



INFINITED FIBER COMPANY

Tekstiilijätteestä uusiksi vaatteiksi, Ali Harlin

Kiertotalouden kirittäjät

– tuloksia kiertotaloushankkeista Suomessa 8.5.2019

Mission:

Sustainable innovation for bio-based textile industry

Cotton production has not grown since 2005 – replacement is needed

Textile is not allowed in landfill

Micro plastics is a major concern

Recycled cotton:
Solution for rawmaterials, waste and mirco plastics



Essential: Textile Recycling Ecosystem



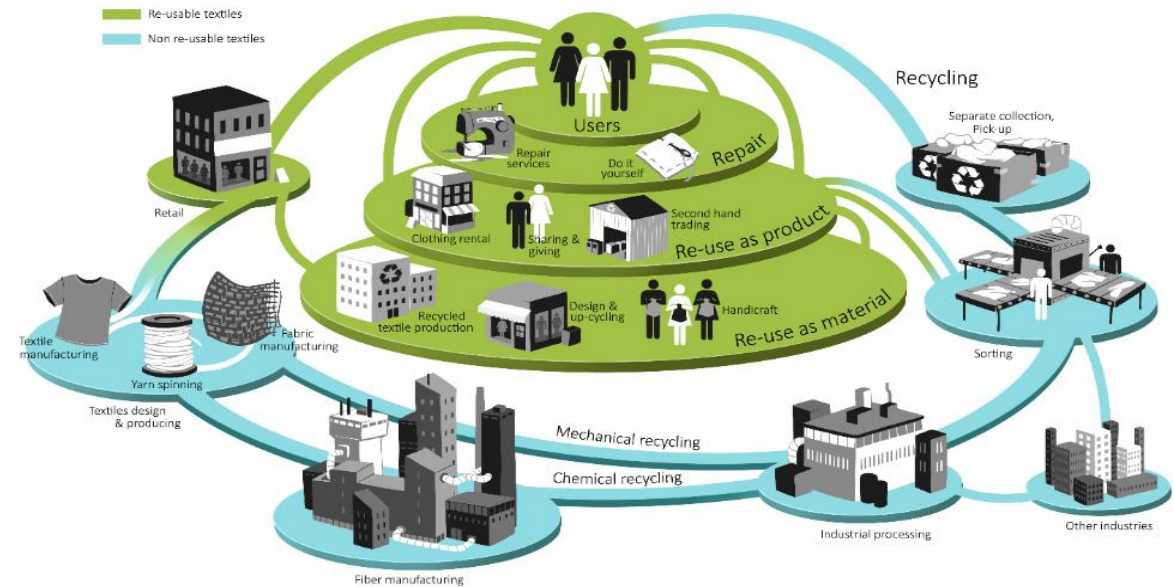
Over 100 million tons per year globally
(The Fiber Year, 2017)

Around 120 million bales (21,6 million tons) annually since 2005 (Statista, 2018)

Synthetic textile fibres are one big source of microplastics (Henry *et al.*, 2018; DeFalco *et al.*, 2018)

Western world with direct second hand retail markets is typically 10-20% (e.g. Watson *et al.*, 2016)

Raw materials are to be cycled within looped system (Ellen MacArthur Foundation, 2017)



Model of a circular business ecosystem for textiles.(Fontell & Heikkilä, 2017)

The Relooping Fashion Initiative project (Relooping Fashion, 2017)

Modelling work related to circular ecosystem of textiles (Fontell and Heikkilä, 2017)



Environmentally friendly technology



- The core Infinited Fiber technology consists of three key processes: activation, dissolving and fractioning.
- With the technology you can return the cotton, viscose and other cellulose based materials back to new natural fibers.
- The fiber is a new cotton.
- Technology can applied in any existing pulp, dissolving pulp and viscose fiber plant.



