable, sustainable products," explained Guest Professor André Nakonz of the Faculty of Media, Information and Design, who is heading the project along with the university's Professor Suzanne Koechert. "As an expression of the individualization trend, the keynote theme UNIQUE YOUNIVERSE fits in perfectly with our objective of combining superior design values with





PRESS RELEASE

June 2017



Sales Success in Turkey

On the exhibition Techtextil in Frankfurt DiloGroup was able to conclude two orders for machine deliveries to Turkey.

One complete installation consisting of fibre preparation, card feeding MultiFeed and a wide working width card will be delivered in February 2018 to Merkas Tekstil San. ve Tic A. S. Merkas Tekstil is in the hygiene sector and produces carded respectively air-through bonded high loft nonwoven products such as Acquisition Distribution Layer (ADL), topsheet, textile edge and ATB facings for backsheet products, used e. g. in baby diapers, sanitary napkins and adult incontinence products... Merkas delivers its products to domestic and foreign markets and increases its production capacity and variety with the aid of the new production line.

Hassan Tekstil San, ve Tic, A.S. produces nonwovens which are used e.g. in the automotive, as wipes, insulation products and geotextiles. The line consists of opening and blending equipment, a MultiFeed card feeder, MultiCard and lap drafter, DLS crosslapper and highspeed Hyperpunch needle looms in large working width. Delivery is scheduled for March 2018. With the investment in the new line Hassan Tekstil will improve the product quality and increase its production capacity.

Both companies belong to the Hassan Group.

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STRONG DEMAND FOR ITMA 2019 EXHIBITION SPACE

25% OF SPACE SNAPPED UP WITHIN FIRST SIX WEEKS OF LAUNCH

27 June 2017 – ITMA 2019, the world's largest textile and garment technology, has received strong response since online applications opened in May. Some 25% of the exhibition space has been booked by more than 300 exhibitors during the first six weeks, according to ITMA Services, the organiser of ITMA 2019.

press release

> Mr A.E. Roberts, Managing Director of ITMA Services, attributed the strong demand to the success of ITMA 2015 and the rapid technological developments within the textile and garment industry. He said, "We are delighted with this excellent response. The total space booked to-date is an impressive 150% increase when compared with the same period of ITMA 2015's application launch."

> He added, "ITMA has an excellent reputation and many global industry players are looking forward to using it as a launch pad for their new innovations. Among the sectors that have enjoyed the greatest take-up so far are finishing, printing, spinning, weaving and knitting, and we are particularly pleased with the strong response from Asian countries, particularly India which has already surpassed 60% of the total space it booked in the 2015 show. It is also encouraging to see that manufacturers of raw materials and garment machinery are also applying early, and our exhibitors clearly appreciate the fact that ITMA is a complete, end-to-end solutions showcase, from fibre to finished textile products."

> Mr Fritz P. Mayer, President of CEMATEX, the European Committee of Textile Machinery Manufacturers, which owns the ITMA exhibition, explained: "There is an enormous amount of research and development in the textile and garment industry, resulting in exciting new technologies and value-added products.

> "Some of the powerful innovation drivers impacting the industry include digitisation of products, processes and supply chains, as well as sustainability. Hence, despite the challenging business climate, the demand for leading-edge products continues to grow, and technology providers are still leveraging on ITMA 2019 to launch their new solutions to global textile and garment

manufacturers and brands."

The last ITMA exhibition, held in Milan in 2015, drew the participation of 1691 exhibitors from 46 countries. A post-show exhibitor survey found that over 90% of them rated their overall experience 'good' or 'excellent', and 93% indicated their interest to return to exhibit at the next ITMA, and that there is a strong competitive advantage exhibiting at ITMA compared with other shows.

ITMA 2019 will be held from 20 to 26 June 2019 at Fira de Barcelona, Gran Via venue. Featuring the theme 'Innovating the World of Textiles', it will have exhibits showcasing an integrated textile and garment manufacturing value chain. Divided into 19 chapters, exhibits also include yarns, fibres and fabrics, and solutions for technical textiles and nonwovens, and garment making.

Manufacturers interested to participate in ITMA 2019 should apply for space online at www.itma.com. For participation enquiries, please email: application@itma. com.

About CEMATEX & ITMA

The European Committee of Textile Machinery Manufacturers (CEMATEX) comprises national textile machinery associations from Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and the United Kingdom. It is the owner of ITMA and ITMA ASIA. Considered the 'Olympics' of textile machinery exhibitions, ITMA has a 66-year history of displaying the latest technology for every single work process of textile and garment making. It is held every four years in Europe. About ITMA Services

Headquartered in Brussels with a subsidiary in Singapore, ITMA Services is the appointed organiser of ITMA 2019 and future ITMA branded exhibitions. It is managed by professionals with extensive experience in organising ITMA and other major trade exhibitions around the world. It aims to maintain and expand ITMA's unique selling proposition and relevance to a global audience.