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# ENVIRONMENT REPORT

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Everbloom's Sustainable Cashmere  
Revolution



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# EXECUTIVE SUMMARY

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Cashmere has been the fiber of absolute luxury for centuries, yet the environmental cost of cashmere can no longer be overlooked. Overgrazing by cashmere goats has razed 70% of Mongolia's grasslands, with associated biodiversity loss, destructive dust storms, and climate exposure. Traditional production also places further ecological pressure through water- and energy-guzzling processing.

US technology company Everbloom is reframing luxury as a system of upcycling pre-consumer cashmere and wool waste into a regenerated luxury fiber. Using patented bacterial protein purification and chemical extrusion technologies, the company creates a product of luxury quality with hand and performance of virgin cashmere—but at significantly less environmental cost across its entire life cycle.

This research compares Everbloom's environmental footprint to that of traditional cashmere, weighs implications to the luxury value chain, and ascertains whether it can scale.



## 1. Traditional Cashmere Environment Cost

- Grassland Degradation: Over 80% of global cashmere is produced in Mongolia and China's Inner Mongolia. The enormous goat grazing has devastated 70% of Mongolian grasslands, causing serious soil stability and biodiversity issues.
- Water Usage: Great quantities of water are utilized to wash, scour, and dye cashmere, and water is often discharged untreated.
- Climate Footprint: Desertification, resulting from overgrazing, produces localized and potential global atmospheric impacts in the form of mammoth dust storms.
- Supply Volatility: Dependence on goat herding makes the supply of the fiber highly volatile to climatic stress and herd behavior.

In short, the environmental price tag of virgin cashmere reaches well beyond high fashion to impact ecosystems, rural economies, and atmospheric stability.

## 2. Everbloom's Innovation

- Feedstock Strategy

Feedstocks are produced from pre-consumer waste streams, including fiber rejects, yarn offcuts, and mill by-products. The strategy avoids the complex problems of post-consumer recycling (e.g., contamination and blending of fibers) and recovers material that would otherwise be combusted sent to a landfill.

- Fiber Regeneration Process

Everbloom uses protein purification technology to reclaim keratin from old clothing. It uses melt extrusion/melt spinning—historical means of producing synthetic fibers—to create protein fibers with molecularly designed properties.

- Material Quality

Tensile, softness, and moisture response can be engineered at the molecular level. Early trials in historic Italian mills indicate equivalence with, and even better performance than, virgin cashmere.



### 3. Environmental Benefits at the Lifecycle

Comparing virgin cashmere to Everbloom fibre

Lifecycle Stage	Virgin Cashmere	Everbloom Fiber
Raw Material Sources	Land-extensive goat grazing, high risk of overgrading	Uses pre-consumer waste, no new land take needed
Water Use	High in scouring/dyeing	Lower, input fibers pre-treated
Carbon Impact	Tracked to livestock methane + land degradation	Much lower—no animals, lower transport dependency
Biodiversity	Promotes grassland erosion, causes desertification	Does not cause further ecosystem loss
End-of-Life	Often landfilled or incinerated	Closed-loop potential—fibres can be recycled again

## 4. Supply Chain Integration

- Heritage Mills

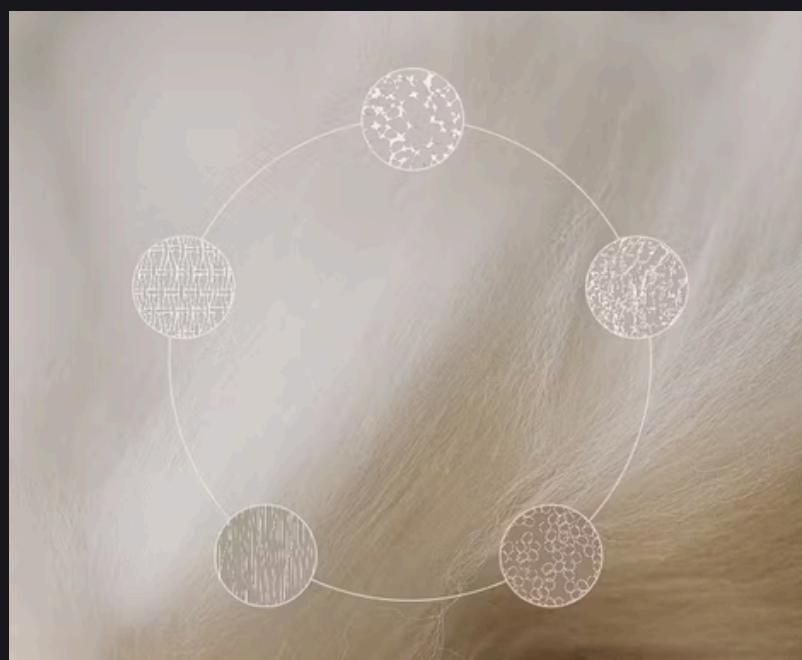
Acquisition by a Prada-owned company, for example, Filati Biagioli Modesto, is a significant industry endorsement.

