

Land and sea use change	Resource exploitation	Climate change	Pollution	Invasive alien species
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# Aquafil’s Regenerated Nylon Fashions a Revenue Opportunity

Part of the ['Opportunity Blossoms'](#) series on real economy investments in nature

Fashion and textiles have multifaceted impacts on our planet. The sector accounts for 10% of worldwide emissions and is the third-largest source of water degradation, causing 20% of global clean water pollution. Around 87% of all textile waste goes to landfill each year, leaching chemicals into groundwater and soil.

Headquartered in the Italian Dolomites, Aquafil is a manufacturer of carpet and clothing yarn. In 2011, it launched a nylon entirely produced from pre- and post-consumer waste that would otherwise go to landfill. The yarn is infinitely regenerable and cuts carbon dioxide emissions up to 90% relative to its oil-derived equivalent. In 2023, the product line accounted for €263 million (\$289 million) of Aquafil’s fiber sales – almost half of the company’s total – with 1,700 brands using it as a production input. As regulatory pressure grows on apparel firms to mitigate environmental impacts, the company is well positioned to unlock further opportunities in a sustainable fashion market estimated to be worth \$33 billion by 2030.

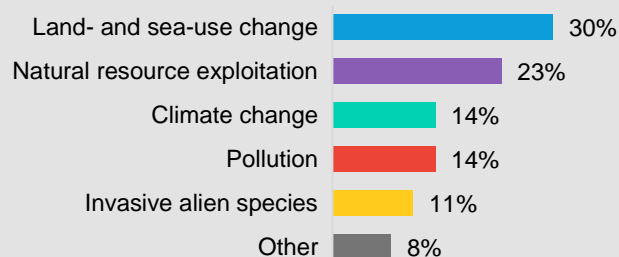
## The nature-friendly product

Founded in 1965, Aquafil produces yarn for clothing and carpets, with the latter used across a wide range of applications, from commercial buildings to vehicles. It developed Econyl, a regenerated nylon derived from plastic waste which is infinitely recyclable and an alternative to emissions-intensive oil-based nylon.

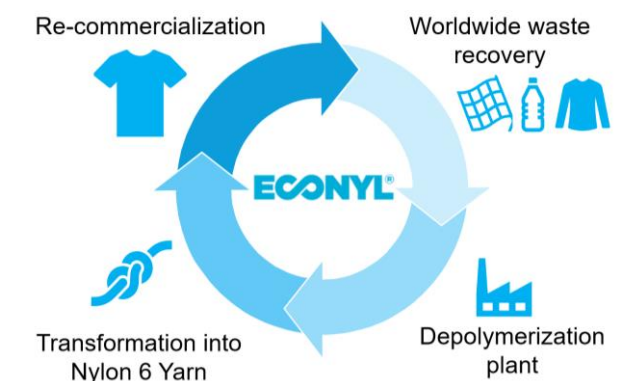
The Econyl ‘regeneration system’ retrieves waste that would otherwise be discarded in landfill or risk entering the environment, including discarded fishing nets, fabric scraps, carpet flooring and industrial plastics. These are then sorted and cleaned to recover all the embedded nylon. A chemical recycling process restores the nylon waste to an as-new condition, retaining the qualities of virgin nylon without the environmental footprint of the conventional material. The reformed synthetic strands are finally spun into yarn or processed into polymers for use in fashion or interior textiles. The recyclability of Econyl means that when products are no longer useful, they can be used as an input for step one of the regeneration process, preventing end-of-life waste.

### Mitigating nature loss

Five drivers account for over 90% of global biodiversity and ecosystem decline. Aquafil addresses resource exploitation, climate change and pollution.



### Econyl regeneration system



Source: Aquafil, BloombergNEF.

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Aquafil operates on a B2B model, serving clients across multiple industries but primarily selling nylon yarn for the fashion industry and carpet manufacture. Brands are increasingly opting for recycled inputs to help them meet sustainability goals. Multiple luxury car models now feature Econyl nylon in their floor mats and trim, including Jaguar Land Rover, Mercedes Benz, BMW's electric vehicles and Maserati's first fully electric SUV, the Grecale Folgore. Doing so reduces the vehicles' carbon footprint, aids end-of-life circularity and supports sustainable branding efforts.

Flooring also presents an opportunity for buildings to meet sustainability certifications as it provides a way to reduce embodied carbon. More building developers are opting for Econyl-based carpets to earn LEED credits, awarded based on green building practices, including waste reduction and the environmental impact of the materials used.

## Nature impact of regenerated nylon

The Econyl regeneration process enables the production of nylon derived fully from pre-and-post industrial waste. This cuts emissions by up to 90% during production, saving 7 barrels of oil and 6.5 metric tons of CO2e for every ton of Econyl produced. The manufacturing process of nylon is energy intensive and contributes to water pollution through the use of chemical dyes. Scope 3 emissions account for 95% of an apparel firm's carbon footprint, driven by the use of oil-derived synthetic fabrics, such as nylon, in the production of garments.

The use of waste as a feedstock avoids pollution from entering the environment, with over 16,000 metric tons of post-consumer waste collected and converted to Econyl products in 2023, and a target to reach 35,000 tons by 2025. To increase the amount of waste it processes, the company has started or invested in initiatives for end-of-life carpet and rug collection in the US and fishing net recovery in Norway.

