



## **GOING BEYOND COTTON – NEW PROJECT HARNESSES COLLABORATION & CUTTING-EDGE TECHNOLOGY TO CREATE CIRCULAR FASHION**

**24<sup>th</sup> November 2020**

**AMSTERDAM - Twelve pioneering players in the fashion and textile industries are breaking new ground by demonstrating an entirely circular model for commercial garment production. This is a world first in the fashion industry. The consortium of brands, manufacturers, suppliers, innovators and research institutes participating in the European Union-funded “New Cotton Project”, will prove that circular, sustainable fashion is not only an ambition, but can be achieved today. The project also aims to act as an inspiration and steppingstone for further, even bigger circular initiatives in the industry going forward.**

### **DEMONSTRATING CIRCULARITY IN TEXTILES**

Over a three-year period, textile waste will be collected, sorted and regenerated into Finnish biotechnology group Infinited Fiber Company’s unique, cellulose-based textile fibres. The fibres will be used to create different types of fabrics for clothing that will be designed, manufactured and sold by global brand adidas and companies in the H&M Group. At the end-of-use, apparel take-back programmes will collect the clothing to determine the next phase in their lifecycle. Clothing that can no longer be worn will be returned for regeneration into new fibres, further contributing to a circular economy in which textiles never go to waste, but are reused, recycled or regenerated into new garments instead.

The EU has identified the high potential for circularity within the textile industry, while simultaneously highlighting the urgent need for the development of technologies to produce and design sustainable and circular bio-based materials. Making sustainable products commonplace, reducing waste and leading global efforts on circularity are outlined in the European Commission’s EU Circular Economy Action Plan as necessary for Europe’s efforts to drive sustainable growth. The EU-funded New Cotton Project (CE-FNR-14-2020 – Innovative Textiles – Reinventing Fashion), with its consortium partners from Finland, Portugal, Sweden, Germany, The Netherlands, Slovenia and Turkey, directly addresses these critical issues and pioneers the implementation of a circular operating model for the textile industry.

### **A CONSORTIUM OF INDUSTRY LEADERS**

Infinited Fiber Company, whose patented technology can regenerate cellulose-rich textile waste into unique fibres that look and feel like cotton, is leading the consortium of 12 companies and organisations that span the entire supply chain. Manufacturers Inovafil, Tekstina and Kipas will use the regenerated fibres to produce yarns, woven fabrics and denim respectively. adidas and companies in the H&M Group will design, manufacture and sell clothing made from the fabrics, adidas is also collecting customer feedback and insights and, developing its textile take-back programme to reintegrate returned apparel back into the loop.

Frankenhuis will sort and pre-process the textile waste used in this project, while the South-Eastern Finland University of Applied Sciences (Xamk) will develop a technical solution for the continuous processing of textile waste fibres for pre-treatment. REvolve Waste will collect and manage data on textile waste to estimate feedstock availability in Europe and define the grade of the used textile



waste. RISE, the research institute of Sweden, will conduct the sustainability and techno-economic analyses for the project together with Infinited Fiber Company, as well as managing the eco-labelling for the project and subsequent fabrics and garments. Finland's Aalto University will analyse the created ecosystem and circular business models more broadly to help define the most feasible business model for the project. Sustainable fashion innovation platform Fashion for Good will facilitate stakeholder cooperation and conduct training, leading all project communication, branding and dissemination with support from Aalto University and Infinited Fiber Company.

“We are very excited and proud to lead this project, which is breaking new ground when it comes to making circularity in the textile industry a reality. The enthusiasm and commitment with which the entire consortium has come together to work towards a cleaner, more sustainable future for fashion is truly inspiring,” said Infinited Fiber Company’s Cofounder and CEO Petri Alava.

Fashion brands produce nearly twice as many clothes today as they did 20 years ago and demand is expected to continue growing. At the same time, the equivalent of one garbage truck of textiles is landfilled or burned every second. Most of the textile industry’s environmental problems relate to the raw materials used by the industry: cotton, fossil-based fibres such as polyester, and viscose as the most common man-made cellulosic fibre, are all associated with serious environmental concerns.

The New Cotton Project is a direct response to these problems, offering a valuable solution for textile waste and an alternative to the industry’s reliance on virgin materials like cotton, which require vast areas of agricultural land, unsustainable amounts of water and polluting fertilizers and pesticides for cultivation. The project is recapturing the valuable raw materials in discarded clothing and regenerating them back into high-quality, cellulose-based fibres that can be spun into new yarn, woven into new fabric, and designed into new clothes – again and again.

As this is the first project of its kind, this is also an opportunity to identify and find solutions for potential bottlenecks to scaling up circular textile production and for calculating the environmental impacts over the lifecycle of textiles.

The New Cotton Project has received €6,745,801.25 in funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 101000559.

