ITMA 2015 Gets Bigger and Greener

The expansion of ITMA 2015 into an 11th hall at the Fiera Milano Rho is a reflection of the intense importance being placed on this event by the whole textile-machinery community. Sustainability is the central theme for ITMA 2015 and the new hall will house sectors that are at the forefront of this effort – Fibre and Yarn, Research and Education, Colourants and Chemicals, Software and Recycling. In addition, a new dedicated chapter recognises the increasing centrality of the Printing sector in the story of textile sustainability, with the rise of digital technology bringing its own environmental gains.

This is a theme that will recur in the many knowledge exchange and networking platforms that will be part of the ITMA programme – certainly at the World Textile Summit, which will explore questions of sustainability in the context of business strategy, but also no doubt at the Research and Education Speakers’ Platform, Nonwovens Forum, and Textile Colourants and Chemicals Leaders Forum.

And as announced in the last Bulletin, the ITMA Sustainable Innovation Award will be launched at the 2015 event, recognising outstanding industry members and post-graduate students for their contributions to the sustainable development of the global textile and garment industry. The three categories will be: Industry Excellence Award, R&E Excellence Award – Masters, and R&E Excellence Award – Doctorate, with the latter two open to post-graduate students. The winner of the Industry Excellence Award category will receive a cash prize of €10,000. For the Research & Education Excellence Award, the winner of the Doctorate and Masters categories will receive a cash prize of €5,000 and €4,000 respectively.

All this makes ITMA 2015 the perfect venue to ‘Master the Art of Innovation’.

Charles Beauduin, President, CEMATEX
www.cematex.com
Chemical Information Online from EPA

The US Environmental Protection Agency (EPA) has posted additional data and added new functions to its ChemView online tool for information on chemicals regulated under the Toxic Substances Control Act (TSCA).

James Jones, Assistant Administrator for the Office of Chemical Safety and Pollution Prevention, said: “In the absence of TSCA reform, EPA is moving ahead to improve access to chemical health-and-safety information, and increase the dialogue to help the public choose safer ingredients used in everyday products. The additional data, along with a customer satisfaction survey, will make chemical information more readily available for decision-makers and consumers.”

The enhanced data functions include:
- improving the display and content for the Chemical Data Reporting information, adding a new link that displays the pollution-prevention information generated as part of the Toxics Release Inventory programme, and launching an administrative tool that will save EPA resources by streamlining the loading of future information.
- The updated database now includes 244 consent orders, an additional 1,205 Significant New Use Rules (SNURs) for new and existing chemicals, 16 additional chemicals with test rule data, and updates to the Safer Chemicals Ingredient List. This is the first time EPA has posted consent orders and new chemical SNURs to ChemView. With these additions, ChemView now contains information on almost 10,000 chemicals.
- The EPA says it is also encouraging people to complete a ten-minute customer satisfaction survey to help guide future improvements to ChemView. This survey asks about how people use ChemView, the usefulness of the tool, how it can be optimised to help advance chemical safety, and suggestions for additional content and functionality. EPA will use the information from the survey to continuously improve ChemView. ChemView was launched in 2013 to increase the availability of information on chemicals as part of its stated commitment to strengthen its chemicals programme and improve access to and usefulness of chemical data and information. The tool displays key health-and-safety information and uses data, with links to more detailed information. Searches can be conducted by chemical name or Chemical Abstracts Service number, use, hazard effect, or regulatory action and has the flexibility to create tailored views of the information on individual chemicals. http://java.epa.gov/chemview

ITMA Grows in Response to Market Demand

With sustainability as its central theme, ITMA 2015 is enjoying almost unprecedented demand from exhibitors at is to expand into an 11th hall at the Fiera Milano Rho. All ten of the original halls were fully booked more than one year before the event, which runs from November 12-19. The extra hall is on the second level of the venue and is centrally located near the south entrance where the ITMA conferences are scheduled to take place.

In a further response to market developments, the organisers have created a dedicated chapter for printing technology. Digital printing of textiles is expanding rapidly, in a trend stimulated by quick response, reduced inputs of water, energy and consumables, and the design advantages of high definition and freedom from repeat patterns.
Companies ‘Prefer Bio-based Products’

Companies are increasingly looking to create consumer goods produced from plants rather than petroleum-based materials, according to an article in the American Chemical Society’s Chemical & Engineering News (C&EN) publication.