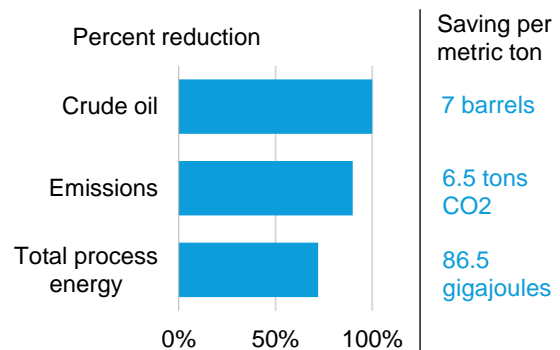
Synthetic fibers, including recycled nylon, contribute to microplastic pollution, with synthetic garments alone accounting for 35% of microplastics released into the

environment where they are particularly harmful to marine species. Aquafil has developed a methodology for measuring microplastics output from textiles as a first step to help designers make more informed textile decisions that reduce pollution, one of the main drivers of nature loss.

Econyl yarn does not use water in its solution dyeing process, eliminating the need to process wastewater and mitigating the product's total water pollution. The broader textiles industry is responsible for 20% of global drinking water pollution, according to the European Environment Agency.

Currently, 98 million metric tons of nonrenewable fashion textiles are generated every year. As Econyl is fully recyclable, clothes made from it can be collected and recycled at end of life, reducing the volume of clothes entering landfills, and thus pollution.

## Econyl harm reduction relative to oil-derived nylon, across energy, emissions and oil



Source: Aquafil, BloombergNEF. Note: Chart shows percentage reduction in crude oil, emissions and energy. Blue numbers are absolute savings for each metric ton of conventional nylon replaced by Econyl.

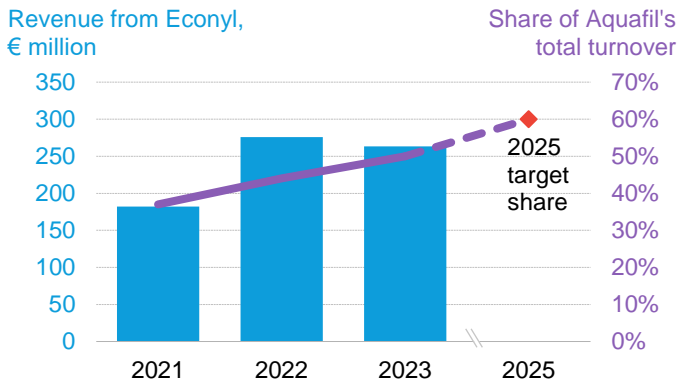
## Financial performance

Demand for Econyl has driven Aquafil Group turnover in the past five years, with revenue from the recycled product line growing at a compound annual rate of 7.3% over 2018-2023, versus a 3.3% annual decline across the company's other fibers. The material accounted for 50% of total fiber revenue in 2023, at €263 million, an increase from 37% in 2021. The company targets a 60% revenue share for Econyl by

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2025, with overall volumes set to grow 15-20% over 2024-25.

### Aquafil's revenue from Econyl



Source: Company reports, BloombergNEF.

The Milan-listed company completed a €40 million equity raise earlier in 2024 to drive growth of regenerated and Econyl-branded products to boost its market share in the US. In 2023, Aquafil invested €10.7 million in R&D to develop technologies and circular products to reduce environmental impacts, including plant-based nylon.

### Broader opportunities within the sector

Industries from apparel to autos are under pressure to reduce their environmental footprint as policymakers begin to tighten regulation on the nature impacts of textiles. Under the EU's Strategy for Sustainable and Circular Textiles, the European Commission will set design rules requiring that textiles are easier to repair and recycle and have a minimum recycled content.

In response, apparel companies have set targets on recycled content, in addition to emissions reduction. Aquafil's more sustainable offering helps companies covered by these regulations to meet targets without compromising quality. Bloomberg Intelligence has identified at least 1,700 partnerships between Aquafil and brands including Gucci, Prada and H&M.

The sustainable fashion market is forecast to reach \$33 billion by 2030, presenting a substantial opportunity for companies offering recycled nylon. The global recycled nylon market was worth \$423 million in 2022 and is projected to reach \$958 million by 2032, a

compound annual growth rate of 8.5%. Three further prominent producers of sustainable and circular materials are profiled in the table below.

### Notable Aquafil competitors

Company	Description	Financial gain
<b>Lenzing</b>	Austria-headquartered public company producing wood-based fibers for use in clothing and home textiles. It employs technologies to preserve resources and reduce environmental impact.	€2,521 million in revenue in 2023.
<b>Geno</b>	Startup using bioengineering to produce plant-based nylon and sustainable materials for a variety of industries.	\$388 million raised, including investment from Lululemon.
<b>Bolt Threads</b>	California-based public material solutions company selling bio-based leather and silk fibers for fashion and beauty.	Merger with Golden Arrow valued the company at \$346 million.

### Analyst take

Econyl is a growing portion of Aquafil's fiber sales and is on track to account for 60% by 2025. As nature and climate regulations tighten on the company's client industries, the regenerated nylon yarn offers a solution to meet sustainability targets and mandates. Corporate sustainability targets, including the use of recycled materials and circular design, will raise demand for sustainable material solutions over the next five years. While the company's capital raise discounted shares this year, the €40 million equity generation is set to drive growth of Econyl products, cost rationalization and innovation, positioning the firm to capture a bigger share of the sustainable textiles market.

#### More from Bloomberg Intelligence:

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[Nature Is in Fashion: Supply-Chain Oversight Key \(terminal\)](#)

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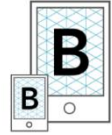
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