After many successful years at Munich's MTC exhibition centre, Performance Days took a step into the unknown in November with its move to Messe München, the exhibition's new home.

Performance Days makes itself at home at Messe München

by Jo Tait

When the organisers of Performance Days announced in November 2017 that the exhibition would be leaving the MTC exhibition centre in Munich, it described the move as "a logical and necessary step". Fast forward 12 months and the show opened its doors at the Messe München site for the first time.

The show has come a long way since its launch in May 2008 as a multi-city event that originally took in Stockholm and Verona as well as the Bavarian capital. Its growth in popularity since then is evident. From 50 exhibitors a decade ago, November 2018 welcomed more than 280 exhibitors, who made full use of the increased space available in hall C1 of Messe München.

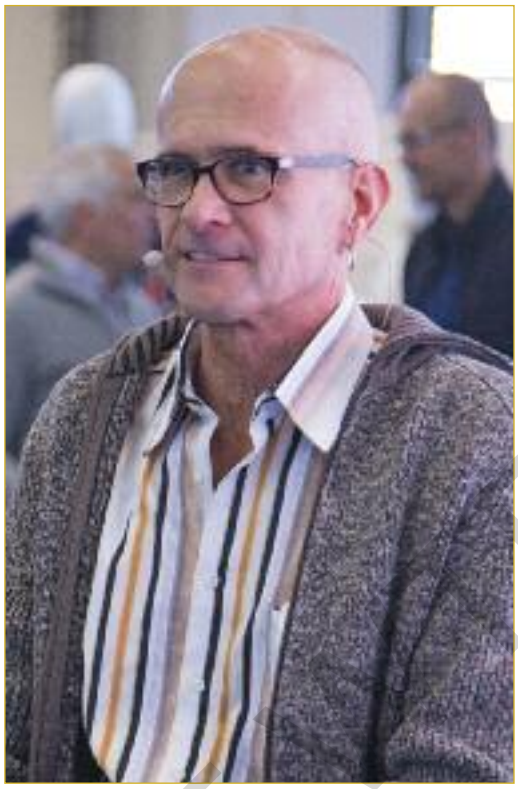
The opportunity to expand the space available for exhibitors was a key reason for the change of venue. It allowed around 100 companies to exhibit at Performance Days for the first time, according to the organisers. With this expansion came the risk of losing the relaxed and friendly atmosphere for which the exhibition is known.



November's Performance Days covered more than 5000 sqm of hall C1 of the Messe München site.

Performance Days





(Left) The Performance Forum Wall, displaying a range of innovative materials, was installed at the new venue.

(Right) Marine biologist Christian Lott talked extensively about the issue of plastic pollution of the oceans.

Performance Days

Feedback *WSA* received from exhibitors and visitors was that this was not the case, with a number commenting that the special atmosphere has been preserved despite the new location and the increase in size.

Shortly after the conclusion of November's show, the organisers revealed that more than 3,200 visitors from 63 countries had attended, around 50% more than the previous November's edition at the old venue. They said the higher visitor numbers had proved the move was "the right decision at the right time", adding that the total attendance had exceeded their expectations.

Focus on water

In recognition of the textile industry's "significant contribution" to the creation of wastewater and water pollution, the focus topic for November's Performance Days was 'Water – Our Responsibility'. As well as having its own dedicated space in the hall, at which were displayed 24 materials that in some way require less water or help tackle ocean waste, the topic was the subject of a number of interesting presentations and expert discussion groups on the second day of the fair. The issue was addressed from two angles: how water usage in the textile industry can be reduced, and the increasingly urgent need for solutions to the problem of microplastic pollution.

The opening presentation, perhaps the most interesting of the day, was delivered by marine biologist Christian Lott, director of marine research and training institute Hydra Marine Sciences in Germany. Although an outsider to the textile industry, he explained that his work has become increasingly linked to the problem of plastic pollution of the oceans. In his words, this has forced him to become a "plastic biologist" as much as a marine biologist. He offered an overview of the research that Hydra has carried out from its field station on the Italian island of Elba into the extent of the problem.