Article author Melody Bomgardner noted that a range of companies, from start-up firms to industrial giants, have been searching for ways to fill a growing consumer demand for sustainable materials. Invista and Genomatica say they will pursue nylon intermediates from sugar, so as to create elastane fibres from dextrose derived from corn. However, Ms Bomgardner explained that trading-in all conventional materials for alternatives that might be more sustainable will not be easy. The main challenge to this shift is economics, according to the article. Prices for bio-based raw materials to feed the supply chain must drop to competitive levels and manufacturers must invest in new facilities to process the raw materials, it said. Ultimately, the author believes consumers and their willingness to spend will likely decide just how far this trend will go.

Guangdong Esquel Gains First Chinese STeP Certificate

Guangdong Esquel, the largest production campus of Esquel Group, has become the first production facility in China to be awarded STeP by Oeko-Tex certification for what auditors call ‘exemplary’ sustainable textile production.

“The topic of sustainability is certainly not new to us,” said Zeng Jun, quality systems management (QSM) at Guangdong. “It’s quite the opposite. We have been employing a holistic approach towards maximising quality whilst driving sustainability in every sphere of our businesses.”

For the STeP certification, assessments were made on handing of chemicals and possible hazardous materials, the company’s environmental performance, social responsibility to employees, safety in the workplace and quality management.

Adrian Meili, of Testex, led the audit with his fellow auditors Patrick Lam, Kim Ho Chan and Fontane Au from the Hong Kong based subsidiary Testex Swiss Textile-Testing. One of the highlights during the audit visit is its use of solar energy for hot water production and steam production for ironing work.

Mr Meili said: “The results achieved in both of the Guangdong Esquel Textiles production facilities go far beyond the basic requirements for STeP certification, taking them up to the maximum level. At this level, the measures for sustainability implemented by the company are certified as exemplary.”

The manufacturer of cotton shirts and polo-shirts carried out the assessment required for STeP certification, including the company audit, in just a few weeks.

Mr Jun said: “We are so thrilled to be the first textile enterprise in China to attain the Oeko-Tex’s highest classification. This not only recognises our environmentally friendly production, but also our application of socially responsible policies throughout the production chain.”

Esquel Group is one of the world’s leading textile and apparel manufacturers, with production facilities in mainland China, Malaysia, Mauritius, Sri Lanka and Vietnam, and a network of strategically located merchandising offices servicing key markets in mainland China, Japan, Europe and the US.
NatureWorks Revises Ingeo Eco-profile

NatureWorks has released the first findings of the updated eco-profile for its Ingeo biopolymers, showing that the production of these polymers emits fewer greenhouse gases and consumes less non-renewable energy compared to commonly used plastics such as polystyrene (PS), polyethylene terephthalate (PET) and polycarbonate (PC).

The revised profile is based on the latest version of PE International’s GaBi LCA software and database, and follows the ISO 14040/44 standards. The eco-profile of a polymer gives information such as the total energy and raw materials consumed and the total emissions to air, water, and soil from the cradle to the finished polymer pellet. An eco-profile is an essential input into any full life cycle assessment (LCA) conducted on consumer products made from that polymer, the company said.

“Our most recent eco-profile in 2010 was calculated using the methodology, the modelling software and core database in place at the time,” said Erwin Vink, environmental affairs manager at NatureWorks. “However, LCA tools and databases have progressed in the past four years, and we decided it was time to recalculate the eco-profile based on those advancements.

“While the Ingeo manufacturing process remains the same, what has changed are the LCA software modelling tools and extensively broadened LCA databases and datasets, which give us the most up-to-date and accurate picture on the greenhouse gas emissions and other commonly used indicators in LCA,” he added.

NatureWorks teamed with LCA consultant PE International, basing the update on PE’s GaBi6.3 modelling software. The most recent recalculated eco-profiles for Ingeo, PP, PS, PET, and PC show smaller overall greenhouse gas emissions for each polymer compared to previous European industry data, NatureWorks said. The ranking of the polymers from lower overall environmental impact to higher overall impact remained the same.

