There’s no debate that the textile industry is a major contributor to the waste stream and that the movement to do something about it is growing.

Now the issue of what do to with leftover and discarded textiles and apparel is being attacked at many levels.

Evrnu, founded and run by Stacy Flynn, has invented a regenerative fiber made from post-consumer cotton textile waste and has begun to sell it into the apparel, home goods and industrial markets.

“The textile industry is one of the most damaging industries on the planet and I didn’t see it until 2010, when I traveled to China and went into the areas where the subcontracting takes place,” Flynn said at the New York Textiles Summit at the Fashion Institute of Technology on Tuesday. “My colleague and I got out of the car and were standing right next to each other, but we couldn’t see each other, the pollution was so thick.”

For a month, Flynn travelled around the country and the conditions did not improve.
“I began to think about how many hundreds of thousands of yards I had made over the years in my career and all of a sudden I became linked to the cause of the problem,” she said. “So, my theory is, if one person can do so much damage completely unintentionally, what can the same person do to turn it around. So that’s what I’m committing the rest of my career to.”

Flynn went back to school and got an MBA degree in Sustainable Systems and soon launched Evrnu knowing that the supply chain begins with the fiber and the problem is the resources required to produce it and the waste it makes on the back end.

Evrnu captures cotton garment textile waste before it reaches the landfill, converts it into a liquid, then transforms it into a new pure fiber that can take on the characteristics the designer needs.

“Evrnu can work with donation facilities waste through licensing partnerships to collect the clothing, break it down and get the fiber into the supply chain,” Flynn said.

[Read more about textile recycling: These Companies Are Making Strides to Extend Clothing Life to Curb Textile Waste]

By reusing the fiber, Flynn said Evrnu helps save 98 percent of the water that it takes to make traditional cotton fiber and reduces CO2 emissions by 90 percent compared to polyester production.

“When we work with brands, we’re not advocating for the elimination of virgin materials,” she said. “What we’re advocating for is a balance on a platform level. So if virgin cotton is being used with a regenerative technology, this could offset the natural damage that cotton creates and sets up a model of reciprocity where you’re giving at the same rate you’re taking. And that is the ultimate sustainable model.”

In May 2016, Evrnu and Levi Strauss created the world’s first pair of jeans made from regenerated post-consumer cotton waste. Using Evrnu’s recycling technology, the first prototype was a pair of Levi’s 511 jeans created from five discarded cotton T-shirts.

In addition, Flynn noted that by preventing clothing from entering landfills, the creation of toxic methane is avoided.

“We’re actively trying to create the first carbon negative fiber on the planet,” she said.

Evrnu now has four early adopter brands and has opened capacity to bring in four more brands. Flynn noted that Evrnu has the ability to create custom fiber with specific characteristics.

Jennifer Gilbert, chief marketing officer of I:Collect, or I:CO, a global solutions provider for the collection, reuse and recycling of apparel, footwear and other textiles, explained how the company helps keep textiles out of landfills and in a continuous closed-loop product cycle through its innovative take-back programs.

“The key linchpin of a circular economy for us is collection,” Gilbert said. “You need the feedstock.”

The I:CO take-back system makes it possible to collect used clothing and shoes at a retailer’s point of sale and give them a new life through re-use or recycling. I:CO organizes the collection of clothing and shoes in more than 60 countries and has collected 70,000 tons to date. In 2016, I:CO collected about 59 million items of clothing and pairs of shoes that created a volume of 21,400 tons.

Gilbert noted that more than 40 retail partners work with I:CO collection programs.

“In collaboration with our parent company Soex Group, I:CO promotes the development of innovative recycling methods and works closely with international research institutes and recycling companies,” she said.

Together with its collection providers, I:CO organizes transformational projects with the aim of closing product and material loops.
“The key is reuse,” Gilbert added. “Our goal is to collect everything, everywhere, because we’re going to need everything in order to feed the circular economy. Another key is the consumer to partake and be committed to recycling and reuse of clothing and textiles. The bottom line is that collaboration is imperative.”