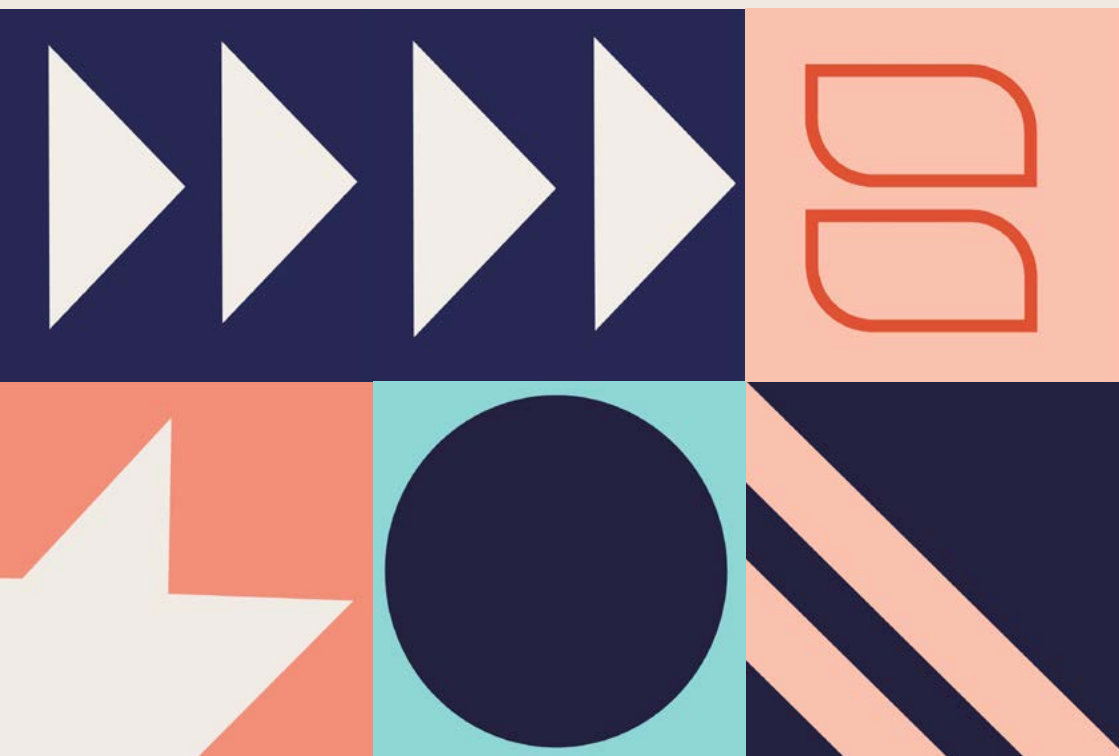




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2026 edition: UKFT members





The transition to a more sustainable and circular textile industry depends on progress across the full value chain. As fashion and textile businesses respond to increasing environmental, regulatory and commercial pressures, new materials, processes and technologies are creating practical opportunities to rethink how textiles are designed, made, used and recovered.

Our innovation members are developing solutions across materials, fibres, colour, finishing, manufacturing, sorting and recycling. From bio-based fibres and alternatives to synthetic dyes and PFAS treatments, to textile-to-textile recycling, advanced material identification and AI-enabled manufacturing, these innovators are addressing some of the industry's most complex challenges.

Collectively, their technologies demonstrate how innovation can help reduce reliance on virgin and fossil-derived resources, minimise chemical use and waste, improve material efficiency and enable more effective routes for reuse and recycling. They also highlight the growing role of biotechnology, materials science, artificial intelligence and advanced manufacturing in supporting the next generation of textile production.

This brochure introduces a group of emerging and established UK-based companies working to turn these developments into scalable solutions for industry. It aims to help UK fashion and textile businesses explore new technologies, understand their potential applications and connect directly with the innovators developing them.

UKFT can help members identify the right partners and technologies for their requirements. Please contact **info@ukft.org** for guidance and introductions.

