

# The trillion dollar question

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Written by Lewis Perkins



**Achieving net zero by 2050 could cost the textile industry an estimated US\$1 trillion. Here, the president of the Apparel Impact Institute (AII) tells *Ecotextile News* why - and how - we must foot the bill.**

**Clothing has always represented our identities. Centuries and even millennia ago, clothes spoke to where we lived - whether in bitter cold or burning heat, with locally grown and cultivated fibres, and in the style of local weavers. Clothes signified our religious beliefs, our ethnic identities and our work. Our values were woven into what we wore.**

As we face the crisis of climate change, it's time to return to our roots and bring values back to fashion. The apparel industry must make shared values – to protect our planet and its people – as integral to products as style and price by working together to scale known climate solutions and to unlock funding for scaling and innovating those solutions.

We have eight years to deliver a 45 per cent reduction in emissions – the minimum we need to keep global warming to 1.5°C – and no time to spare.

More than 100 apparel and footwear companies have already made a commitment to science-based emissions reduction targets, up from only a dozen three years ago, to help keep warming in check.

While this is undoubtedly a positive achievement, solving the climate crisis isn't going to happen in the C-suite alone. Instead, we need corporate leadership to weave climate goals into the fabric of their partners across the value chain, from farm and factory to clothes rack and closet.

The Apparel Impact Institute, which I serve as president, worked with the World Resources Institute to identify six key interventions that will bring us closer to net zero carbon emissions. These interventions are proven to work and largely achievable with existing technology. Implementing them will bring us more than halfway to our emission reduction goals.

**Maximise material efficiency.** To make a T-shirt, for example, cotton fabric is cut and sewn together, leaving scraps that often go to waste. With computer-aided design or other interventions, manufacturers can reduce the amount of scrap and, eventually reduce the raw material required to create a shirt. That means less energy, water and chemicals to grow and process cotton. Right now, only about two-thirds of the raw material for polyester and cotton products goes into the finished garment. We need to narrow that gap.

**Scale the use of sustainable materials,** like recycled fibres. The most emissions-heavy materials are polyester and cotton. Recycled polyester is growing rapidly in our sector, and some brands, like Patagonia, are finding ways to work with recycled cotton without reducing garment quality.

**Develop next-generation materials,** like plant-based leather or fabric made from textile waste. However, the emissions impact of these materials is not yet well known, and we need more research on how to smartly develop and scale these solutions.

**Maximise energy efficiency,** particularly in raw material extraction, processing and production. Upgrading facilities or rethinking processes like dyeing can yield significant energy savings. This is an important first step for brands, as it's a readily available solution that has a positive return on investment.

**Eliminate coal power** and shift to **100 per cent renewable energy** across the supply chain. Coal is cheap, and currently it powers many of the processes needed to make an item of clothing, from milling to heating water or dyeing. Renewable energy, meanwhile, often isn't available where manufacturing occurs. Some companies are exploring innovations in manufacturing, like waterless dyeing, but we need dramatic collaboration, investment and research to achieve this goal.

Implementing these solutions is challenging to say the least and will require a significant investment in our future – which is why the Apparel Impact Institute and Fashion For Good created a blueprint for raising capital to fund this work, including the research and development we need to go to net zero emissions.

We estimate that a kickoff fund of US\$50 billion from philanthropy and government sources can unlock US\$1 trillion in support from apparel companies, lenders and investors. While this sounds like a tall order, a number of brands are already finding capital or offering capital for climate solutions.

H&M and others have issued 'green bonds'. Jeanologia – which reduces waste and emissions for more than one-fifth of the six billion pairs of jeans made each year – has secured loans linked to water-saving targets. And Puma has offered raw material extractors better insurance rates if they meet certain sustainability goals.

Aligning solutions and capital across our sector requires super-charged collaboration. It's too late to go it alone, and the stakes are too high. Here's how to do it. First, brands should join together to support solutions in the regions where apparel manufacturing happens and give manufacturers a clear, consistent message on how to address climate change.

Second, funders of all kinds must scale these solutions – that means rapid infrastructure changes to scale up clean energy. Third, learn from other organisations - wherever brands make clothes, there are local environmental funders, clean energy groups, development banks, non-profit organisations, advocates, business leaders and policymakers who are already working on climate issues. They may not be directly related to the fashion industry, but they can still provide our industry with on-the-ground knowledge. Finally, we need to identify capital sources and help funds flow more quickly and easily to apparel suppliers.



Apparel Impact Institute, along with our partners at Sustainable Apparel Coalition, Textile Exchange and the ZDHC Foundation, is calling for a centralised 'Climate Solutions Portfolio' to help the apparel industry pursue its emission reduction goals.

We're building a donor collaborative that combines philanthropy and government support with brand and retailer sustainability budgets to unlock access to blended capital that can discover and scale solutions. The Climate Solutions Portfolio is a registry of all programmes and pilots, and an identifier of where we still need innovation.

As we work toward the goal of reduced and eventually net zero emissions, we need to keep in mind a final intervention that requires a true shift in mindset: creating a circular economy, in which nothing is made that cannot be reused, and no waste goes unrecycled.



It may seem like a far-flung idea, but already, clothing rental companies and second-hand online shops are thriving. Last year, the European Investment Bank signed a US\$35 million loan with a circular materials company, Renewcell, which turns discarded textiles into the aptly-named 'Circulose'.



We have solutions. We're finding capital. We hope you'll join us.