

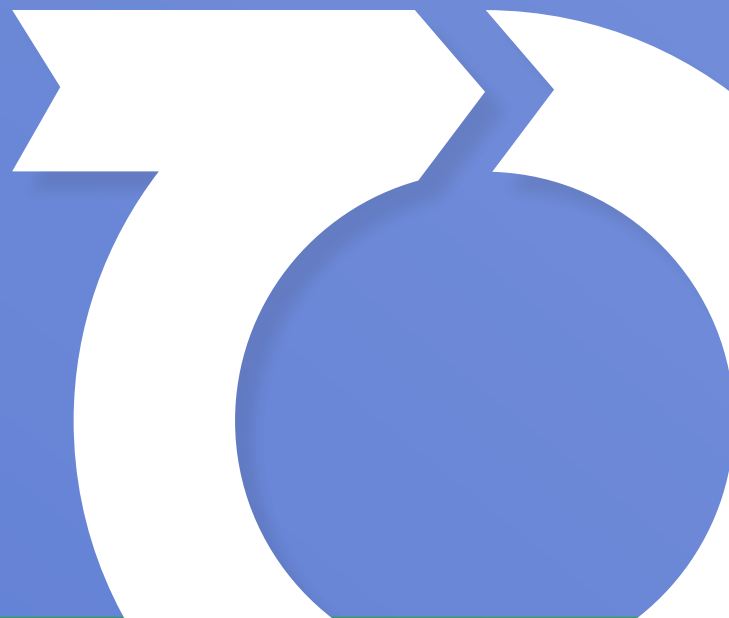


GREENBLUE®

FEATURE: THE RENEWAL WORKSHOP

Chemical Recycling

Making Fiber-to-Fiber Recycling
a Reality for Polyester Textiles



The Renewal Workshop - Preserving the embedded intelligence of apparel products

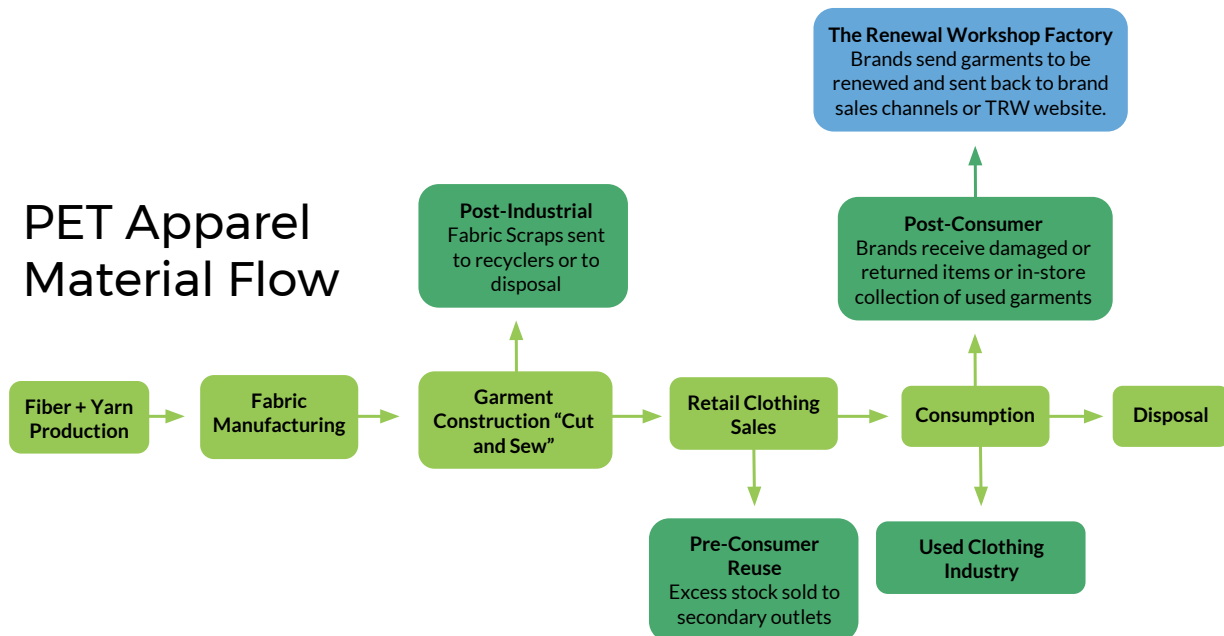
The [Renewal Workshop](#) (“TRW”) is a new chapter in the evolving history of the used clothing industry. The company’s founders, Jeff Denby and Nicole Bassett, both with extensive backgrounds in the clothing industry, started TRW because they saw an opportunity to extend the useful life of “unsellable” or “non-wearable” garments that were destined to be downcycled to lower value uses or sent as waste to landfills or incinerators. Their idea was to create a “Renewal Factory” where waste apparel could be reconditioned or renewed using an innovative process they developed. Partnering with TERSUS Solutions,

TRW cleans garments using liquid CO₂ and an environmentally safe process to remove oils, stains, particulates and odors all without water. 98% of the CO₂ is recycled via a closed-loop system that requires no water and no heat for cleaning or drying, saving as much as 50% of the energy used in traditional cleaning processes.