Amphico

AMPHICO is a deep-tech materials technology company transforming how performance textiles are made. Based in London and Tokyo, it is on a mission to eliminate toxic chemistries from two critical stages of the supply chain: performance protection and colour, through breakthrough materials science, textile engineering, and artificial intelligence.

WHAT THEY DO

AMPHICO develops breakthrough technologies that enable brands to create high-performance products without relying on harmful chemistries. Its flagship innovations include Amphitex™, a PFAS-free waterproof, breathable membrane system, and Amphicolor™, a machine learning-powered colour technology that predicts and engineers woven colours using solution-dyed yarns, enabling thousands of colours to be created without conventional wet dyeing. By combining advanced materials science, textile engineering, and artificial intelligence, AMPHICO enables manufacturers to create high-performance textiles with lower environmental impact, reducing harmful chemical use, resource consumption, and production waste without compromising performance or design.

VALUE & IMPACT

AMPHICO believes that innovation should improve both product performance and environmental outcomes. The company is driven by scientific excellence, collaboration, and a commitment to eliminating harmful chemistries from the textile industry. Its technologies reduce reliance on resource-intensive manufacturing processes while enabling brands to achieve ambitious sustainability goals without compromising quality or creativity. By working across the textile value chain, AMPHICO is helping accelerate the transition towards a cleaner, more responsible future for performance materials.



Arda Biomaterials

Arda is an innovative chemistry company that transforms spent grain from beer and whisky production into high-performance, plastic- and rubber-free materials that offer circularity and design versatility to companies across fashion, footwear, automotive, beauty and beyond.

WHAT THEY DO

Arda transforms one of the world's most abundant by-products — spent grain from beer and whisky production — into high performance, plastic-free materials that don't cost the Earth.

Through proprietary nontoxic chemistry, Arda Biomaterials gives new life to a byproduct by reshaping the plant proteins found in spent grain into strong, supple and durable textiles, all without animals, plastics or rubber.

The vision is to enable companies and designers to create without compromise, offering materials that captivate customers and moving us toward a future where human and planetary health aren't trade-offs.

VALUE & IMPACT

It takes nature as its structural reference system, engineering performance from the molecular level up with nontoxic chemistry rather than plastic or petrochemical shortcuts. Spent grain is the unfair advantage: an abundant byproduct, available wherever beer and whisky are made, that lets the company build resilient local supply chains. And it designs for real life, creating materials that meet the workability, aesthetic range and volumes that real products demand.



Danu Water

Danu Water is a UK-based company delivering technology to treat industrial wastewater and make it ready for reuse onsite. Danu's technology removes salt and conductivity loads that conventional treatment can't touch — cutting discharge, easing water stress, and enabling closed-loop reuse across water-intensive industries.

WHAT THEY DO

Danu treats industrial wastewater so factories can reuse it onsite, instead of drawing more from the tap or the river. Danu helps dyehouses, tanneries, and laundrettes recover and recycle their process water, cutting freshwater demand by up to 95%. That matters because manufacturing is competing for an increasingly scarce resource — the same water needed for drinking supplies, fire hydrants, and farming. By making water circular rather than disposable, it helps fashion and textile businesses keep operating through drought and scarcity, protecting the jobs, skills, and local economies that depend on manufacturing staying open.

VALUE & IMPACT

It believes that manufacturing shouldn't have to choose between staying open and using water responsibly. Every litre a factory reuses is a litre left for drinking water, firefighting, and farming — and a job protected in a community that depends on that factory running. It measures its success in litres saved, not just contracts signed. Water security is national security, and is building the technology that lets British industry meet that challenge without shutting its doors.

DyeRecycle

DyeRecycle is an Imperial College London spin-out that removes dyes, strips finishing chemicals and separates polyester from cotton in coloured, blended textile waste. Its closed-loop green solvent technology turns waste that recyclers cannot currently use into clean, spin-ready recycled polyester, unlocking textile-to-textile recycling at scale.

