

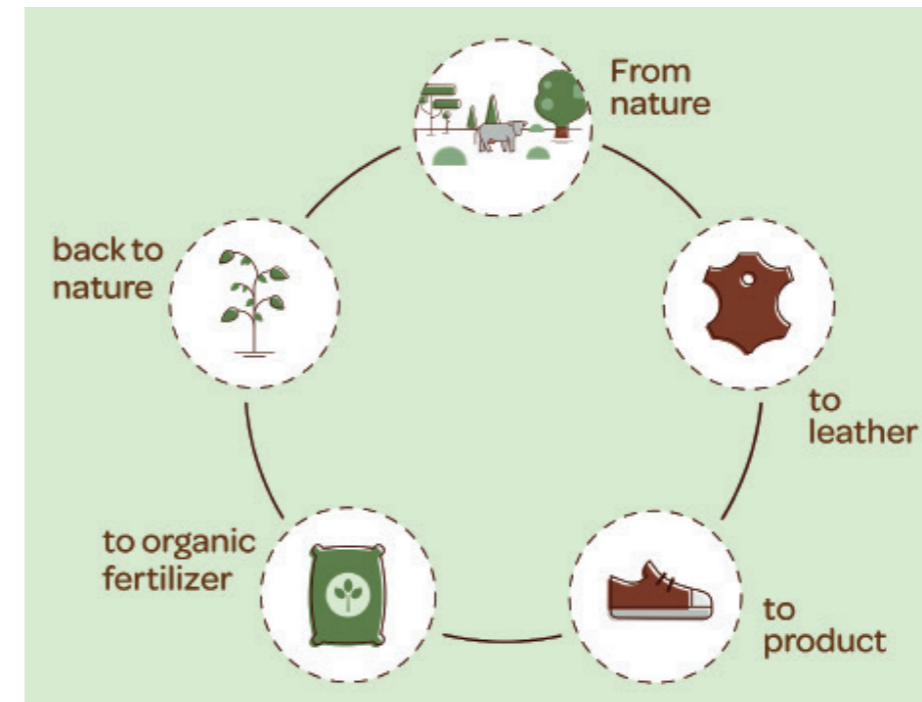
# Promoting circularity and the recyclability of leather

As demand for sustainable leather shows no sign of slowing down, Italy based tannins producer Silvateam has responded by offering innovative solutions to help both tanneries and brands answer the call for more eco-friendly products.

**A**mong these innovations, Ecotan stands out for its focus on circular, nature-based products. Launched in September 2020, the Ecotan project is not limited to offering a selection of sustainable tanning chemicals, but it represents a complete concept for recyclable leather articles, from tanning all the way to finished products.

#### Nature's Cycle

It may seem paradoxical, but innovation can, at times, have roots that go far back in time. Considering Silvateam's 165 years of experience in natural tannin extraction, it comes as no surprise that its Ecotan formulations avoid the use of metals and glutaraldehyde in favour of a combination of natural tannins and safe, man-made additives. While the use



of plant-based products may well be enough for brands to avoid the controversies and negative consumer perceptions surrounding mineral based chemicals, Silvateam has nonetheless ensured that its products could be certified as sustainable. For instance, it recently became the first producer of leather tanning chemicals to certify the carbon footprint of its products, as well as to be rewarded with the Programme for the Endorsement of Forest Certification (PEFC) for its production of Chestnut and Quebracho tannins. In many ways, these developments echo what Leather Business Unit Director Antonio Battaglia describes as the "continued commitment to environmental stewardship, the wellbeing of forests and local communities", a part of the company's identity, which goes hand in hand with its history.

Ecotan's natural approach is not only a question of the products used during tanning, the project also aims to make fully circular leather which can join the 'cradle-to-cradle' (C2C) philosophy. Also known as regenerative design, under this approach products become part of nature's processes, and materials become nutrients in the metabolism of a world whose health we must preserve. In Ecotan's case, both leather scraps and finished articles are designed to be 'bio-circular', meaning that they can be transformed into fertilisers for organic agriculture at the end of their useful life, returning to nature as nutrients for plants instead of ending up in landfills. In many ways, the lifecycle of Ecotan leather articles can be said to replicate the nature's life cycle, a journey which comes full circle when one considers that, indirectly, this fertiliser will help feed the same livestock which nourish the world population and supply us with hides.

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#### A complete approach

If one thing differentiates Silvateam's project from other sustainable leather offerings, it is its scope. While tannins form the core of Ecotan's sustainability claims, the project aims to ensure that the leather stays sustainable throughout its entire lifecycle. Battaglia states, "complete sustainability requires a complete approach, it is not just a matter of which tanning products are used. This is why we decided, thanks to the advice of footwear consultant Pete Lankford, to ensure the leather stays green throughout its entire lifecycle."





On top of the aforementioned focus on sustainable raw materials and leather's recyclability, part of this vision is meant to safeguard the health of the end-user. "Many of the substances we use are not only harmless, but food grade. None of the products had to go through REACH testing because they are naturally harmless," says Battaglia.

Ultimately, this approach not only translates into leather that avoids the possible health issues of coming into contact with harmful substances, but even offers added value benefits for peoples' well-being. "The evapo-transpirative qualities of Ecotan leather allow it to breathe and also to actively absorb, then wick perspiration moisture away from our skin," he told ILM. "This helps prevent the formation of odours by creating an unsuitable environment for proliferation of bacteria, while maintaining a perfectly balanced microbiota. This quality is particularly beneficial when used in footwear."

#### A coordinated effort

In order to gather the necessary know-how for the project, Silvateam worked with a wide range of partners across the whole supply chain, from small artisans to some of the world's largest tanneries, as well as relying on the expertise of specialised finishing and recycling companies. The official tannery partners so far are Tanneries Haas, Rial, Mégisserie Richard and André Hiriart in France; Volpi Conceria, La Scarpa and Conceria Valdarno in Italy; Curfimex, Wyny and Panamericana del Bajío in Mexico; Sadesa in Argentina, JBS Couros in Brazil and Sepiciler in Turkey, with several more to come.

"Thanks to our partners and their expertise, we managed to piece together what we believe is a viable solution to address the vast majority of the concerns people have about the sustainability of leather," says Battaglia. For example, Silvateam coordinates directly with its long-term finishing partner Biofin, part of Gruppo Biokimica, to ensure that the leather stays recyclable even after finishings and dyes are applied. The finished leather is then assessed by Ars Tinctoria for the metal content analysis, and finally by the Italian fertilising company Fertilizzanto Certaldo to confirm the recyclability of Ecotan leather.

Ultimately, the leather industry may still be a long way from the effective recycling of finished products, since fashion brands must first setup the commodity chain needed to collect discarded leather articles, but thanks to Ecotan, there is the chemistry and know-how needed to make this possible. As stated by Battaglia: "Times change, and so do customers' demands. No company can afford to rest on its laurels. We must be adaptable and keep an eye on innovation. But at times, the most innovative approach means going back to our roots: nature." I

