

PR CXC Finland

CLOTH project - *Cluster Alliance for the Transition to green and digital fashion* - is a new alliance aiming to create a favorable ecosystem of relevant stakeholders, from a cross-sectoral perspective, promoting a greener, smarter and more competitive and innovative European Fashion industry.

The CLOTH project is an integrated cross-sectoral partnership with 5 partners from 5 European countries (Spain, Bulgaria, Romania, Denmark and France) working on different value chains: Fashion and Textile, circular economy, creative industry and Digital.

During the EU supported CLOTH Project will be organized minimum 100 short-term exchanges between targeted members of clusters located in other countries.

The CLOTH project is funded by the European Innovation Council and SMEs Executive Agency (EISMEA), under the powers delegated by the European Commission, COSME programme, call COS-CLUSTER-2020-3-03 / COS-CLUSTER-2020-3-03-1 (European Cluster Excellence Programme with ClusterXchange scheme connecting ecosystems and cities).

For more information visit: <https://clothproject.eu/>

ClusterXchange Finland 13th -15th of September 2023

The ClusterXchange to Finland was planned by the International Project manager at the Danish cluster Lifestyle & Design Cluster. The objectives were for the EU textile delegation to meet gain knowledge about circular principles and practices in Finland and exchange knowledge and learnings. The delegation met with Finnish front-runners within the textile value-chain and got introduced to how Finland works with circular economy within textile initiatives. During the 3-day program the delegation visited: Marimekko, Globe Hope, VTT Research Centre, Aalto University, Helsinki Design Week, LSHJ, Rester, Finnish Design Museum, Business Finland.

- Participants companies from Denmark: Trasborg, Hviid Hviid by JBS, Nybo Workwear, Magretheskolen, VIA University College
- Participants companies from Spain: Modacc, Selecta Vidal S.A., Filtros Industriales S.L, Technitiger S.L., Circoolar Ethical Workwear S.L
- Participants companies from Bulgaria: Bulgarian Fashion Association, Association Design Hub Varna

Finnish Design DNA Marimekko

The 3-day program began with an iconic visit to Finland's most well-known lifestyle brands [Marimekko](#)! It all began in 1951 with Viljo Ratia and his wife Armi Ratia and until 1973, all textiles were printed by hand but nowadays 1 million meters of fabrics are printed annually with two methods: rotation and screen print. Marimekko's design DNA is timelessness and has never actively participated in fashion trends. Nowadays innovation is a large part of their work and collaborate with innovative mainly Finnish companies. Some of such collabs is with Rester which provides recycled content and also recycles production waste from Marimekko's factory. Another collab is with [Origin by Ocean](#) which extracts bio-based chemicals from locally harvested algae and organic seaweed with the aim of minimizing the use of chemicals in Marimekko's



CLOTH

Cluster Alliance for the Transition
to green and digital fashion

Modacc

BFA

éco
entreprises
Alliance des Entreprises

ICONIC
be & share

Lifestyle & Design Cluster

printing process. In their collaboration with [Natural Indigo Finland](#), they have been testing printing with natural colors such as indigo. In addition, Marimekko designs are part of the collection of global brands such as IKEA, Uniqlo, Adidas. Marimekko has also worked with upcycling in their home collections. Marimekko has currently 3,500 textile designs in their catalog and continues to generate and redesign old designs such as 'Unikko' and 'Kivet' for 70 years now. Their primary markets are Scandinavia, but also North America and Asia as well as Australia.



Finnish Design & Engineer Education

The visit to [Aalto University](#) showed how valuable cross-sectoral collaboration between students from the creatives; designers and engineering students can be. High-level of innovation happens in the sweet spot of overlap and collaboration and new never seen results occur. The EU delegation had a tour at the '[Design for a cooler planet](#)' exhibition at the school with collab students and B2B projects. Some highlights from the exhibition were a bio-based water-resistant for textile fibers made from lignin a component found in wood that are naturally water repellent. Various interesting prototypes were exhibited made from lupine, nettle, cattail, algae and more were on display.