WHAT THEY DO

DyeRecycle provides the missing pre-processing layer that makes textile-to-textile recycling work on real waste. Almost all post-consumer textiles are dyed, blended and chemically finished, which existing recyclers cannot process at quality or scale. The patent-pending, closed-loop green solvent process selectively strips dyes, removes finishing chemicals and separates polyester from cotton, producing clean, spin-ready polyester alongside recovered dye and microcrystalline cellulose. It bolts on to existing chemical and thermomechanical recycling plants at low cost. DyeRecycle operate an asset-light licensing model, partnering with recyclers and engineering and equipment providers to deploy the technology globally.

VALUE & IMPACT

It recycles the unrecyclable. The purpose is to keep the world's polyester in a closed loop rather than making new plastic from oil or sending textiles to landfill and incineration. Independent lifecycle studies by Imperial College London and Quantis show around 80% reductions in carbon and energy for the fibre-to-fibre route the process enables, alongside major water savings. It also recovers the natural cotton fraction as a bio-based material, so blended garments are no longer a dead end.

Epoch Biodesign

Epoch Biodesign is a biotechnology company redefining circular materials, having raised over \$50 million USD. Starting with nylon 6,6, Epoch pioneers enzymatic processes that break down textile and polymer waste into virgin-quality chemical building blocks, partnering with manufacturers and brands to transform waste into recycled polymers for high-performance applications.

WHAT THEY DO

Epoch develops enzymes that break down hard-to-recycle textile and polymer waste, starting with nylon 6,6, into high-purity chemical building blocks to remake into new, virgin-quality materials. Epoch's approach closes the loop on post-industrial and post-consumer waste, so nylon waste becomes new nylon products over and over again. The company brings together biologists, chemists, process engineers and manufacturing expertise to design and scale biorecycling into fully-integrated production, working directly with manufacturers and brands across the textile supply chain.

VALUE & IMPACT

Scaling commercially viable solutions to plastic and textile waste.





Fab Materials

Fab Materials is a UK materials technology company converting difficult-to-recycle mixed textile waste into fibre for MDF manufacture. Its technology enables manufacturers to replace a substantial proportion of virgin wood fibre using existing production assets, creating a scalable, lower-cost circular outlet for post-consumer textiles.

WHAT THEY DO

Fab Materials processes low-grade mixed textiles - including blended and post-consumer material that is unsuitable for reuse or conventional fibre-to-fibre recycling - into a consistent engineered fibre. The fibre can replace part of the refined wood fibre used in MDF and HDF, while remaining compatible with established board-making processes. Fab has produced and tested pilot boards containing 30% textile-derived fibre and is progressing towards volume manufacturing trials with industry partners. The showcased table demonstrates the material in a finished, painted application.

VALUE & IMPACT

Fab Materials is focused on practical circularity at industrial scale. It aims to keep difficult textile waste in productive use, reduce reliance on virgin timber and help existing MDF factories manufacture lower-impact products without replacing major production assets. Its approach prioritises measurable performance, affordability and compatibility with established supply chains, so environmental benefits can be adopted at meaningful volume rather than remaining limited to niche applications. It works collaboratively with recyclers, manufacturers and end users to accelerate commercial adoption.

Fibe

Fibe is a London-based material science startup developing a new generation of resilient, affordable and sustainable textile fibres out of the world's most abundant agricultural waste streams (from potato stems to oilseed straws).

WHAT THEY DO

Fibe is developing technology to transform agricultural residues into natural fibres suitable for a wide range of applications, including apparel, nonwoven materials and upholstery. Starting with oilseed crop residues, Fibe produces a linen- and cotton-like fibre without relying on dedicated textile crops, polyester or wood-based fibres.

Instead, it turns underused farm by-products into scalable, lower-impact materials for the fashion and textiles industry. Its process works with existing agricultural systems, creating new value for farmers while reducing waste and pressure on land, water and forests.

VALUE & IMPACT

Fibe is on a mission to enable the mass adoption of natural fibres that protect the environment. It believes truly impactful solutions must be as scalable as they are sustainable, as such, any solution cannot compromise on cost, quality or scalability. This has led the company to re-engineer fibre extraction from the ground up. The result is a versatile fibre that uses orders of magnitude less water, requires no additional land for cultivation, can be carbon negative, and supports farmers to grow vital food crops.