His talk contained a number of startling facts. These include that scientists have found plastic waste in all corners of the globe, including the Arctic, the Antarctic and the Mariana Trench, the deepest natural point in the ocean. In addition, he explained that around 99% of the nearly 90 million tonnes of plastic produced since the 1950s is unaccounted for, meaning plastic pollution is likely to be even worse than is currently realised. Mr Lott also referenced a recent study from the University of Barcelona which found that the predominant microfibres to be found on the ocean floor were cellulosic fibres. This has led to concerns that dyeing and other treatments might alter the inherent biodegradability of natural fibres.

He used a portion of his talk to question the effectiveness of ocean clean-up efforts. His justification for doing this was that only 1% of plastic pollution that makes it into the ocean remains on the surface. An estimated 5% stays on coastlines and beaches, meaning 94% finds its way deeper into the planet's waterways. As a result, ocean clean-up groups, which have tended to focus on collecting plastic debris from the surface, make huge efforts for what in reality is a very minor impact on the overall problem. He did stress, however, that he appreciates the

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work these organisations do to raise public awareness.

Mr Lott returned to the stage later in the day to take part in a panel discussion about ocean waste moderated by Sophie Bramel, technical editor of *WSA* magazine. They were joined by Niccy Kol, brand development manager of circular solutions provider Waste2Wear. Somewhat unexpectedly, Mr Lott described plastic as "a great material". He qualified this by saying that this is only the case if it is used in a responsible manner. While durability is one of plastic's best qualities when it is in use, this becomes an extremely negative property once it comes into contact with the environment at the end of its usable life.

Ms Kol used her interventions to highlight work Waste2Wear has done to look at where ocean waste actually comes from. In this way, the organisation can help manufacturers better understand the part they play in creating this problem. Responding to comments from the audience, the speakers agreed that educating the next generation about plastic pollution is important, but Mr Lott was passionate when insisting that it cannot be left for them to deal with. He said everyone needs to rethink how they interact with plastics to prevent this issue from becoming even more serious.

Microfibre pollution solutions

Sophie Mather, a material futurist at UK-based sustainable innovation company biov8tion, discussed how textiles can be re-engineered to avoid the release of microfibres. She held up transforming product development as a proactive solution to the problem of microplastic pollution. She also detailed how the 'goalposts' have shifted in the past two years with regards to this issue, offering a number of examples. She pointed to an increased urgency to act and the fact that the textile industry now talks about microfibres in relation to all fabrics, rather than just fleece products. Echoing Mr Lott's warning about cellulosic fibres, she added that natural fibres as well as synthetic fibres are now part of the debate. This has forced the industry to look beyond the composition of a material and at how the materials and garments we use are made. Her conclusion was that the more information known about the different stages of the textile/garment production process, the more chance there is to make real changes.

Representatives of Polartec and PrimaLoft, two companies that presented their ideas for combatting microplastic pollution at Performance Days, featured on a panel moderated by textile expert Ulrike Arlt. PrimaLoft president and chief executive Michael Joyce talked about the company's new biodegradable polyester fibre, PrimaLoft Bio. More information about this innovation can be found in the Newcomers section of this issue of *WSA*.

Polartec has approached the problem from a different angle, creating Power Air, a new fabric engineered to reduce microfibre shedding. This is achieved by encapsulating lofted fibres within a multilayer, continuous yarn fabric construction during the knitting process. This is also said to result in better thermal efficiency. At Performance Days, Polartec CEO Gary Smith explained that the company developed a whole new testing protocol to measure shedding due to home laundering while working on Power Air. This involved simulating dozens of launderings in a single cycle in order to accurately capture data about the microfibres lost over the fabric's lifetime. The test can accurately



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The Performance Award jury selected 24 materials for inclusion in a special display area dedicated to the focus topic.