[FINIX project](#) focuses on new sustainable materials, digital innovations and circular economy. Researchers are looking at circular models that can keep garments in the loop for longer. The project's message is that more value of textiles needs to be maintained in Europe. The lack of large spinning and weaving facilities in Europe prevents textile-to-textile recycling making downcycling the primary and easier action to take. The FINIX consortium encourages policies that support beyond recycling businesses and keep value of textile products in Europe longer. Moreover, the EU textile strategy needs to support quality of textile products on the market and monetizing longevity and service businesses.



The research for the [loncell](#) chemical recycling technology began in 2009 at Aalto Uni and is still an ongoing process. In 2022 the loncell company was founded and continues the research work towards a commercialization model for the future. The loncell process is a lyocell process and chemicals used consist of a non-toxic ionic liquid (liquid salt) and water, recycled in a closed-loop process. In the laboratory, loncell® is able to separate polyester/cotton textile blends through the chemical process of dissolution. The final yarn has great properties within tenacity and elongation; therefore, the end product is of high durability. [Watch the making of loncell fibers here.](#)



CLOTH

Cluster Alliance for the Transition
to green and digital fashion

Modacc

BFA

éco
entreprises
Alliance de la Transition

ICONIC
Circular Economy
be & share

Lifestyle & Design Cluster



Collection & sorting of textile waste

[LSJH](#) is a waste management company owned by 18 municipalities and has since 2015 been the main coordinator of the national textile collection and sorting from citizens. 28 waste management companies exist today in Finland, and all of these pre-sort before being delivered to LSJH premises in Turku. To become a professional sorter, you need attend a 2-year education at Turku University of Applied Sciences. Citizens are asked to deliver their textile waste and continue to deliver their secondhand clothing to NGOs. Secondhand is sold by kg in LSJH own stores. LSJH has partnered up with spinneries in Spain to produce yarns of the textile waste collaborating.



[Rester](#) produces bales of shredded fibers in Paimio 2h from Helsinki for both non-woven and yarn spinning which takes place outside of Finland since spinning mills don't exist locally. The company has 6000sqm of

storage in Turku 20' from Paimio. Their main goal is to keep textiles in circulation and work on establishing value-chains across the industry. Rester's current capacity is 11.000 tonnes yearly. Companies working with Rester deliver the textile waste to their plant in Paimio and Rester is paid a fee to sort and handle the textiles. Certain materials such as cotton and wool are currently highly valuable making them materials that in the near future companies such as Rester will need to pay to get. The recycling process is about 5-6 steps where metal detectors are placed 6 different steps in the process to ensure that anything non-textile are taken out and this is done by air.



Testing & partnerships on circular textiles

[VTT Research Centre](#) is a combined national research and development institute spread across Finland. VTT is close to the industry and works with almost 50% of companies abroad. VTT has since 2015 been leading big research and symbioses projects 'Telaketju' where Finnish textile and fashion SMEs and big companies have been participating in various ways; by being involved in the planning of activities in the projects and ensuring that the focus areas and activities are relevant for the industry. The Telavalue continues now and keeps growing and developing in both size of stakeholder groups and in knowledge as well as results. VTT has several pilot facilities for companies to use and test materials, production methods etc. Tampere in Finland is where the textile industry used to be and still some is left today.

[Infinited Fiber Company](#) is currently using some of VTT's pilot facilities to run their pilot tests. Infinited Fiber Company was a spin-off some of a VTT project mentioned above and is today one of the leading companies within chemical recycling and in 2026 commercialization will be available. The Infinna fiber is a regenerated cellulose carbamate stable fiber and is created by 5 steps: Disintegration, fiber separation, carbamation, dissolving and wet spinning and in the end the fiber filament is cut, washed and dried. Huge players of fast fashion such as Inditex and H&M have already now pre-ordered Infinna fibers. [Watch the making of Infinna fiber here.](#)



CLOTH

Cluster Alliance for the Transition to green and digital fashion

Modacc

BFA

éco entreprises
Alliance des Entreprises

ICONIC
be & share

Lifestyle & Design Cluster



Export of Finnish Innovation

[Business Finland](#) is the export association for Finnish innovation in several sectors and a funding organ. The focus are three main sectors: transportation, energy, industries and digitalization and circular economy. Four Finnish companies were met with the EU CLOTH delegation and had speed dating sessions:

- Nordshield: biobased antiodor and antimicrobial coating for cellulosic and synthetics.
- Fabpatch: rub on fabric patches in various designs and materials for garments and for home.
- Ioxio: Data solution for digital product passport
- Orneule: Expert in knitted fabrics produced in Finland



Helsinki Design Week

[Helsinki Design Week](#) opened its doors in 2005 and has since then had Finnish as well as other Scandinavian brands as part of the exhibitors. It combines well-known design companies and a few artistic approaches to design. Talks on various topics also take place during the B2B days.