Gooddrop

Gooddrop is a British textile innovation company developing a new way to grow and process premium cotton close to demand. By combining controlled-environment agriculture, plant science, automation and on-site spinning, Gooddrop aims to create high-quality, traceable cotton yarn with a radically shortened supply chain.

WHAT THEY DO

Gooddrop is developing an integrated system to grow premium cotton hydroponically in total-controlled indoor environments, supported by plant science, automation and data-led crop management. Cotton will be harvested, ginned and spun into yarn at the same facility, replacing a fragmented international journey with a shorter, transparent supply chain. Its research has already contributed to the first garment made from cotton grown in the UK using vertical farming. Gooddrop is now advancing technical validation and commercial partnerships with universities, engineering specialists, textile technology providers and fashion brands to prepare the model for scale.

VALUE & IMPACT

Gooddrop believes cotton can remain one of the world's most valued natural fibres without perpetuating opaque, resource-intensive supply chains. Its values are evidence, collaboration, traceability and responsible innovation. It is designing for measurable reductions in water use, transport, waste and pressure on agricultural land, while enabling consistent quality and transparent production data. Its long-term ambition is to support regional manufacturing, resilient supply chains and the restoration of land currently used for conventional cotton production.

LaundRe

LaundRe is the UK's circular denim finishing hub. It uses laser, ozone and nebulising wash technology to refinish slow-moving jeans stock and reshore production in small, limited quantities for brands, cutting waste, carbon and lead times while training the next generation in the Denim School.

WHAT THEY DO

Brands send the company unsold or slow-moving stock, and it transforms the jeans into a new finish; a write off becomes new fashion... fast and lost revenue is recovered.

LaundRe has built the next generation urban laundry: low emissions, sustainable finishing technology, designed to be agile and deliver problem solving solutions onshore. It produces small volumes so brands don't need to overbuy, can respond to trends as they happen and repeat in days not months.

Its denim school teaches brands how it manufactures jeans from end to end and students get real immersive hands on training in LaundRe.

VALUE & IMPACT

LaundRe is built to plug into the wider supply chain; a local global solution. Agility on shore matters when the supply chain and climate are changing. Its wash technology replaces pumice, potassium permanganate and traditional processing laundries use reducing environmental impact.

Stock that would have been discounted or landfilled becomes new responsible fast fashion. Every pair finished is a pair not shipped around the world twice.

Brands cut waste, carbon and de-risk their supply chain. Its SDG is 12: responsible consumption and production.





Matoha Instrumentation

Matoha develops AI and NIR sensing technologies that support affordable, scalable textile waste sorting, grading, and fibre identification, for re-use and recycling.

WHAT THEY DO

Matoha provides technology solutions that help businesses improve textile identification and sorting processes across reuse, resale, quality control, and recycling applications. The company has deployed more than 900 material identification and sorting solutions across 60 countries. Its latest handheld FabriTell textile scanner enables rapid fibre identification without the need for laboratory testing or large-scale sorting infrastructure. Matoha has also introduced the S-Bench AI sorting station, designed to improve garment grading consistency and efficiency through automated image capture and material sensing.

VALUE & IMPACT

Matoha's technologies are helping organisations improve the speed, consistency, and traceability of textile sorting and grading while reducing reliance on costly laboratory testing and manual assessment processes. Its solutions are designed to support circular textile systems at operational scale.

Papillon Bleu

From farm to fibre, Papillon focus on regenerative agriculture in textiles to restore soils, uplift the livelihoods of rural communities, and deliver high-quality textiles for modern brands. Its fully traceable approach removes harmful chemicals, supports farmer-led value chains, providing climate-positive yarns and fabrics, with data driven impact metrics and DPP's.

WHAT THEY DO

FULLY TRACEABLE FROM NON GMO SEED

Papillon's Rainfed Regenerative Cotton program is in partnership with Raddis System and GVK Society. Working directly with smallholder farmers in Andhra Pradesh, Southern India, Papillon Bleu cultivates regenerative cotton, in a food and fibre farming program.