Challenges on the road

- Time to market
- Investment intensity
- Industrial risk funds missing
- Find industrial lead investor
- Steep scale-up bath



Our solution:

- 1) Go to right partners and**
- 2) Full fill requirements**

IFC HAS STRONG VALUE PROPOSITION OFFERING CLOSED-LOOP COTTON FIBER SOLUTION



BRAND OWNERS UNDER PRESSURE

- Sustainability as an emerging megatrend
- Inadequate availability of cotton
 - Fresh water is becoming a scarce resource
- Consumer behavior is changing
 - End-users' increased attention on sustainability
 - Loyalty and willingness to pay for sustainable products
 - Improved infrastructure and increasing consumer loyalty for recycling
- Social and environmental responsibility
- Eg. Adidas like to upscale faster to 100-150 ton/a

IFC'S SOLUTION

- IFC offers a unique closed-loop textile fiber technology to replace cotton and viscose
 - Benefits: Brand value rises, positive consumer experience, cost savings
- Firm orders from IKEA, VF Corporation, Suominen and Fortum for technology testing
- Scheduled commercial tests with Adidas, C&A, H&M and Calvin Klein for H2/2018.
- IFC has also direct connections to brands like GAP, MUJI, Nike, Converse, Marc Jacobs, Patagonia and Bestseller



17 August 2018



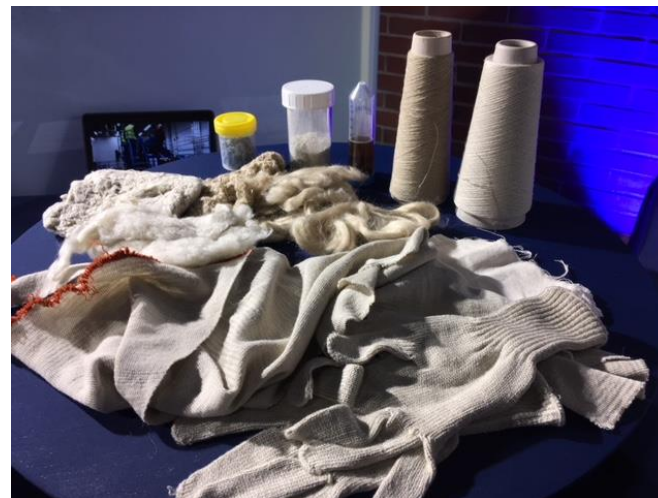
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Installation of pilot facility



Building visibility



Demonstration of products



The Relooping Fashion Initiative received a Highly Commended status in the Awards Program's public sector category in The Circulars 2016 Awards Ceremony held at the WEF Meeting in Davos on 19 January. The Circulars is the world's premier circular economy award programme, whose judging panel includes the circular economy pioneers such as Ellen MacArthur and William McDonough, as well as representatives from global business and university sector.



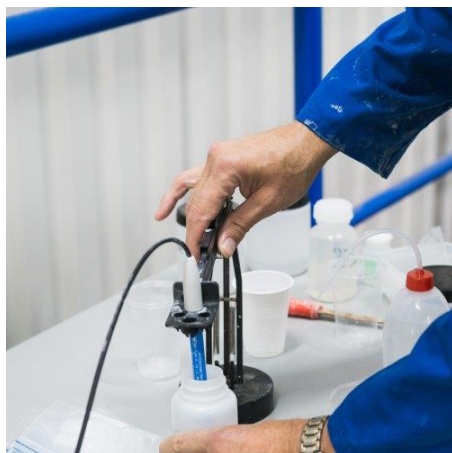
Growth of start-up

- Infinited Fiber Company Oy (IFC) has raised EUR 3.7 million in funding
- from investors, including Swedish fashion major H&M Group, Finnish energy major Fortum Oyj and equity company Virala Oy.

INFINITED FIBER



Next targets



- 2019: Industrial pilot
Capacity expansion from 50 to 500 ton/a,
Pre-engineering and feasibility study services
- 2020 - 2021: 1st commercial plant (25 kton / a)
Licensing (technology right + production license)
- 2022 - 2023: 1st high volume plant (>100 kton / a)
Licensing (technology right + production license)