P&G Helps Typhoon-Hit Businesses

Hygiene products manufacturer P&G has helped get 1,600 local shops in the Philippines back up and running in the 12 months since the country was hit by the devastating Typhoon Haiyan – one of the strongest tropical typhoons ever recorded.

The company donated around US$1.7 million worth of its products, such as Pampers, Safeguard and Pantene, after the typhoon claimed thousands of lives and destroyed homes and businesses in the South East Asian country.

Working with charities Save the Children and World Vision, P&G also provided 25 million litres of safe drinking water through its P&G Purifier of Water technology.

P&G has since widened its Project Hope rehabilitation programme to help small community ‘sari-sari’ stores to rebuild and restock their businesses, through partnership with USAID, Rebuild and Coca-Cola. USAID has helped rebuild homes for families, in addition to rebuilding sari-sari stores, and P&G and Coca-Cola have then fully stocked the stores with their best-selling products, as starting capital for the storeowners. To date around 1,600 sari-sari stores have been reopened.

Anna Legarda-Locsin, head of communications for P&G Philippines, said: “Sari-sari stores are part of P&G’s core expertise and history in the Philippines, and this is one of the most meaningful ways we can help.”
Desso Launches Circular Economy Material Stream

Desso, the global carpets and sports pitches company, has developed a new material stream for its carpet tiles based on a partnership with a group of drinking-water companies in the Netherlands, in a bid to facilitate a circular economy.

As a Cradle to Cradle (C2C) company, Desso develops products that can be recycled in a non-toxic closed loop. The company’s vision is to develop environmentally responsible products that contribute to health and wellbeing in the built environment.

In collaboration with Reststoffenunie, an association of drinking-water companies in the Netherlands, Desso is upcycling re-engineered calcium carbonate (chalk) from local-drinking water companies such as Brabant Water and WML (Water Maatschappij Limburg). The chalk is positively defined in accordance with C2C criteria, Desso explained, and is used for the production of the company’s carpet tiles with EcoBase backing, which is C2C Silver certified and 100% recyclable in Desso’s own production process. Products with EcoBase backing will now contain on average 50% positively defined recycled content, the company said.

Desso is the first carpet company in the world to use the upcycled calcium carbonate (chalk) and expects to draw as much as 20,000 tonnes of chalk from its partnerships. Desso has launched its new Transitions collection with this positively defined recycled content. “This new development is a hugely exciting step forward in our vision to become a Cradle to Cradle company developing products that meet high standards of creativity, functionality and are also positive to human health and the planet,” said Alexander Collot d’Escury, CEO of Desso.

Desso is a member of the collaborative network, the Circular Economy 100, organised by the Ellen MacArthur Foundation.

Ethically Aware Cotton Growing

The Aid by Trade Foundation’s Cotton made in Africa (CmiA) standard has heightened its commitment to ethical sustainability with the promise to improve equal opportunities for women in cotton-growing regions and the introduction of benefits for organic cotton farmers. In addition to these localised benefits, a study has confirmed that CmiA is making a contribution to the fight against climate change, with minimised greenhouse gas emissions and water conservation.

For the former of these initiatives, CmiA is providing women in the CmiA cotton-growing regions with the opportunity to gain equal access to education and economic independence through training and financial support. Currently around 85,000 women benefit from the programme and, by joining a cooperative, receive financial support to cultivate fields, grow vegetables, and sell their harvest together.

Tina Stridde, managing director of the Aid by Trade Foundation, said: “By supporting women in the CmiA growing regions, we make a
significant contribution to helping CmiA smallholder farmers improve the living conditions of their families and entire communities [...] The cooperative’s activities are not only designed to advance and promote women, some groups invest their income to repair water pumps in the village or donate part of the harvest to school cafeterias.”

According to the United Nations, women in rural areas including indigenous women play a crucial role in promoting agricultural and rural development, improving food security, and in helping combat rural poverty. Alongside its commitment to improving the lives of women in cotton-growing regions, the Aid by Trade Foundation has launched CmiA-Organic Cotton, which is now available on the market thanks to successful verification by the Tanzanian cotton company BioSustain. CmiA Organic cotton is an extension of the Aid by Trade Foundation’s commitment to a more sustainable cotton production both for people and nature, which is having increasing success. The foundation is now dedicated to promoting organic cotton production in Africa as well as its competitiveness in international markets, as cotton is one of the main sources of income in the poorest regions of rural Africa.

