At VitroLabs, lab-grown leather moves from theory to practice

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After the (many) plant-based alternatives to leather, laboratory-grown leathers now seem to be of interest to fashion and luxury brands. American start-up VitroLabs Inc. has just raised $46 million to build and scale the world's first pilot production of cell-cultivated leather. Kering is one of the investors and partners in this innovative solution.

From pineapple and mushroom to apple, grape, cactus, banana and kombucha, there's no end to the fruit, vegetables and plants now being used to make handbags and shoes that are more respectful of the planet and of animal welfare. These plant-based 'leathers' -- although not really leathers at all -- could today be overshadowed by a new material whose appearance and technical characteristics promise to be as close as possible to those of the real thing. And that material is lab-grown leather, cultivated in laboratories from cells of animal origin.

Animal cells as a starting point

The Californian biotech start-up VitroLabs Inc. recently raised some $46 million to build and scale a pilot production facility. After years of exploring the theory, the American company is now putting its findings into practice, resulting in the first cellular-cultivated animal leather. It's an important step forwards, since this could pave the way for the development of the first creations made from this innovative material. The aim is to limit environmental impacts and improve animal welfare.

"There has been an explosion of companies that are developing alternative materials to leather. However, at VitroLabs, our cultivated animal leather preserves the biological characteristics that the industry, craftsmen, and consumers know and love about leather, while eliminating the most environmentally and ethically detrimental aspects of the conventional leather manufacturing process associated with its sourcing," explains Ingvar Helgason, CEO and co-founder of the start-up.

This is not the first time that lab-grown leather has been in the spotlight. A company called Modern Meadow has been working on the subject for many years, but VitroLabs would be the first start-up to start producing it on a large scale. This is a significant step towards a more sustainable and ethical fashion industry.
larger scale. Not surprisingly, well-known names like Leonardo DiCaprio -- but even more so Kering -- are among the investors and partners in the project. The parent company of brands like Gucci, Saint Laurent and Balenciaga is only too pleased with this new opportunity, which could help it shape a more sustainable future.

Putting biotech at the service of fashion

This is not the first time the luxury group has shown interest in alternatives to materials considered damaging to the environment and animal welfare, but even more so in biotechnology. Back in 2020, in the midst of the pandemic, Bolt Threads announced the formation of a consortium around its signature mushroom-based material, Mylo, made from mycelium, the vegetative part of the mushroom. Adidas, Lululemon, Stella McCartney and none other than Kering were among the firms able to exploit the advantages of this new material exclusively.

In addition to pineapple, apple and grape, the mushroom -- or mycelium -- is among the most-used natural ingredients when it comes to developing cleaner and cruelty-free new materials, appearing today as a sustainable solution. It remains to be seen whether lab-grown leather -- which specialists hail as the closest alternative material to real leather -- can now surpass it.