

RECYCLING

## A MATERIAL DIFFERENCE

Worn Again Technologies has found a way to recycle polyester that could revolutionise the fashion industry

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ast year, news broke that Burberry had incinerated some £30m of its unsold clothes, accessories and perfume. The British brand isn't alone in its throwaway culture (which is also a result of its huge counterfeit challenges), with just one per cent of global apparel currently recycled into new clothing. But hope is on the horizon, says Cyndi Rhoades, CEO of Worn Again Technologies, which has developed a polymer recycling solution that can break down textiles, plastic bottles and packaging and extract the raw materials for use in new textiles.

"We can take in any pure or blended polyester or cotton, plus PET [the most common type of single-use plastic], and our technology will decontaminate and separate the dyes and finishes to extract the raw material," says Rhoades. "We're "Around simply recapturing them in order to 53 million tonnes sell them back into the supply chain.'

Originally trained as a film maker, US-born Rhoades started Worn Again Technologies out of a desire to solve some of the world's most pressing environmental issues. Since launching in 2005, the business has pivoted several times but Rhoades' 'eureka' moment came from a chance meeting with Dr Adam Walker, an expert in polymer recycling.

"The shift came with this molecular approach and Adam just happened to be someone with ten years of expertise in the space of solvent-based polymer recycling technology, doing exactly what we wanted to do," she says.

Rhoades and Walker teamed up in 2012 and, after establishing their proof of concept, began looking for investors whose businesses would benefit from the tech. "We asked ourselves, whose problem are we solving?" says Rhoades. "We realised it was the big brands – companies like H&M were starting to question their impact, so in 2013 we went to Sweden to show them what we had done.'

The high-street fashion brand soon came on board as an investor, alongside French luxury goods group Kering, which contributed to the company's

research and development arm. Since 2012, Worn Again Technologies has raised a total of around £8m in funding from a range of investors.

Rhoades says that the company's initial customers will be polyester and viscose manufacturers. "Fibre spinners will be the buyers," she explains. "But the concept of circular supply chains is that no one company can do it on its own. Everyone needs to be connected, which is why we brought in the likes of H&M and Kering. Brands like these represent the need for circular raw materials."

The demand is certainly there. Currently, global apparel consumption stands at 62 million tonnes each vear, set to rise to 102 million tonnes by 2030.

> Plastic bottles, meanwhile, are being bought at a rate of one million per minute, with only seven per cent recycled.

"Cotton production takes up vast amounts of land, water and pesticides, while polvester uses huge amounts of energy to drill for oil. Brands know they need to find alternative solutions if We see that as stock they're going to satisfy demand," says Rhoades.

Global roll-out is within reach, too. The company is in talks with a European city to establish its first stage plant, on which further operations will be

based. "Our target is to have 40 plants operating at 50,000 tonnes per year by 2028," explains Rhoades "It's ambitious, but we believe that the market is there. Around 53 million tonnes of textiles end up in landfill every year, which we see as stock that we could process.

The timing is also right. "Eight years ago, you couldn't walk into a company to have a discussion at this level," Rhoades concludes. "Today, the doors are opening left, right and centre, because people see the need for it and there's a huge desire to shift to new production models. It's great to see." ■

Interview by Marisa Cannon. Photography by Richard Cannon. More information: wornagain.co.uk