- Compatibility

Everbloom fibers are fully compatible with current equipment with no retooling cost.

- Scalability

In contrast to goat-based production, Everbloom's production is industrial and deterministic, implying reliable supply is achievable.



Through preserving seamless integration without the cost of infrastructure redesign, Everbloom maintains adoption hurdles lower than other next-generation fibers.

## 5. Challenges & Risks

- Industry Conservatism

Existing companies are reluctant to substitute such an ingrained strand in established practice and one that is elitist.

- Perception of Quality

Strategic brand creation to convince customers that regenerated fiber is as good or even better than virgin cashmere quality.

- Scaling Reliability

With greater volume production, quality and quantity of fibers need to be maintained in a uniform way so that reputation is not damaged.

## 6. Environmental Win-Win

- For Herders

By minimizing dependence on extensive goat herds, Everbloom minimizes environmental strain, potentially enabling the maintenance of the traditional pastoral way of life.

- For Ecosystems

Land and water use is minimized through the process, adding to global sustainability goals through minimizing wasteful dumping of garment waste.

- For Brands

Accessible to mass market dressings and luxury, Everbloom creates sustainability for core ranges, as opposed to niche premium ranges.

## 7. Future Opportunities

- Market Growth

Everbloom will supply its fiber to ten mills in Europe in 2026, pushing its fiber into core ranges rather than capsule sustainability collections.

- Diversification

The same platform can be utilized to develop other protein-based fibers such as silk substitutes.

- Industry Transformation

By scaling, Everbloom's business model will be able to prove that circularity and luxury are not conflicting ideals but reconciliatory goals.



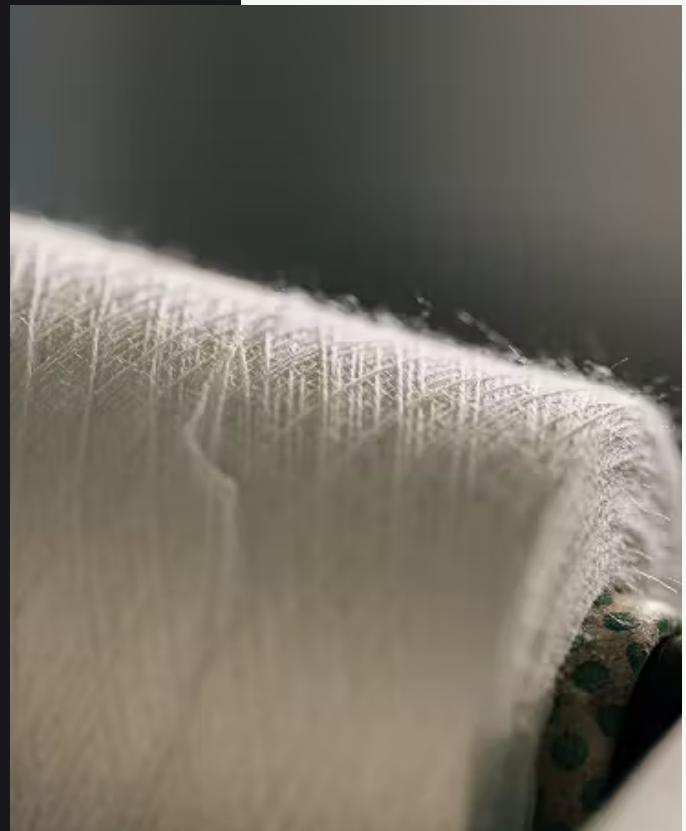
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# CONCLUSION

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As regulators, brands, and consumers are all pleading for sustainability and authenticity, Everbloom's answer gives something concrete: a material as soft and flexible as cashmere, but without devastating the very grasslands on which traditional production currently relies.

Everbloom's upcycled fiber illustrates how circular innovation can reverse the significant environmental strains of traditional cashmere. Its utilisation of pre-consumer waste reduces ecological strain at every stage without compromising fit within luxury supply chains.



## Last Word

Everbloom is not minimizing impact—it's redefining the playbook for luxury fabrics to co-exist with the planet.