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### **About Infinited Fiber Company**

Infinited Fiber Company is on a mission to harness cutting-edge technology and make circularity in textiles a reality. Our breakthrough innovation can turn any cellulose-rich raw material – think worn out clothes, cardboard, or wheat or rice straw – into unique textile fibres with the natural look and feel of cotton. Impurities, like polyester or elastane, are cleaned out in our process. The created fibres are biodegradable, and textiles made with them can be recycled again alongside other fabric waste. Our technology has been validated by leading textile and hygiene product brands and is ready to be scaled up. Working together, we can bring joy and hope back to the industry and the world as we go.

Infinited Fiber Company won the Europas 2020 Hottest Sustainability Tech Award, and was listed on the Global 50 to Watch by Cleantech Group in 2019. In 2016 we were selected into WWF's Climate Solver network. We are headquartered in Espoo, Finland. Learn more: <https://infinitedfiber.com>

### **About Aalto University**

Aalto University is a community of bold thinkers where science and art meet technology and business. We build a sustainable future by creating novel solutions to major global challenges. We value responsibility, courage, and collaboration.

By merging three leading Finnish universities in 2010, Aalto was founded to work as a societally embedded research university. In a short space of time, we have since become a forerunner in our key areas. We are renowned for our sense of community and culture of entrepreneurship and innovation.

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

### **About adidas**

adidas is a global leader in the sporting goods industry with the core brands adidas and Reebok. Headquartered in Herzogenaurach/Germany, the company employs around 60,000 people across the globe. adidas' sustainability mission is to End Plastic Waste through forging partnerships and developing product innovations that either: use recycled materials, are made to be remade or are made with nature. For 20 years adidas has been listed in the Dow Jones Sustainability Index as a leader in sustainability. adidas has set big goals for the coming years: only using recycled polyester in every product and on every application where a solution exists from 2024 (by the end of 2020 already more than 50% of its polyester will be recycled), 30% carbon footprint reduction by 2030 (compared to 2017) and carbon neutrality by 2050.

For more information visit: [adidas.com/sustainability](https://adidas.com/sustainability).



## **About Fashion for Good**

Fashion for Good is the global initiative that is here to make all fashion good. It's a global platform for innovation, made possible through collaboration and community. With an open invitation to the entire apparel industry, Fashion for Good convenes brands, producers, retailers, suppliers, non-profit organisations, innovators and funders united in their shared ambition.

At the core of Fashion for Good is our innovation platform. Based in the Amsterdam headquarters and recently expanding the programme to South Asia, the global Fashion for Good accelerator programme gives promising start-up innovators the expertise and access to funding they need in order to grow. Our scaling programme and our foundational projects support innovations that have passed the proof-of-concept phase, initiating pilot projects with partner organisations and guided by our dedicated team that offers bespoke support and access to expertise, customers and capital. Our Good Fashion Fund catalyses access to finance to shift at scale to more sustainable production methods.

Fashion for Good also acts as a convener for change, with the world's first interactive museum dedicated to sustainable fashion and innovation. In our headquarters, Fashion for Good houses a Circular Apparel Community co-working space, creates open-source resources like its Good Fashion Guide that provides practical advice to implement cradle-to-cradle™ certified apparel as well as white papers and reports investigating industry practices and developments.

Fashion for Good's programmes are supported by founding partner Laudes Foundation (formerly C&A Foundation), co-founder William McDonough and corporate partners adidas, C&A, CHANEL, BESTSELLER, Galeries Lafayette Group, Kering, Otto Group, PVH Corp., Stella McCartney, Target and Zalando and affiliate partners Archroma, Arvind, HSBC, Norrøna, vivobarefoot and Welspun.

## **About Frankenhuis**

Salomon Frankenhuis started the company Frankenhuis in 1874, in a time where the cotton industry was growing fast in Twente, Holland. Today Frankenhuis BV is a privately owned company, as part of Boer Group which has been collecting, sorting and preparing textiles, worn clothing and shoes for reuse for over 100 years. The entire process, transparent, under one roof with 750 employees sort approximately 112,5 million kg of used textile every year.

Frankenhuis B.V specialises in mechanical recycling of post-consumer textiles. With 30 full time employees, they produce between 6000- 8000 tonnes of fibre per year.

Besides making fibre, Frankenhuis also prepares post-consumer textile streams as feedstock for chemical recycling of textiles. To be able to do so, Frankenhuis "deep-sorts" post-consumer garments and defines the best suited recycling method and prepares the stream for the next step in the recycling process.



## **About H&M Group**

H&M Group is a family of brands, driven by the company's desire to make great design available to everyone in a sustainable way. H&M Group offers fashion, design and services, that enable people to be inspired and to express their own personal style, making it easier to live in a more circular way.

Read more here: <https://hmgroupp.com/about-us.html>

H&M Group's sustainability vision is to lead the change towards a circular and climate positive fashion industry, while being a fair and equal company across its entire value chain. With customers around the world, the company creates large-scale demand for sustainable materials and circular solutions. H&M Group's long-term approach means supporting innovations and making them scalable while driving increased transparency throughout the value chain.