Every harvest replenishes the soil, revives biodiversity; strengthening the communities who cultivate it, currently sustaining 592 tribal family members.

It's latest innovation Morpho™ Blends UK Hemp + post-consumer cashmere + Merino/British wool. From its experimental hemp farm in Leicestershire to the wool mills of Yorkshire, Morpho™ completes its entire journey in England within a 91 mile radius. The result is traceable, lowimpact yarns and textile that supports local jobs, reduces emissions, captures carbon whilst repurposing waste, promoting circularity in textiles.

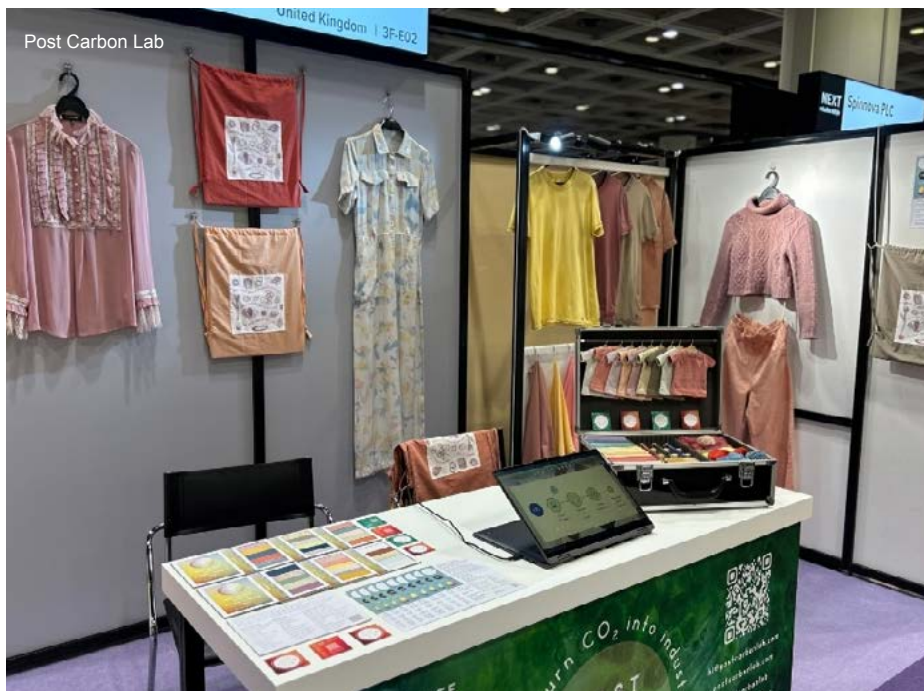
VALUE & IMPACT

GROW MATERIALS WITH PURPOSE

Papillon believe in creating textiles that honour the earth and uplift the people behind them. Regenerating land globally, using textiles as a force for good to create thriving ecosystems that respect and restore nature.

By building transparent and localised textile value chains, it is crafting a world where every thread benefits the land, enriches lives, and brings harmony back to nature.

Farmer led, its mission is to establish traceability as a non-negotiable, enabling data capture to measure impact for Community Income Uplift, Carbon sequestered, Chemicals/Pesticides and fertilizers removed and Water saved; whilst promoting new circular business models



Post Carbon Lab

Post Carbon Lab is redefining colours for textiles and polymers by transforming CO₂ into high-performance, petrochemical-free dyes, pigments, coatings, and finishes. The proprietary photosynthetic microbial technology delivers both aesthetic and functional value while actively upcycling carbon dioxide, saving energy, water, chemical use and time for the industry.

WHAT THEY DO

Post Carbon Lab is redefining colours for the textile and polymer industry by upcycling atmospheric CO₂ into high-performance, petrochemical-free colours, prints, and finishes with photosynthetic microbes.

It has partnered with leading brands and global manufacturers to integrate bio-based colours, prints, and properties into their products while saving water, energy consumption and time. Designed for industrial compatibility, its technology fit seamlessly into large-scale wet-processing workflows.

Supported by Innovate UK and The Worshipful Company of Dyers, its microbial formulations deliver strong colourfastness alongside biodegradability, circularity, and scalability — balancing impact, cost, performance and aesthetics with the planet at the core.