TRW provides a valuable service to brands that want to ensure responsible stewardship of their products. Brand motivations range from 1) greater transparency of the post-consumer fate of their products, 2) reducing risk to their brand by protecting brand lines from negative

associations due to exports of excess, low value or non-wearable quality clothing to other countries and impacts to local textile cottage economies, 3) a desire to find more socially and environmentally responsible solutions for managing their products at end of life and 4) increased profits from resale. TRW’s mission is to offer brands and retailers an alternative to capture the embedded value of garments already produced but that cannot be sold in order to preserve the creative, physical, natural and financial resources that have already been invested in their manufacturing. This enables brands to move towards a circular economy by extending

PET Apparel Material Flow



the service life of their products. TRW estimates that as much as 65% of the goods that are sent to them as “non-wearable” are salvageable as renewed clothing.

How Does It Work?

The Renewal Workshop partners with apparel brands and retailers who pay a partnership fee for TRW to manage their non-wearable recovered apparel programs. Discarded apparel is sent to the Renewal Factory where it is sorted by its highest use value. The salvageable fraction is cleaned and repaired - “renewed” - and is resold either through channels owned or managed by brand partners or through The Renewal Workshop website.

Currently, only 5% of the clothing TRW processes is sent back to brand partners for resale through their channels. The other 95% is sold via TRW’s website, where brand partners receive a share of the revenue of sales. TRW envisions a time in the near future where the mix will be more like 50/50 as brands build greater confidence in the Renewal Workshop process and are willing to assume more responsibility for the resale of goods through branded channels. The company expects that most of their brands will start selling through their own channels as early as Q1 2017.

TRW’s services include chain of custody tracking and reporting of all goods entering and leaving their facility, so brands have full transparency of the fate of their products. Clothing that cannot

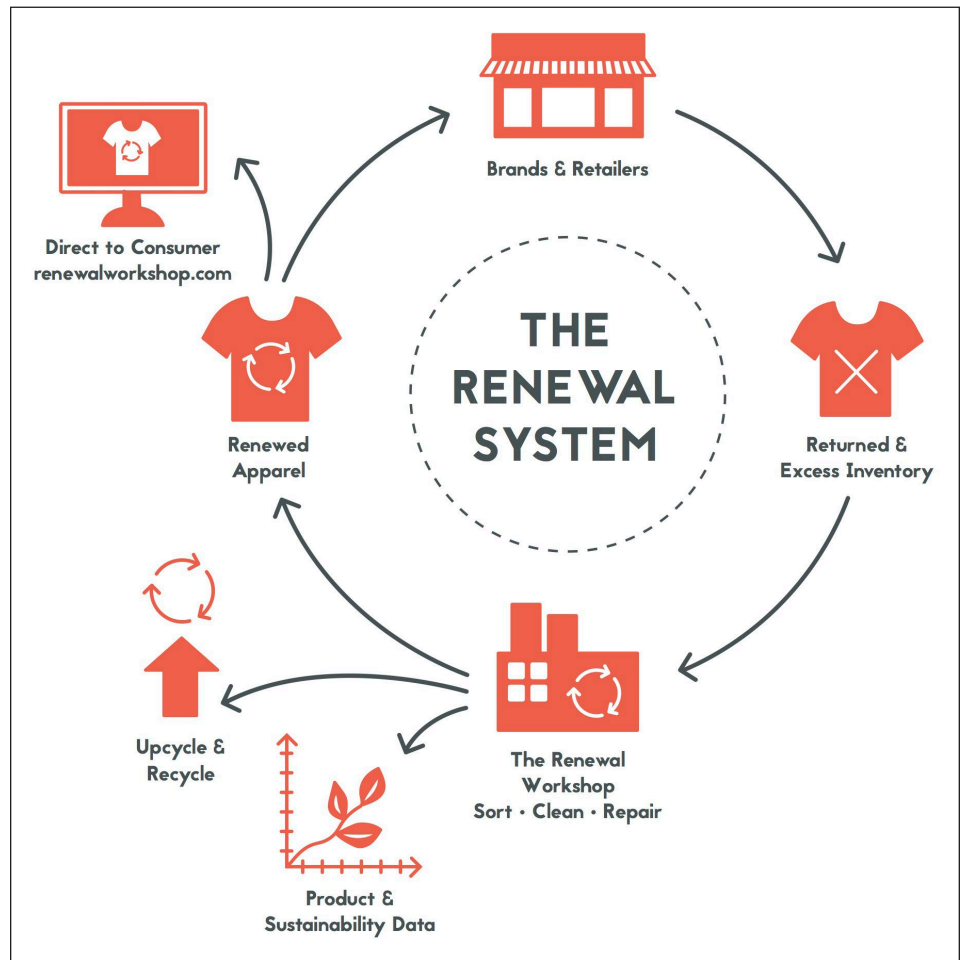


IMAGE COURTESY OF THE RENEWAL SYSTEM, 2017

be renewed is sorted by material type and prepared for “downcyclers, upcyclers, and recyclers”. Downcyclers will harvest fibers to make a variety of lower value secondary end products, usually non-woven materials used for insulation, carpet underlayment, or sound deadening applications.

A part of TRW’s commitment to helping their customers manage their end of first use products more sustainably is to find recycling markets that retain the material value as much as possible. TRW works with “upcycle designers” who use recovered materials to make new clothing. TRW also seeks to partner with recyclers to explore opportunities for recycling non-salvage-

able garments back into raw materials for new garments. TRW is capable of identifying and separating garments that meet the minimum threshold of 80% PET and sees chemical recycling of PET textiles as an opportunity to promote fiber-to-fiber recycling, ensuring that these materials do not end up in landfills or incinerators. 