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determine the percentage of weight loss due to shedding. Polartec has called Power Air a "foundational technology platform" that it believes will eventually help reduce shedding in all existing categories, including insulation, lightweight next-to-skin materials and extreme weather protection fabrics.

Exploring water usage

When later in the day attention turned to the issue of high water usage in textile manufacturing, a number of speakers offered their thoughts. Christina Jönsson, from the Research Institute of Sweden, talked about textile manufacturing's contribution to the problem of scarcity of water. As well as pointing out that water is rarely recycled in the industry, she also highlighted the clear links between water usage and energy consumption. This is primarily down to water often being used at high temperatures, which means energy is needed to heat it up. She emphasised the importance of accurate measurements in relation to water usage, posing the question: how can we reduce the amount of water we use if we don't know how much we are using at each stage of production?

An afternoon panel led by Anna Rodeweld of GreenroomVoice, an organisation that specialises in communication of sustainability practices, explored how changes to the dyeing process could contribute to reducing the amount of water the textile industry uses. With textiles still mostly dyed via processes that use water, the challenge is to find a better way to do it. Among the solutions mentioned were dope-dyeing technologies, such as those developed by e.dye, which was represented on the panel by European sales director Mats Andersson. There was also in-depth discussion about the recyclability of water and how more of this important resource can be returned to the supply chain after use. To make this possible, there will need to be more research into biodegradable chemicals, the members of the panel concluded. They agreed that cross-supply chain collaboration and partnership is key to reducing water usage. This includes leaning on the knowledge of researchers and scientific institutions.

A fascinating day of discussion came to a close with a high-level panel focusing on how water consumption can be reduced by creating fabrics and garments that need to be washed less frequently. The guests, which included Mats Georgson (CMO of Polygiene), Carlo Centonze (co-founder and CEO of HeiQ) and Genady Fedotov (general manager of HDWool), compared different anti-odour solutions and examined the well-known natural antibacterial properties of wool.

Mr Fedotov said the main problem was convincing consumers that they do not necessarily have to wash a garment after every wear. For his part, Mr Georgson said the onus is on technology developers like Polygiene and HeiQ to prove their solutions work so that the consumer realises they can wear things multiple times between washes. The panel also mentioned that as well as reducing water consumption, fewer washes means less risk of microfibres being released into wastewater and so into the environment.

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Jou Fish, represented here by co-founder Ryan Chen, was named the winner of the Eco Performance Award.

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A reward for responsibility

More than 1,500 products were entered for the Performance Award at November's Performance Days. An expert jury spent two days assessing their merits before selecting 240 pieces for inclusion at the fair's regular Performance Forum, in addition to the 24 materials related to the focus topic that were mentioned earlier in this article.

The winner of the overall Performance Award was Japanese company Green Threads. It was recognised for a lightweight functional fabric that is said to offer the same performance qualities as a much heavier material. The company has said it weighs only 17 grammes per square metre but has the same tear resistance as a fabric weighing 50 grammes, for example. In addition, it is made with a four-denier yarn. Less material is required, reducing the amount of energy that needs to be used and resulting in less waste.

The jury decided to also hand out a second prize this year, the Eco Performance Award, which went to Taiwan-based Jou Jou Fish. This company has developed an extremely sustainable laminate, which the judging panel deemed the best ecological solution currently available on the market. The fabric is made from 100% recycled nylon and is solution-dyed, which saves water. The microporous membrane is made without the use of solvents, while the DWR coating is applied using an innovative dry process.

It was apt that the Eco Performance Award recognised a product that was created around the key aim of saving water. The fact that a large number of exhibitors presented fabrics and technologies that had either reducing water usage or combating microfibre pollution as their main motivations demonstrated that it was the right time for Performance Days to turn its focus towards the hugely important issue of water.

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