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Press release from AFRY

Bio-based textile fibers from waste - AFRY main engineering partner in Infinited Fiber's new regenerated textile fiber plant in Finland

Finland-based circular fashion and textile technology group Infinited Fiber Company has selected AFRY as the main engineering partner for its new flagship factory for producing regenerated textile fibers for the world's leading fashion and apparel brands.

More than 92 million tonnes of textile waste is produced globally every year, with much of it ending up in landfills or incinerators. At the same time, textile fiber demand is increasing rapidly. Infinited Fiber Company's unique technology turns cellulose-based raw materials, like cotton-rich textile waste, into a premium regenerated textile fiber that goes by the name Infinna™. The technology, which can be licensed for both new factories and to retrofit existing pulp or viscose production units, offers a solution for eliminating waste and reducing the textile industry's burden on limited virgin resources.

Infinited Fiber Company currently operates pilot plants in Finland and has announced plans to build a flagship factory there to meet the strong demand from international clothing brands. The flagship factory will be the first of its kind in the world and will use post-consumer textile waste as feedstock. Production is scheduled to begin in 2024. In Finland, the national-level collection of textile waste will begin in 2023, and in the EU, the collection of textile waste will become mandatory in 2025, which will facilitate raw material supply.

The annual production capacity of the plant is planned at 30,000 tonnes of Infinna fiber, which corresponds to the amount of fiber needed for about 100 million t-shirts. Infinited Fiber Company has already sold a significant portion of future production through multi-year sales deals with global fashion brands, who see its regenerated Infinna fiber as an important part of their own circular economy strategies.

AFRY's assignment includes the basic engineering of the new factory to support the final investment decision. In this basic engineering phase, AFRY will design the combination of several technology and equipment deliveries into one viable plant. AFRY will also provide its AFRY Smart Site services for the digitalization of the factory, utilizing Industry 4.0 technologies to optimize and digitally connect all the factory's processes and operations.

"This factory project is vital for us. It enables us to make our regenerated Infinna fiber more widely available to the global apparel brands, and through them to ordinary consumers as well. The plant will also serve as a demonstration facility to accelerate the licensing of our technology. This is why we have chosen world-class experts like AFRY as our partners in the project. AFRY's strong track record of the successful implementation of similar projects convinced us that AFRY is the right partner to carry

out the basic engineering of our factory," says Petri Alava, CEO and co-founder of Infinited Fiber Company.

"We are honoured to partner with Infinited Fiber in this new investment to boost the circular economy in the textile industry by regenerating new fibers from textile waste. AFRY has extensive experience in implementing large factory projects. Together with Infinited Fiber, we are now designing a modern factory in Finland that will promote the use of regenerated fiber in the clothing industry," says Kalle Rasinmäki, AFRY's Head of Process Industries in Finland.

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About AFRY

AFRY is a European leader in engineering, design, and advisory services, with a global reach. We accelerate the transition towards a sustainable society.

We are 16,000 devoted experts in infrastructure, industry, energy and digitalisation, creating sustainable solutions for generations to come.

Making Future

About Infinited Fiber Company

Infinited Fiber Company is a fashion and textile technology group on a mission to bring joy and hope back to closets by making circularity an everyday reality. Their breakthrough innovation turns cellulose-rich materials – think worn-out clothes, used cardboard, or wheat straw – into Infinna™, a premium textile fiber that looks and feels soft and natural like cotton. Infinna™ is biodegradable, contains no microplastics, and textiles made with it can be recycled in the same process. Infinited Fiber Company is headquartered in Espoo, Finland. Learn more: <https://infinitedfiber.com/>