CLOTH

Cluster Alliance for the Transition
to green and digital fashion

Modacc

BFA

éco
entreprises

ICONIC
be & share

Lifestyle & Design Cluster



Finnish Design Museum

The [Finnish Design Museum](#) exhibits Finland's most recognized designers such as Marimekko, Alvar & Aino Aalto and well-known products such as the Nokia phones, video games etc. The delegation saw the textile exhibition with Jacquard woven tapestries by Finnish textile artist Kustaa Saksi: In the borderlands. Additionally, another exhibition by Swedish designer Jenny Nordberg: Strategies for Moving Freely on display focused on challenging the current model of production as well as consumption. Nordberg applies a problem-based and research-driven approach to her design practice.



"Green" Finnish fashion & accessories brands

Finland has several brands working with circular various principles and the ones identified are:

- [Globe Hope](#): The EU delegation met with CEO of Global Hope Jan Timm Utecht where he explained how he started Globe Hope in 2003. After many years at Marimekko he founded Globe Hope with the idea of a new business model, using already existed materials from other companies and industries, as resources to create accessories and garments. Since the beginning Globe Hope has designed in Helsinki and produced in both Finland and Estonia. The way material gathering works is by companies with surplus materials contacting the company directly or the other way around. Jan's vision has been since day one to make material cascades longer and to make durable high-quality products that are meant to be used for many years.



- [Pure Waste](#): Recycled pre- and post-consumer textile waste of cotton & polyester in India.
- [Pihka](#): a 10-y old brand focused on leather bags designed in Helsinki and produced in Tampere Finland. Pihka plans customized workshops for their customers at their store and design shop in Helsinki. Pihka's products have a lifetime guarantee and can be repaired endlessly.
- [Samuji](#): two collections yearly & high-quality durable garments made in Europe.
- [Terhi Pölkki](#): shoe brand emphasizing on craftsmanship, timeless design and strives to be environmental consciousness. Longevity is key in the design and the shoes are handmade in Portugal.
- [Papu Store](#): longevity and high-quality garments for kids and women. Part of the Finnish Fashion & Textile Carbon Neutral Textile 2035 commitment.
- [Frenn Helsinki](#): is a high-quality men's wear. Two years in a row, Frenn has received the best scores for Ethical trade Finland aka Eetti's responsibility survey, which review the climate, environmental and human rights work and transparency of 35 Finnish clothing brands. Frenn holds several certificates and offers a repair service as well as a take-back solution for their customers.



CLOTH

Cluster Alliance for the Transition
to green and digital fashion

Modacc

BFA

éco
entreprises
Alliance de la Transition

ICONIC
be & share

Lifestyle & Design Cluster



Helsinki seems to have embraced secondhand and has several shops selling on commission end-consumers garments, shoes, bags etc. such as [Urbaani Legenda](#), [Flea](#) and [Relove](#) that has several stores in Helsinki combined with cafes.



Conclusions & learnings from Finland

Finland and its approach to circular textiles seems to be very clear and common for the textile industry when it comes to the vision and goals Finnish stakeholders have for the future of Finnish textile sector. Actors such as Business Finland are a great funding instrument to textile circularity projects that VTT Research Centre leads and participant companies wish to engage, share and be part of a symbiosis, that generates important knowledge, needed for achieving a circular industry. It's clear that we can be inspired and learn from the Finnish way of collaborating very openly and achieving milestones together. Aalto University plays a vital role in the future of their industry as important research and innovation is being conducted with researchers and students. The cross-collaboration approach seems to be successful and is putting Finland as one of the front-runners within new circular innovations in the material and textile industry. Moreover, circular Finnish brands have a strong and clear DNA ignoring fast fashion and focusing



CLOTH
Cluster Alliance for the Transition
to green and digital fasHion



on less products of high quality and less collections, locally or EU produced, while updating small details in the designs or colour.