

TEXTILE PRODUCT STEWARDSHIP IS ON ITS WAY



THE NUMBERS

The global statistics roll off the tongue at each presentation, conference and Zoom call:

Global clothing production is over 100 billion units per year

Over 80% of the world's water is contaminated with micro plastics, 30% of which is derived from clothing

The clothing and textile industry creates more greenhouse gases than global shipping and aviation combined

It takes the equivalent of three people's annual drinking water to make a single cotton t-shirt

Most clothing ultimately ends up in landfill, releasing greenhouse gases as it decomposes.

WE KNOW THESE figures thanks to open-source research from organisations like the Ellen MacArthur Foundation and WRAP UK. The difficulty arises when trying to understand the local picture. It has been 12 years since the Ministry for the Environment's last comprehensive waste audit, which estimated total textiles at 4% of landfill. In that time global clothing production has almost doubled.

Enter The Formary

Coincidentally, The Formary was established around the same time as the last national waste audit. The Formary is a sustainability consultancy and textile R&D company specialising in the end-of-life of textile products. For our first eight years of operation we worked solely on international projects. This wasn't because we didn't want to work in Aotearoa but because sustainability was in its nascent stages, with brands focusing on social impacts and low public understanding of the impacts of what we wear. Working with brands that straddle the globe we learned about scale and impact.

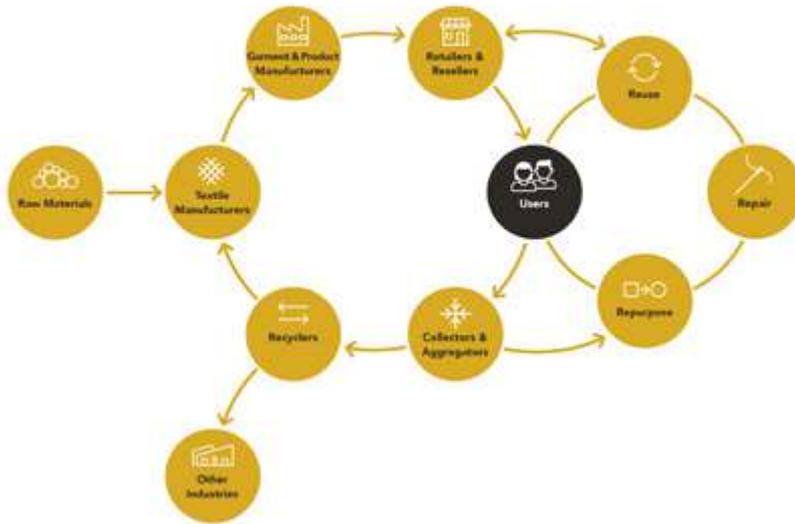
When we landed our first onshore client in 2016, we knew that individual waste diversion and reuse projects had an important role to play in testing new ways of working. But alone they would not deliver the scale of impact that was needed. What was urgently needed was systems change and collaboration. So we designed an optimal system – a circular system – to manage textile resources with the aim of radically reducing their waste and environmental impacts. We call this system Usedfully.

A voluntary product stewardship scheme for textiles

Crucial to effecting systems change is an understanding of the resources within that system. A first step in the development of a national voluntary textile product stewardship scheme was to map the material flows in Aotearoa. Our resulting report estimates that 220,800 tonnes of textiles are landfilled each year, releasing greenhouse gases as they decompose. In addition, textile manufacture is resource intensive and has a significant embodied carbon impact. Reuse, repair and repurposing activities have a critical role to play in reducing the need for manufacture of new textiles.

Our founding partners AlSCO NZ, Barkers Clothing, Deane Apparel and the Wellington City Council have fostered the design and implementation of this new system. Following the release of the report in November 2020 we held several widely attended industry workshops, with the goal of co-designing a product stewardship pilot planned for 2021.

The Stewardship Pilot and R&D of solutions go hand-in-hand with the building of a marketplace for used textile resources. The Usedfully management platform is a B2B service in which new garments are registered on the platform at the time of sale, then connected to reprocessors and new markets when decommissioned. This enables the generation of metrics on volumes of textiles reused and the associated environmental impacts for optimal resource management.



Callaghan Innovation's recently released Waste to Value report showcases Kiwi cleantech businesses, including Usedfully, that are focused on smart resource use. New Zealand is 22nd on the Global Clean Group Innovation Index (CGII). Callaghan's vision is to support cleantech businesses to develop scalable global offerings, to increase the number of \$100m+ NZ cleantech businesses and be in the CGII top 10 within two years.

Improved data capture of textiles and textile waste entering landfills can accelerate the circularity of textiles. This provides the information needed to support investment in new technology and infrastructure and can be supported by broad stakeholder involvement in developing and testing of solutions. Check out bit.ly/textilereuse to find out how you can get involved. **R**

References

textilereuse.com/reports
textilereuse.com/our-solutions



Brian Johnston is a business sustainability specialist at The Formary, with extensive global experience in integrating sustainability and long-term thinking into business strategy. Brian is also engaged in driving consumer-led behaviour change via CoGo, and engaging with non-textile businesses via his consultancy Connective Impact.

Bernadette Casey is the co-founder of cleantech company Usedfully, creative director of sustainability consultancy The Formary, sustainability advisor at Entire Studios and Whitecliffe Fashion School. Bernadette also contributes to publications including *NZ Apparel* magazine and *Pure Advantage*.