VALUE & IMPACT

Post Carbon Lab is founded to transform industry from extractive to regenerative by harnessing biology to create climate-positive solutions.

Guided by scientific rigour, systems thinking and open collaboration, the company develops scalable microbial colour and finishing technologies that reduce environmental impact while fitting existing manufacturing infrastructure. Its mission extends beyond decarbonisation to restoring ecosystems, empowering industry-wide change and proving that innovation can create measurable environmental, social and economic value.

So far, Post Carbon Lab's work has successfully offset 1.4 million tonnes of CO₂ and saved 4,000 litres of water by supporting the defossilisation and decarbonisation of the industry. It is on its pathway to further remove 14 million tonnes of CO₂ in the next five years.

Sages

Sages is a start up pioneering phytochemical extractions and biochemical dyeing processes for sustainable colouration. Its breakthrough bio-chemical processes eliminate the need for synthetic dyes entirely.

WHAT THEY DO

Sages create bio-based dyes extracted from food-waste.

Through its patented process, it produces non-toxic, non-polluting, bio-based dyes in a wide range of colours. These are a drop in solution and can be used across commercial dyeing processes.

VALUE & IMPACT

Sage's dyes offer a sustainable, scalable alternative to synthetic dyes; eliminating petrochemical reliance, ecosystem pollution, and worker safety risks. Designed for large-scale manufacture, they're built for widespread adoption.

The mission is to replace synthetic dyes with scalable, sustainable, high-performance biochemical colourants. Creating the world's most sustainable, circular, and regulatory-aligned dye system for textiles and other industrial applications.



SEFF

SEFF is a UK-based technology platform unlocking the hemp fibre supply chain for the global textiles industry. Through its patented processing technology and Global Partner Network, SEFF is expanding hemp cultivation and usage to decarbonise textile supply chains, restore farm soil health and deliver natural performance worldwide.

WHAT THEY DO

SEFF's patented Nano-Pulse technology applies precision high-voltage electricity to hemp bast, producing premium fibre that spins easily on standard textile machinery. This removes a key barrier to hemp adoption: the need for specialist processing or changes to established production systems. The resulting fibres and fabrics are made for natural performance, combining a soft touch and luxury aesthetic with all-day climate comfort that responds to changing conditions. By connecting cultivation, fibre processing and existing manufacturing infrastructure, SEFF provides a practical, scalable pathway for hemp into mainstream global textiles.

VALUE & IMPACT

SEFF is establishing hemp as a mainstream material for global textiles. In 2026, SEFF is further increasing its commercial processing capacity in Europe, with additional capacity coming online in South Asia by the end of 2027. This growth will give manufacturers dependable access to premium hemp fibre while expanding cultivation and economic opportunity for farming communities. By accelerating hemp adoption, SEFF is reducing reliance on resource-intensive fibres, decarbonizing textile supply chains and supporting healthier soils worldwide.

Solena Materials

Solena Materials is an advanced textile innovation company developing AI-designed, protein-based fibres for luxury and high-performance textiles. Founded in 2022 as an Imperial College London spinout by Dr James MacDonald Solena is pioneering sustainable high-performance materials, backed by £8M in private funding and £1M+ in public grants.

WHAT THEY DO

For fashion and performance brands as well as for textile manufacturers who are looking for sustainable and performing alternatives to synthetics and natural fibres, Solena Materials delivers next gen protein fibres that are custom-designed for performance, produced without toxic chemicals, and engineered to integrate directly into existing textile manufacturing systems. Unlike petroleum-derived synthetics that lock the industry into carbon-intensive supply chains and microplastic pollution, or natural fibres constrained by land use, variability, and limited performance tuning, Solena uses proprietary AI-designed proteins and scalable bio-manufacturing to create fibres with tailored strength, elasticity, softness, fineness, and durability, all while remaining bio-based and biodegradable.

