

## Genomatica Hits Industry-First Milestone in Nylon Sustainability

*Clean manufacturing leader produces the world's first ton of renewable nylon intermediate*

**SAN DIEGO, California (January 29, 2020)** – Eighty years after [nylon's first commercial production](#), clean manufacturing technology leader [Genomatica](#) achieved a new milestone for the material — its production of the world's first renewably-sourced ton of the key ingredient for nylon-6, made from plants instead of crude oil. Nylon, the [first totally synthetic fiber to be made into consumer products](#) including apparel and carpet, is responsible for an estimated 60 million tons of greenhouse gas emissions per year through traditional production which begins with crude oil.

Genomatica's innovation, alongside partner and major European nylon producer Aquafil, will produce 100% renewably-sourced nylon that delivers equivalent performance to the conventional nylon that touches millions of people's lives, but with lower environmental impact. This bio-based nylon has the potential to reduce greenhouse gas emissions in a \$10 billion global industry that produces over five million tons of nylon-6 per year, to make carpet, clothing, car interiors, engineered plastics and food packaging.

“DuPont's landmark production of nylon eighty years ago introduced a highly versatile staple material to the apparel, textile and engineering product industries,” said Christophe Schilling, CEO of Genomatica. “It's a terrific material, and now, with the power of biotechnology, we can reinvent where it comes from. This is a major step forward in offering a new, more sustainable future with a better nylon for the full range of industries it serves.”

With the rise of fast fashion and the ongoing demand for nylon-based products, more sustainably sourced nylon ingredients are essential to reducing the industry's environmental impacts. The Ellen MacArthur Foundation echoed this sentiment in its 2017 report: [A New Textiles Economy](#), which cited making effective use of resources and moving to renewable ingredients as one of four core ambitions to realize this vision of a new global textiles system.



*Genomatica produced a ton of renewable nylon intermediate at ACIES BIO in Slovenia*

Genomatica's technology to make a naturally sourced nylon, recently recognized as a special mention in [TIME's Best Inventions](#), is made possible by fermentation — similar to making beer. The company engineered a microorganism and production process that ferments the sugars found in plants to make the chemical intermediate for nylon-6. This milestone marks Genomatica's successful scaling of this process to produce one ton of the intermediate. The chemical is then converted into nylon-6 polymer chips and yarn by Aquafil in Slovenia. For more info, see Genomatica's "[remaking nylon](#)" video.

Global partners have played a key role in accelerating Genomatica's bio-nylon program. Aquafil was the [first to join](#) Genomatica's program, bringing funding support and nylon-related chemical, quality and market expertise. Additionally, [Project EFFECTIVE](#), a consortium with 12 partners including major brands like H&M, Vaude, Carvico and Balsan, was formed to drive the production of more sustainable bio-based fibers for widely-used consumer products made from renewable feedstocks.

"Ninety five percent of Americans think sustainability is a good goal and we're seeing consumers demand more sustainable products," Schilling went on to say. "Our technology provides brands with a solution to meet this consumer demand for better-sourced products."

### **About Genomatica**

Genomatica is harnessing synthetic biology to remake the world of everyday products and materials through the power of clean manufacturing. The company is developing more sustainable, higher-performance key ingredients for everyday products, using plants and waste rather than fossil fuels or other non-sustainable sources like palm oil. Genomatica has already commercialized products to make better plastics, spandex and cosmetics, and is working on nylon, household cleaners and more. To learn more, visit [www.genomatica.com](http://www.genomatica.com).

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