Ms Stridde commented that the new CmiA Organic Standard should benefit “both the more than 9,000 successfully verified cotton farmers in Tanzania as well as textile companies worldwide” as the Aid by Trade Foundation is working on “market access for CmiA Organic cotton according to the market-oriented CmiA principles.” The new standard combines the existing Eco Standard EC No. 834/2007 and the Global Organic Textile Standard (GOTS) with the social and economic criteria of CmiA. By expanding the existing organic cotton standards to social and economic criteria from the CmiA standard, the foundation hopes to create more than just ecological added value with Cotton made in Africa-Organic in additional regions of Africa. The aim is to ensure higher yields, a fair income for farmers, and that there is investment in school infrastructure, significantly contributing to reducing poverty for organic cotton farmers in Africa. The foundation also hopes to increase the competitiveness of organic cotton originating from Africa, as a result of their marketable approach.

Not only does CmiA contribute socially and economically but expert reviewers Ulrike Bos, of the Fraunhofer Institute, and Dr Susanne Neubert, of the Centre for Rural Development (SLE) at the Humboldt University of Berlin, Germany, have said that: “The cultivation of CmiA cotton has less impact on the environment compared to conventional and irrigated cotton. The low amount of efficiently used resources and production facilities makes it possible to minimize greenhouse gas emissions that result from cotton production. Thanks to rain fed agriculture, a tremendous amount of water can also be saved.” Their review confirms the validity of the results of Cotton made in Africa’s (CmiA) Life Cycle Assessment Insight
The second life cycle assessment of Cotton made in Africa is our response to the growing interest among consumers and businesses in the environmental impacts of the production of goods such as textiles," explained Ms Stridde. The foundation commissioned the sustainability and software company PE International to review all the relevant production steps involved in CmiA cotton, from cultivation to ginning in the factory, in accordance with standardised methods of life cycle assessments.

Ms Stridde added: “With the publication of this study, we are pleased to be able to once again confirm the positive environmental impact of Cotton made in Africa. This enables us to provide manufacturers and consumers with useful facts with which the environmental impacts of Cotton made in Africa with cotton from other sources and other materials can be compared.”

The result of the Life Cycle Assessment (LCA) is claimed to substantiate the ecological added value of CmiA cotton and confirm the positive LCA from the study on the ecological footprint conducted by Systain Consulting in 2013. For this second study, PE International used two climatically representative growing regions: Côte d’Ivoire in western Africa and Zambia in southern Africa.

Due to the different scope and objectives of the two studies, the absolute figures of the results differ slightly from each other. To ensure credibility and adherence to ISO standards, both Ulrike Bos, who is an expert in LCA of renewable raw materials, and Dr Susanne Neubert, who is an expert in the fields of agricultural sciences and cotton production in the socio-economic and environmental context of Africa, reviewed the LCA prepared by PE International as independent third parties. The plan for the future is to extend the studies to other regions and harvest cycles.

Digitally Finished Textiles

TenCate Outdoor Fabrics has exhibited textiles with a technical finish applied by inkjet. At the trade and consumer event Kampeer en Caravan Jaarbeurs 2014, in Utrecht, The Netherlands, TenCate offered a preview of the output from its Factory of the Future in the shape of digitally finished cloth qualities for both tents and sun awnings. The breakthrough in the application of inkjet as a resource-efficient means of textile finishing is the result of work at TenCate subsidiary Xennia Technology, in partnership with Italy’s Reggiani Macchine. In November 2013, TenCate unveiled a new textile printer for awning fabrics, developed in conjunction with Reggiani and using UV inks from Xennia. In September this year, TenCate announced funding for the development of its Osiris continuous digital textile printer as a system for the application of textile finishes.

www.tencate.com
www.xennia.com
www.reggianimacchine.it

Cold Enzyme Bleaching

Novozymes has launched a cold enzyme bleaching product that is effective on denim at tap-water temperature and will use less energy and water than other bleaching technologies.

