The latest innovation regarding sustainability of the tanning process comes from the university world. The Crossing start-up, an academic spinoff of “Università Ca’ Foscari” of Venice, a bridge between university laboratories and industry for applying green inventions in various sectors, is in fact working on developing new tanning agent as alternatives to chrome, which appear highly promising from both the environmental and economic viewpoints.

The original idea behind Crossing comes from study and knowledge developed by the work group of Dr Valentina Beghetto at the Department of Molecular Science and Nano systems of Ca’ Foscari relative to a specific class of molecule used as cross-linking activating agents (ACL), hence the name. At present there is only one ACL on the market in a limited quantity and at costs unviable for industrial application. Therefore the initial question was how to apply ACL on a large scale. «Through an innovative technology developed by Crossing that radically cuts production costs and multiplies the number of ACLX that in future will be available on the market», explains Dr Beghetto. «The intuition of partenza is thus that of applying Crossing data to develop a process without chrome which appears economically unfeasible. In textiles, for example, experiments are in progress on innovative treatments of natural or synthetic fibers used on clothes to “attach” antibacterial, antiviral, anti-odour agents to their surfaces. Specifically, the Crossing team has prepared new organic industrial products in an eco-friendly and economical way. Briefly, these are “activators” that work in a similar way to enzymes, activating chemical reaction without leaving traces in the final product. Various projects are currently in progress to develop new applications: these range of “active” cartons that preserve the quality of milk and wine without use of preservatives, to shopping bags that are not only biodegradable but also strong and water-resistant. The potential use of these activators specially in the manufacturing industry for applying green technologies in various sectors is highly promising.»

Arrivede dall’Università La Concia Chrome-Free

Grazie alla tecnologia sviluppata dallo spinoff accademico CROSSING oggi è possibile produrre nuovi agenti concianti ricollegare e che “unicorno” senza alterare la composizione chimica della pelle permettendo un processo di concia senza cromo più rapido ed economico, oltre che sostenibile.

La presentazione al Convegno AICC di giugno a San Miniato (Pisa)

La recente innovazione nel settore della concia si colloca al vertice della ricerca ed ha come protagonista l’Università Ca’ Foscari di Venezia. Attualmente, la Concia Chrome-Free è a disposizione del mercato e grazie a Crossing si spiega Valentina Beghetto.

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Valentina Beghetto with her team of researchers

Dr. Valentina Beghetto con il suo team di ricercatori
Tali soluzioni sono state illustrate al settore nel corso del convegno AICC svoltosi a giugno a San Miniato, in provincia di Pisa. Il dottor Francesco Cherubini ha presentato una relazione con il titolo esplicativo: "Innovative reticulation agents for tanning hides". Questi agenti rivelano una serie di vantaggi tecnici e economici rispetto ai tradizionali tannini.

Vantaggi Tecnici

- **Riduzione del tempo di lavorazione:**
  1. Assenza di pickling
  2. Tempo di concia di 6-8 ore per pieno spessore
  3. Assenza di basifica post concia

Vantaggi Economici

- **Riduzione:**
- **Costi Smaltimento Refflu:**
- **Consumo Reagenti Acqua/ Energia Elettrica:**
- **Aumento:**
- **Produttività dell’Impianto:**

La team imprenditoriale Crossing da parte del dottor Francesco Cherubini ha presentato un'apertura di lavoro e prossime iniziative.