

YOUR SKI JACKET IS WAY GREENER THAN IT USED TO BE

Imagine outerwear made from recycled plastic bottles and sugarcane waste, and a manufacturing process powered by renewables. That future is already here.

BY MEGAN MICHELSON

Years ago, if you bought a new ski jacket, you wouldn't have known you were buying a product that wasn't all great for the environment. You might have thought, "It's a ski jacket. What could be harmful about that?"

But, back then, most technical, waterproof outerwear was made from non-recycled (and non-recyclable) petroleum-based fabrics. It required a tremendous amount of energy to produce. Plus, a jacket might be coated in a durable water repellent (DWR) made with perfluorochemicals, or PFCs, which can leach traces into water, snow, soil, wildlife and even you.

Everything from the manufacturing to the shipping to the packaging of that product took its toll on the environment. And if that jacket wasn't built to last through tough winter conditions, then it got thrown out and replaced with a new one all too quickly, adding to the massive pile of textile waste on this planet.

The good news? A lot of that has changed. Driven by major sustainability initiatives within brands and higher environmental standards put forth by consumers and big retailers like REI, outerwear companies have replaced some of their dirtiest habits with innovative solutions for making greener gear.

"We are sitting at three crises: climate change, certainly, but also water consumption and chemical outputs. The outerwear industry contributes...to all three," says Ammi Borenstein, an independent outdoor gear consultant and founder of Snaplinc Consulting. "Improvement in those areas was very slow going starting in the mid 2000s, but things have accelerated in their levels of improvement. The industry has banded together to develop solutions, and retailers have put pressure to accelerate the deployment of those solutions."

Take Picture. Three Frenchmen started the brand in 2008 with a singular purpose: to make ski clothing that puts the environment number one. Well before the practice became trendy, Picture was creating technical fabrics from plant-based sources to reduce the reliance on petroleum-built materials and move away from fossil fuels. This is the company that introduced ski helmets made from corn-based polymer and waterproof jackets built from recycled plastic bottles and zero-fluorocarbon DWR.

Fast forward a few years and Picture began

shifting its focus to far more than just sustainable products. The company is committed to fighting climate change, reducing the dependence on fossil fuel-based electricity along supply chains and limiting one of the biggest faults of the textile industry: overproduction.

"You can have the best recycled fiber in the world, but then the supply chain is still long and full of machines that need to be powered by electricity. Production of electricity is the number-one cause of greenhouse gas emissions in the world," says Florian Palluel, sustainability manager at Picture. "A solid energy transition to increase the use of low-carbon electricity, and at the same time producing less, is key."

Currently, B Corp-certified Picture is focused on using bio-polyester made from sugarcane waste to make jackets; shipping their products using bio-sourced and compostable polybags; and switching their suppliers' energy mix to more renewable sources.

Picture is hardly alone in these efforts. You can't talk about environmentalism in outerwear without mentioning Patagonia. What started as a climbing company by Yvon Chouinard in the 1960s has become a political powerhouse as well as a product manufacturer and leader in the American environmental movement.

Look at Patagonia's very mission statement: "We're in business to save our home planet." At least one percent of the California-based company's sales benefit hundreds of grassroots environmental and social justice organizations around the world. They were the first company to make fleece out of old soda bottles back in 1993. All of the company's electricity needs are currently met with renewable sources, and they plan on being carbon neutral across their supply chain by 2025. Over 60 percent of Patagonia's fabrics are now made with recycled materials, and by 2025, that number will be 100 percent.

"I see Patagonia's carbon-neutral by 2025 goal more as the starting point in our carbon-neutrality journey," Paul Hendricks, Patagonia's



[Top] Made Apparel avoids throwing materials with harmful DWRs and PFCs into landfills by buying unused fabric from other brands and using a made-to-order system. [\[i\] Courtesy Made Apparel](#)

[Above] Brands like Polartec, Patagonia and Picture are all upcycling plastic bottles—like the ones pictured in Ventura, California—to make outerwear. [\[i\] Courtesy Patagonia](#)

[Below] Picture recognizes how much plastic is used when shipping products, which is why they keep their packaging—or lack thereof—as simple as possible. [\[i\] Courtesy Picture](#)

[Facing] As a B Corp, Picture has to weigh how decisions will affect not just their company but also their community and the world at large. [\[i\] Courtesy Picture](#)





OUTERWEAR COMPANIES HAVE REPLACED SOME OF THEIR DIRTIEST HABITS WITH INNOVATIVE SOLUTIONS.

senior manager of environmental responsibility, said in a Patagonia blog post. "Ultimately, we want to rely less and less on offset mechanisms and see our gross emissions plummet toward zero."

New, much smaller outerwear brands are coming up with creative solutions to global problems, too. "Largely driven by the industry coming together, it's now easier for smaller and midsize brands to grab existing tools and best practices, so they don't have to reinvent the wheel to really make progress," says Borenstein, the consultant.

Made Apparel, a startup out of Vancouver, British Columbia, launched with a crowd-sourced Indiegogo campaign in April 2021. Made's goal is to make only what has already been ordered—thereby cutting overproduction and waste—and also use scrap fabric leftover from bigger brands to create custom, one-off pieces.

"We wanted to make something that didn't really exist: custom outerwear," says Dustin Butcher, cofounder of Made, which is using fully recycled and recyclable three-layer laminate fabrics. "We felt like the sizing options out there were very limited. If you can get a custom dress suit made in your exact size and specific material, why can't you do that for technical outerwear?"

Since Made doesn't make a single item until it's ordered, there's minimal waste. And since they're utilizing scrap fabric that's going unused from other

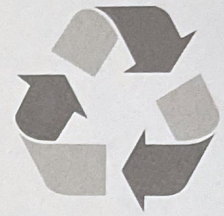
companies, they're preventing that excess from ending up in a landfill. "We want to decrease the amount of garbage and also the amount of gear that ends up on the sale rack," says Butcher.

There are still some issues in outerwear that have yet to be sorted out completely. PFC-based DWRs are still being used in the most technical layers from major outdoor industry brands, because zero-PFC DWRs simply don't perform at the same level of waterproofing. (And what good is a ski jacket that doesn't keep you dry?) REI has asked the brands it carries to eliminate long-chain PFCs, but the process is ongoing.

"As an industry, we're still dependent on some old ways of doing things," says Butcher. "The performance of PFC DWRs is superior, but at what cost? Moving to non-PFCs is the right thing to do, but there might be performance downgrades you have to be aware of. Knowing the limitations of the technology can help us figure out the solution."

Perhaps there's a future where outerwear is just one link in a circular economy, and nothing is new and nothing is wasted. Maybe there will come a day when we can drop our old jackets into a boiler and every zipper, trim and piece of fabric can be remade into something new.

Or maybe someday a ski jacket will capture more carbon dioxide than it emits during its manufacturing process, with power plants that sequester carbon to make polyester. Who knows? Anything is possible.



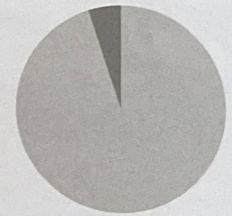
6,797 LBS.

Total mass of product that Patagonia collected and recycled through its Worn Wear program in 2018



180 COUNTRIES

Number of countries that, on May 3, 2019, banned the production and use of perfluorooctanoic acid (PFOA) and its derivatives



5%

Percentage of all landfill space that is textile waste in the United States, according to estimates from the EPA



27,000,000 FLEECE JACKETS

Approximate number of jackets produced as of 2015 resulting from Polartec's recycling of one billion plastic bottles