



Creating a Circular System to Accelerate Textile Recycling

New T-REX Project Launches to Drive Closed-Loop Sorting, and Recycling of Household Textile Waste Across the EU

27th October, 2022, Amsterdam – A consortium of 12 major players from across the entire recycling value chain, along with research institutes, has launched an innovative European Union (EU) funded project to create a circular system for post-consumer textile waste. The T-REX Project (Textile Recycling Excellence) will work to create a harmonised EU blueprint for closed-loop sorting, and recycling of household textile waste. Transforming end-of-use textiles, from waste, into a desired feedstock, and a commodity for new business models that can be adopted at scale.

The project aims to contribute to understanding and identifying the infrastructure, technology and policy needed to encourage the growth of circular value chains in the textile industry. The partners will work towards developing a systematic approach to addressing the problem of textile waste, resource preservation and reduction of the environmental footprint of the fashion industry.

Immense Opportunity to Accelerate Textile Recycling

It is currently estimated that only 2% of post-consumer textiles in Europe are diverted to fibre-to-fibre recycling*. Creating a circular system for post-consumer textile waste currently faces many challenges, including a lack of standards for collecting and sorting textile waste across countries, inaccurate composition claims, uneven quality of materials, and a lack of reliable data across value chain stakeholders.

The T-REX Project will increase knowledge on the systemic change required to scale fibre-to-fibre recycling, adding to previous studies that include the Fashion for Good and Circle Economy's recent 'Sorting for Circularity Europe' Report. The analysis, of which, indicates that 74% of low value, post-consumer textiles are readily available for fibre-to-fibre recycling in six European countries. This finding offers an immense opportunity to accelerate textile recycling, but still requires an integrated approach to deliver for scale.

A Consortium of Cross-Industry Leaders

Over a three-year period, the T-REX Project will collect and sort household textile waste and demonstrate the full recycling process of polyester, polyamide 6, and cellulosic materials from textile waste into new garments. Simultaneously, the Project aims to demonstrate sustainable and economically feasible business models for each actor along the value chain, conduct lifecycle analysis of the circular process, integrate digital tools that streamline the process of closed-loop textile recycling, and produce circular design guidelines.

Veolia, will lead the post-consumer textile waste collection, sorting, and diversion to work with the feedstock needs of the respective textile recycling technologies of **Infinited Fiber Company**, **BASF**, and **CuRe**.

The recycled fibres will be converted to yarn by European manufacturers **Linz Textil** and **TWD Fibres**, from which **adidas** will create demonstration products with end of life in mind.

FAU will support the project with analytical expertise to maximise the conversion of multi-fibre textile waste into recycled fibre, and **Aalto University** will conduct citizens' engagement activities to raise awareness of textile recycling practices and analyse social impact.

Fashion for Good will lead industry communications, and conduct business viability and digital integration activities, supported by **Quantis** and **Arapaha** who will collect and analyse data from across the value chain for sustainability assessments and digital solution recommendations.

The project ultimately aims to contribute to a paradigm shift through understanding and identifying the infrastructure, technology, and policy needed to encourage the growth of circular value chains. It will work towards developing a systemic approach to addressing the problem of textile waste, whilst also assessing how to empower citizens to actively engage and contribute towards building a holistic solution to one of fashion's biggest sustainability challenges.

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For press requests and more information on the T-REX Project please contact Fashion for Good at melanie.hughes@fashionforgood.com

Notes to Editor

*Fashion for Good and Circle Economy 'Sorting for Circularity Europe' October 2022.

The T-REX Project has received Funding by the Horizon Europe research and innovation programme.

Learn more about the project at www.trexproject.eu

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About Aalto University

Aalto University is a community of bold thinkers where science and art meet technology and business. They build a sustainable future by creating novel solutions to major global challenges. By merging three leading Finnish universities in 2010, Aalto was founded to work as a societally embedded research university.

Design research in Aalto University fosters goal-oriented research, imaginative experiments, critical discussion and cross-disciplinary enquiry. They work with businesses, scientists, technologists, sociologists, policymakers, public sector organisations and communities of interest towards a more just and sustainable world.

Learn more: <https://www.aalto.fi>

About adidas

adidas is a global leader in the sporting goods industry. Headquartered in Herzogenaurach, Germany, the company employs more than 61,000 people across the globe and generated sales of €21.2 billion in 2021.

adidas' sustainability mission is to help End Plastic Waste through innovations and partnerships that are focused on rethinking materials, redesigning processes, reducing carbon footprint and driving behavioural change. adidas has set big goals for the coming years: replacing virgin polyester with recycled polyester wherever possible by 2024, (by the end of 2021 already 91% of its polyester was recycled), 15% reduction of value chain GHG emissions per product by 2025, 30% value chain GHG emissions reduction by 2030 and climate neutrality (CO₂e) in the entire value chain by 2050. For more information visit: <https://www.adidas.com/sustainability>.

About Arapaha

Arapaha is a science-based start-up in Maastricht, the Netherlands. The company advocates the transition to a new circular era where things you live in and around your house are made and remade.

Arapaha combines design, science, and nature to create a planet-friendly closed loop where products are made, used, collected, and re-entered. All products are designed for minimum impact on the planet through the selection of bio-based materials and the assurance that every part can be disassembled and recycled back into its original components. Fossil-free, climate-friendly and closed-loop.

Learn more: www.arapaha.com

About BASF

BASF creates chemistry for a sustainable future by combining economic success with environmental protection and social responsibility. Around 111,000 employees contribute to the success of their customers in nearly all sectors and almost every country in the world. The BASF portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €78.6 billion in 2021. Learn more: www.basf.com.

