Earlier this year, pioneering developments in the technical textiles industry were recognised at the Future Textiles Awards. We speak to some of the winners to see what further progress they have made.

As we reach the end of another year, Future Textiles is looking back on what made 2017 so memorable. And, for us, one of the main industry highlights was the Future Textiles Awards – a celebration of some of the best innovations the technical textiles sector has to offer.

Held during Techtextil, Frankfurt, in May, the Future Textiles Awards – the third edition to date – honoured winners in 16 categories, including Best Product – Clothing Textiles, Ground Breaking Partnership, Best Start-up Company, and Launch of the Year.

Inuheat Group was successful in the first two aforementioned categories, awarded for not only its flexible and conductive yarn for actively-heated clothing, but for its collaboration with various clothing brands on its Wearable Heating Platform. Since the awards, organised by Future Textiles’ publisher WTiN, Rickard Rosendahl, CEO of Inuheat, reveals what further developments the company has made.

He says: “We have hired three new textile engineers in our lab and expanded with new advanced equipment. Our new patented yarns are performing very well as heating elements in knitted socks. However, customers are now asking for thinner yarns, more comfort and other colours than black. We have an idea of how to meet these demands using new materials and completely new manufacturing methods. This will result in a second-generation, conductive textile that will work very well with most applications.”

Discussing the company’s plans for the future, he adds: “Inuheat Wearable Heating Platform is continually developing in all areas, including data, power and textiles. Today, we can build heat into almost any type of application – gloves, socks, undergarments and insoles etc. Our goal is to make this integration completely seamless in order to prevent interruption of functionality and design in the garment. We also strive to make the integration cost effective at the textile factory to make sure these heated products will be affordable for any user facing cold conditions, at work or during sport.”

Future Textiles also hears from Kerstin Knorr, marketing manager of Norafin Industries, which won the Industrial Textiles category for its sintered nonwovens.

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Norafin is working closely with partners that help us to better define the needs of the final customer. These partners have know-how in the sintering steps and the market access. Right now, we are in the final phase of testing our product for special filtration applications.”

And in the future? “Norafin wants to follow the market trends, but also set up innovative products or processes in each of the emerging or developing markets, such as e-mobility, composites and Industry 4.0, while keeping in mind the need to be sustainable and environmentally friendly. For this, our areas of focus are polymers, technologies, analysis capabilities, and ways to cleverly combine things together,” Knorr adds.

Success in the Industrial Textiles category was shared by Aleph srl, which was recognised for its LaForte textile printing range. “Since the Future Textiles Awards, we have taken the LaForte project forward by adding new features that make this machine state-of-the art in the digital textile industry,” says Andrea Negetti, international sales manager, Aleph. “Soon we are going to launch a new release with lots of improvements in the IoT side that will allow customers to keep the unit under control with simple devices connected to the network. Meanwhile, some other small improvements have been made by fine tuning the heads alignment, as well as in droplet control. This will allow customers to achieve an extreme high-quality print.”

Exploring innovative ideas
One of the main success stories of the Future Textiles Awards 2017 was Elizabeth Whelan Design, which scooped the coveted Launch of the Year prize for its Tegris-lite for Tumi luggage. The product merges ballistic nylon
with Tegris – a carbon-like polypropylene fibre manufactured by Milliken.

The company’s principal, Elizabeth Whelan, says that since the award win, she has developed two other patterns using the Tegris-lite yarn that she is interested in pursuing. “I am curious to create new, strong and super light fabrics that can have applications for consumers. It appears to me that this is an area that has not been explored,” she says.

As well as impressing the FT Awards judging panel with her product, Whelan has also garnered considerable interest from industry. “Because it is lightweight and uses both a familiar yarn (nylon) and a new yarn (Tegris), there has been interest particularly from the sporting goods industry. Tumi wanted a strong fabric that embraced an urban-industrial aesthetic. So, its design is uncoloured, but the designs colour up beautifully. The combination of a textile that uses new yarns, is both lightweight and strong, and is presented in beautiful colours, offers the possibility of a striking and unique fabric,” says Whelan.

Constantly innovating, Whelan reveals that she has now turned her attention to woven stretch fabrics for furniture. “These fabrics stretch vertically and horizontally, and I am exploring different materials to use with elastic yarns. Most woven stretch fabrics have very flat surfaces and are one colour. I am exploring pattern, materials, weave structure and colour. All of these textile elements have to work within a very specific set of weaving and finishing criteria. The fabric will be able to stretch over form, and be strong and beautiful,” she says, adding that the fabric is yet to be made for production.

A member of Advanced Functional Fabrics of America (AFFOA), a non-profit institute led by the Massachusetts Institute of Technology (MIT), Whelan recently attended a hackathon held there which created smart fabric solutions to aid emergency responders. “It was a fantastic experience because it was collaborative, focused and open to new ideas; there were no hierarchies. The participants were professionals from many areas: engineering, design, medicine, defence, and university students. We were there to come up with textile solutions to very serious issues, such as disaster relief, refugee displacement, and protection for those in combat. One goal is to meaningfully contribute to the invention and revolution occurring in fibres and textiles,” says Whelan.

She adds: “Textiles can do so much more than industry is generally willing to support. The same is true for textile designers; they can do so much more to improve products, if companies will recognise and invest in their work. Imagine what could be done to help people by enhancing the quality of life or saving lives.”

The next edition of the Future Textiles Awards will be held during Innovate Textile & Apparel (Europe 2018) in Amsterdam. More information will be available soon.

Aleph srl and Norafin Industries were both successful in the Industrial Textiles category

Designer Elizabeth Whelan

Elizabeth Whelan’s Tegris Lite for Tumi luggage scooped the Launch of the Year Award

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