VALUE & IMPACT

Solena's fibres are engineered to be lower-carbon, plastic-free, and biodegradable, reducing reliance on resource-intensive traditional natural fibre production and the microplastic pollution associated with synthetics. With the potential for localised production near demand centres, Solena helps apparel companies build more responsible, resilient, and traceable supply chains — replacing extractive, resource-intensive processes with a scalable, molecularly precise approach to material design.

Tera Mira

Tera Mira turns seaweed into stretch fibres to design plastic and waste out of fashion. The London-based material startup is developing a fully bio-based stretch fibre, designed to drop in within existing spinning machinery, meet minimum stretch performance, and unlock a better end-of-life. Tera Mira is currently at prototyping stage, preparing for pilot production within fabric-manufacturing machinery.

WHAT THEY DO

UK landfills receive 350,000 tonnes of clothing waste each year, worth over £140 million in lost material value (WRAP, 2015) and without intervention, WRAP (2025) forecasts this could cost UK councils up to £200 million annually by 2035. A major reason garments can't be recycled is synthetic stretch: even a small percentage of elastane blocks the whole textile from being recycled. It's solving this by developing stretch fibre from seaweed instead of petrochemicals, designed to drop into existing spinning machines, meet minimum stretch performance, and unlock a better end-of-life. Tera Mira is currently prototyping, working toward pilot production.

VALUE & IMPACT

Tera Mira's focus every day is on:

- Ending dependency on petrochemicals, proving that performance can be built with biology while respecting natural cycles and involving communities working with these feedstocks.
- Designing out waste, taking responsibility for the materials it puts into products and thinking intentionally about their end of life.
- and ultimately, creating clothes that feel good on our bodies: comfortable, safe, and make us want to keep and care for them.



WEFFAN

Weffan is advancing how clothes are made by helping brands make clothes with less waste and greater design possibility. Founded on the insight that waste is a design flaw, they pioneered a form of 3D Weaving that merges garments into fabric creation to reduce waste, and Pattnr, software applying design-stage waste reduction logic to everyday manufacturing.

WHAT THEY DO

Weffan believes better decisions start with better tools, and the greatest impact comes from intervening at the design stage, while decisions are still being made. Which is why they are redesigning how clothes are made and building the tools to enable it.

3D Weaving merges a garment's shape into the fabric itself, using existing industrial looms to weave structure in rather than cutting it from standard cloth. It introduces a new design language of seamless constructions and variable fabric densities.

Pattnr is intelligent software that treats pattern shape as a variable to optimise, running in two modes. In cut-and-sew mode, it suggests tweaks that increase fabric yield. In 3D Weaving mode, the same engine merges textile and garment manufacturing to achieve even higher fabric efficiency.

VALUE & IMPACT

Intervening at the design stage, where the opportunity to reduce waste is greatest, Weffan designs waste out before it's ever locked in.

- Commercialised the world's first 3D woven jacket and trouser with Balenciaga's SS26 collection: up to 42% less fabric, up to 51% less waste.
- Pattnr cuts off-cut waste by up to 40% in cut-and-sew mode, and up to 83% in 3D Weaving mode.
- Weffan lets brands start now with Pattnr, and grow toward the deeper reduction 3D Weaving offers.

ZERØTEC

ZERØTEC is a pattern design and nesting software (CAD/CAM) tool that helps fashion designers reduce fabric waste in manufacturing, making fashion more environmentally sustainable and profitable.

WHAT THEY DO

60bn Meters of fabric are wasted in factories around the world before the clothes even reach the shelves; that's enough fabric to cover AUSTRIA every year- a \$300B opportunity. ZERØTEC is using AI in an industry-first to reduce material usage by 15%, equal to £1.70 and 2Kgs of carbon per garment made.

VALUE & IMPACT

ZERØTEC is a mission to solve one of fashion's most critical problems with patented AI solutions that deliver real material benefits. Its platform helps brands embrace sustainability, cut costs, and finally bring transparency to the true impact of our clothes. Since launching in early 2025, it quickly grew to 600 users, including luxury fashion group LVMH- and is now working with some of the world's largest brands; working to make fashion more sustainable and profitable.

Get in touch

UKFT can help members find the right partner for their requirements. Please contact **info@ukft.org** for guidance and introductions.

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