About CuRe Technology

CuRe Technology is a consortium of world-leading recycling innovators and experts. Their ground-breaking CuRe Technology for polyester rejuvenation offers low energy recycling for used polyester in a fully circular chain. They

CuRe any type of used polyester by removing the colour and other additives and converting it into high-grade, ready-to-use 100% rPET which can replace PET from fossil-derived sources.

Learn more: <https://curetechnology.com/>

About Fashion for Good

Fashion for Good is the global platform for innovation.

At its core is the Global and Asia Innovation Programme that supports disruptive innovators on their journey to scale, providing hands-on project management, access to funding and expertise, and collaborations with brands and manufacturers to accelerate supply chain implementation.

To activate individuals and industry alike, Fashion for Good houses the world's first interactive museum dedicated to sustainable fashion and innovation to inform and empower people from across the world and creates open-source resources to action change.

Fashion for Good's programmes are supported by founding partner Laudes Foundation, co-founder William McDonough and corporate partners adidas, BESTSELLER, C&A, CHANEL, Inditex, Kering, Levi Strauss & Co., Otto Group, Patagonia, PVH Corp., Reformation, Stella McCartney, Target and Zalando, and affiliate and regional partners Arvind Limited, Birla Cellulose, Norrøna, Pangaia, Teijin Frontier, Vivobarefoot, Welspun and W. L. Gore & Associates.

Learn more: <https://fashionforgood.com>

About FAU

Friedrich-Alexander-University Erlangen-Nuremberg (FAU) is one of Europe's most innovative universities, combining history and tradition with innovation and technology. As one of Germany's oldest and most distinguished universities, FAU plays a pioneering role in developing the technologies of tomorrow. Their partnerships with leading global companies including Siemens, Audi and Adidas and with renowned international research organisations such as Max Planck, Helmholtz and Fraunhofer institutes offer ideal conditions to grow and excel in the heart of Europe.

The Institute of Polymer Technology is a research institution tied to the Faculty of Engineering at FAU. The Institute of Polymer Technology participates in scientific alliances and standardisation committees. It takes part in and helps to organise training seminars and conferences. Moreover, the Institute acquires and conducts research projects—often together with partners from universities and industry. As a provider of education, research and service for industrial customers, the Institute feels obliged to consider material, design and processing of polymers not as isolated issues, but as an integral whole. It offers modern processing and testing laboratories with the newest equipment for polymer analysis and vast experience in the field of polymer processing and analysis.

Learn more: <https://www.fau.eu/>

Infinited Fiber Company

Infinited Fiber Company is a fashion and textile technology powerhouse on a mission to bring joy and hope back to closets by making circularity an everyday reality. Their breakthrough innovation transforms trashed textiles into Infinna™, a brand-new premium textile fibre that looks and feels like cotton and is just as versatile. Infinna™ is biodegradable, recyclable, and contains no microplastics. Infinited Fiber Company's technology is flexible and ready to be licensed. While they focus on creating value out of discarded cotton textiles, their technology can also use other cellulose-rich materials – cardboard, paper, wheat straw – to create the same fantastic fibre. They are also honoured and humbled by the industry recognitions they have won, including Wired's Europe's Hottest

Startups 2021, 2021 Global Cleantech 100 Company, Sitra's Finland's most interesting circular economy companies 2021, and The Europas Awards 2020 Europe's Hottest Sustainability Tech Startup.

Learn more: <https://infinitefiber.com>

About Linz Textil

Linz Textil is Europe's leading provider of yarn, greige fabric and terry towels with a tradition of almost 200 years. They operate at five production sites, employing 530 employees that are generating an annual sales volume of more than 100 million euros. With innovation and open collaboration at the core, Linz Textil strongly believes in a sustainable European textile future.

Learn more: <https://www.linz-textil.at>

About Quantis

Quantis is a global sustainability consultancy pioneering approaches to solve critical environmental challenges. The group partners with leading organisations who are serious about reducing their environmental impacts to future-proof their businesses and prosper in a new planetary economy. Quantis' unique approach combines deep environmental expertise, strategic business knowledge, and enterprise transformation skills to help organisations shape policies, practices and business models that align with the planet's capacity while building resilience, unlocking innovation, and optimising performance.

With offices in the US, France, Switzerland, Germany, and Italy, and clients around the world, Quantis is a key partner in inspiring sustainable change on a global scale.

Learn more: www.quantis.com

About TWD Fibres

TWD Fibres spin Polyamide and Polyester yarns with an expert eye on detail. Engineered and manufactured in Germany. As a fully integrated producer and specialist for filament yarns TWD Fibres GmbH, located in Deggendorf, Bavaria, covers the entire range of PES, PA, PP, PE and PBT filament yarns. With an average annual production capacity of 30 000 tons, TWD Fibres is Germany's largest producer of polyester and polyamide filament yarns. All production and finishing stages (spinning, texturizing, dyeing, twisting and coning) are 100% made in Germany. In close partnership with the customers, TWD Fibres develops "customised yarns" that are tailored towards specific applications. The most important application markets are automotive, clothing, home textiles, medical end-use, as well as several technical applications. Learn more: www.twd-fibres.de

About Veolia

Veolia Group aims to become the benchmark company for ecological transformation. With nearly 220,000 employees worldwide, the Group designs and deploys game-changing solutions that are both useful and practical for water, waste and energy management. Through its three complementary activities, Veolia helps to develop access to resources, preserve available resources and renew them. In 2021, Veolia supplied 79 million people with drinking water and 61 million people with wastewater services, produced nearly 48 million megawatt hours of energy and treated 48 million metric tons of waste. Veolia Environnement (Paris Euronext : VIE) achieved consolidated revenue of 28.508 billion euros in 2021. Learn more: www.veolia.com