## **About Inovafil**

Inovafil is a spinning mill, located in the north of Portugal, with a manufacturing unit in Vila Nova de Famalicão and headquarters in Guimarães. It produces a wide variety of special blends, both melange and ecru yarns, using conventional ring, open-end and, recently, air-jet spinning technologies. Thanks to its cutting-edge technology, Inovafil can produce natural, artificial and synthetic fibres. In recent years, the market has started to demand more and more specific products, not only in terms of functionality, but also in terms of comfort, safety and environmental friendliness. To meet these demands, Inovafil invested in innovation by creating a very complete and diverse portfolio. Due to increasing environmental sustainability awareness, Inovafil focuses on sourcing eco-friendly raw materials - fibres resulting from different types of waste; biodegradable fibres; recycled fibres etc. Also, in order to maintain its core values of honesty, transparency and social-environmental responsibility, Inovafil is certified Oeko-Tex® Standard 100, Global Organic Textile Standard (GOTS), Organic Content Standard (OCS), Global Recycled Standard (GRS), Forest Stewardship Council (FSC), Better Cotton Initiative (BCI) and Supima®.

## **About Kipas Textiles**

Kipas Textiles, established in Kahramanmaraş in 1984, with a turnover exceeding \$450 million and 6500 employees, is one of the leading companies in Turkey and its region with an annual production capacity of 80 million meters of fabric, a daily production of 330 tonnes of yarn and over 5 million garments annually.

As one of the most preferred suppliers of the world's leading brands, Kipas Textiles works on the sustainable production of yarns, fabrics and denim with minimum resource usage in water, energy and hazardous discharge. Kipas Textiles is tackling waste and pollution through environmentally friendly production methods and the latest recycling technologies. Committed to making a positive impact in the fashion industry, 60% of Kipas' production is made with sustainable resources. As a company, Kipas contributes to the Sustainable Development Goals in our daily practices and our sustainable production methods are audited regularly.



Because of their vertically integrated textile mill, Kipas is one of the largest sustainable yarn, fabric and denim manufacturers and preferred suppliers of the world's leading brands. Kipas Textiles has a wide product range such as upholstery, deco, shirting, sport and casual clothes fabrics, denim and technical textiles.

### **About REvolve Waste**

REvolve specialises in textile waste, recycling and circular materials flows. Recycling alone is not enough, and it's also very clear circularity is impossible without recycling. Therefore, REvolve focuses on delivering the data, insights and systemic developments needed for a rapid transformation of business as usual in the textile industry. Today, REvolve works with companies, non-profits and consortiums to map textile waste, define the short and mid-term circular opportunities within it and develop networks that effectively (re)cycle textile resources over and over again.

### **About RISE**

RISE is the Swedish research institute and innovation partner for every part of society. Through international collaboration with industry, academia and the public sector, we contribute to a competitive business community and a sustainable society. Our more than 2,700 employees drive and support all types of innovation processes. RISE is an independent, state-owned research institute that offers unique expertise and about a hundred testbeds and demonstration environments for future-proof technologies, products and services.

Read more at [ri.se](http://ri.se)

### **About Tekstina**

TEKSTINA is a leader in the manufacture of sustainable textiles and is a private SME with a workforce of around 75 people. Tekstina operates in one location in Ajdovscina in Slovenia with in-house research and development, design, testing and manufacturing facilities. Production facilities include warping, weaving and finishing plants with highly qualified specialists for dyeing, chemical treatment and finishing. In the last year Tekstina invested in a new printing house with roto-screen and digital printing machinery. The company management system is certified to ISO environment standards and the occupational health and safety norm. Products are certified under the Oeko-Tex Standard 100. Tekstina is the leading supplier of textile solutions for fabrics. Their innovative, customer focused approach ensures that they can design, develop, test and deliver a wide variety of fabrics across Europe to many of the world leading companies.

### **About Xamk**

South-Eastern Finland University of Applied Sciences - Xamk is a higher education institution that profiles as a strong implementer of research, development and innovation (RDI) activities. The goal is to help businesses thrive and to generate new entrepreneurship. In RDI projects the experts find, test and develop new products and services, or conduct research for the needs of businesses and the



world of work. In collaboration with the international partners, the experts strive to solve the common challenges of the future.

The RDI focus areas include Digital Economy, Forest, the Environment and Energy, Sustainable Wellbeing and Logistics and Seafaring. These feature national and international top expertise serving the needs of the largest companies in Finland and the export industry. The research cooperation partners include businesses, various organizations and public bodies, universities and universities of applied sciences and research institutes. The primary sources of research and development funding include EU structural funds, other EU and international research programmes, Business Finland, Academy of Finland, together with foundations, businesses and other organizations. South-Eastern Finland University of Applied Sciences (Xamk) started operating at the beginning of 2017, when Kymenlaakso University of Applied Sciences (Kyamk) and Mikkeli University of Applied Sciences (Mamk) merged.

For more information see our website <https://www.xamk.fi/en/rdi/>