DeniLite Cold is based peroxidase enzymes and works without extra oxygen from either the air or water. As a result it has a rapid reaction
speed, with 90% of the reaction finishing within 10 minutes. The cold bleaching technology is also claimed to improve fabric durability, due to the gentle bleaching conditions, and allows different colour tones to be achieved with the same fabric, using different dye combinations.

www.novozymes.com

Adjustable Liquor Level
Thies has redesigned its soft-TRD series of dyeing machines to reduce water consumption and, at the same time, cut down on the use of chemicals, electricity and thermal energy. The machine’s dyeing vessel has been redesigned so that it no longer needs to be fully flooded during processing, but has a freely selectable fill level. The liquor level can be adjusted according to the type and quantity of the textiles being used. In addition, an intelligent vessel-wall temperature regulator allows uniform and simultaneous heating of the product, the liquor and the vessel wall even when the system is partially filled.

www.thiestextilmaschinen.com

Sustainable Garment Dyeing
Flainox has introduced the new USK version of its NRG series of garment dyeing machine, with major savings on consumption. The USK version uses 25% less power and up to 70% less water, steam and chemicals. The Eco-rinse function means the cooling water from the exchanger can be introduced in the machine to assist in temperature reduction and begin the first phase of washing. The Eco-shower function allows the bath water to be re-circulated from the top of the machine directly into the drum, delivering a further reduction of the bath ratio in the dyeing phase and impressive efficiency in the washing phase.

‘USK’ stands for Utility Saving Kit. This facilitates monitoring of the consumption of utilities (steam, water, energy) and bath depletion, allowing the optimisation of the dyeing and washing cycle in order to reduce consumptions and impact on the environment – with the additional benefit of significant cost savings. The kit also provides all the data necessary to calculate the exact cost of each dyeing cycle.

After machine disposal most of the components can be recycled.

www.flainox.com
European textile and clothing producers are being advised that they could save up to 30% of their energy costs, just by applying a ‘simple’ system of cost assessment. The advice came at a recent conference in Brussels, where industry experts said too many companies lacked fine-tuned energy data that would allow them to quantify the money they were losing. The meeting was sponsored by the SESEC project (Sustainable Saving for the European Clothing Industry) and Euratex as part of their Energy Made-to Measure campaign, which has developed a series of energy audits with small and medium-sized companies in mind.

Euratex director Francesco Marchi said the campaign already had the support of some 50 companies across the continent. “We have reached the point where energy efficiency is being recognised as a major energy resource in the EU,” he said. “But the name of the game is to create better tools based on the industries’ best practices.”

Improvements in energy efficiency mean better profit margins, he reminded the audience, adding that initiatives must be coordinated at both national and regional levels. His colleagues at SESEC have developed an Energy Savings Scheme (ESS) to help companies understand how to achieve these goals – free of charge. It is specifically aimed at clothing manufacturers and promotes the use of best practice for the whole sector through project partners in six countries – Portugal, Germany, Italy, Romania, Belgium and Bulgaria. The project plans to involve more than 150 companies in testing and using the ESS to improve their energy efficiency. This is against a background there energy supply may be inconsistent at peak times. Mauro Scalia, the Euratex project manager, said the Belgian electricity utility has already issued a warning that there may be outages of a few hours on some days in the coming winter.

“Overall there is still a wide gap between reality and consumption in the industry. We have to meet challenges on the outside such as fuel price rises while at the same time tackling greater efficiency which, of course, takes place within companies,” he said.

Bertram Rollman, CEO of PirinTex, a suit manufacturer in Bulgaria, said many companies lacked detailed monitoring of their energy costs and were vague about how much they were losing by not keeping a tighter grip. “Turn off the warehouse lights!” he urged, adding that such basic measures had saved his own company more than €230,000 last year. He said that, where possible, companies should insulate their steam pipes and, where possible, deploy residual heating. “And I’m going to soon make an investment in modern compressors because, although air is free, compressed air is not,” he added.

Helder Rosendo, vice-general manager of CITEVE, Portugal’s textile-innovation organisation, warned that customers are becoming more aware of environmental issues. “Larger companies are already well aware of increasing public sensitivities, but the question ‘how green are you?’ is also becoming more and more relevant for SMEs. They must be helped to understand this element in their operations.”

Details of the SESEC project can be found here: http://euratex.eu/hidden-pages/useful-tools/sesec/