

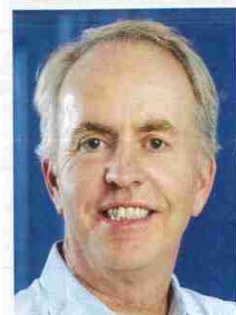
# LCA methodology in leather manufacturing

**A long-standing discussion that affects the industry is the impact of leather production on the environment. While some may say the impact on the environment is close to zero because leather is a by-product of the meat and dairy industry, others disagree. Life Cycle Assessment (LCA) is a methodology that measures the impact of any product on the environment in the course of its life. Michael Costello, Director of Sustainability at Stahl, advocates the methodology and explains how the leather processing industry can use it.**

**M**ichael Costello: "In April this year the Leather Product Category Rules (known as PCR or PEFCR) were approved by the Environmental Footprint Committee of the EU. This may read like a dull headline, but it is actually a major milestone for the leather industry as it defines how LCA can be used to calculate the impact of leather manufacturing on the environment. We believe this will facilitate a more scientific and fact-based approach to footprinting."

Using the boundaries defined in the PEFCR, Life Cycle Assessment methodology offers a harmonised way to calculate the environmental impact of leather. It includes all aspects of leather manufacturing in tanneries; input data on hides, chemicals, water, energy, plus output data of water, air and waste. Large quantities of data are already available for this purpose and software converts these data into recognisable environmental categories such as climate change, ozone

## About Michael Costello



Michael Costello, Director of Sustainability, Stahl

Michael Costello is Stahl's Director of Sustainability since October 2015. Stahl strongly believes in taking a leading role in achieving a more transparent and sustainable supply chain by stimulating cooperation between its stakeholders. Costello participates in conferences around the world, focussed on reducing the environmental footprint of the industry and other corporate social responsibility topics. He presents the Company's case to customers, brands, industry associations, NGO's and universities. He is member of the Executive Committee of the Leather Working Group.

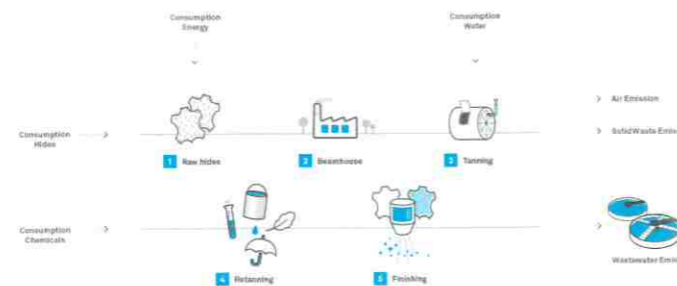


Figure 1. Schematic diagram of leather making inputs and outputs

depletion, water quality, air pollution and so forth. "With these rules, we can communicate the environmental impact of leather in language that is also understood by the environmental community, including NGOs", Costello explains. It is a very important step for the industry.

Still, the PEFCR needs some improvements says Costello. For example: 12% of the farming is allocated to livestock and 3.5% of the slaughter is allocated to the rawhide. "There is still confusion about these percentages and about how the allocation can be calculated. Although the details of the allocation are included in the PEFCR document, it is not easily understood in my opinion."

Cotance, the Confederation of National Association of Tanners and Dressers of the European Community, acknowledges that there is still some 'unfinished business' like the zero-allocation discussion. A transition phase is to follow until 2020, when lessons of the four-year pilot phase will be drawn and possible policy options will be considered.

## Complex document

Another point of improvement according to Costello is the complexity of the PEFCR document. "The current set of rules is very comprehensive and well researched, but it is heavy going.

The industry owes it to itself to make it as understandable as possible for all partners in the leather supply chain worldwide. Tanneries, for example, can provide us with very important data to gain more insight into the leather supply chain. In order to get them aboard, next to making the rules concise, we could also consider translating it into different languages."

Nonetheless, Costello is a big advocate of the LCA methodology. "Indeed, LCA modelling could become the standard practice for the future, allowing for real comparisons to be made," he explains. "This, in turn, means better decisions on processes and technologies, as the methodology gives insight in the actual fact-based environmental impact."

Stahl, as a company specialised in speciality and chemicals for leather and other flexible materials, uses the LCA methodology themselves to measure the environmental impact of their products on the processes where they are used. "We value the fact that the method gives scientific evidence and that way we contribute to more transparency in the leather supply chain. The impact of LCA will be much greater when more partners in the supply chain provide data."

"We have begun a series of public speeches on this topic to explain how LCA methodology can be applied using the Product Category Rules to audiences in the leather industry. We spoke during webinars and during the American Leather Chemists Association (ALCA) convention in Chicago last June. Both UNIC and Stahl gave consecutive talks from different perspectives on the topic of LCA. At the recent AQEIC congress, the Spanish tanners' organisation, we also explained the importance of the boundaries drawn under the leather PEFCR." Costello also gave a presentation webinar organised

by ILM, of which the recording is still available via the ILM website homepage.

Costello concludes: "We believe that using LCA methodology to measure the true impact of products and processes on the environment is an excellent opportunity for the industry to prosper. We hope that LCA will reduce our footprint in a quantitative way and thereby contribute to a more sustainable industry." ■

## casestudy Cotance pilot

### The Life Cycle Assessment methodology

Several years ago, Cotance began a pilot to establish rules and boundaries for measuring the environmental footprint of leather using the Life Cycle Assessment methodology. Various organisations in the industry contributed to this project, for example, in determining the boundaries of the assessment; where it begins and where it ends. In April 2018, the Environmental Footprint Committee of the EU approved these rules. This means an established standard has been set for the environmental impact of the leather industry.

The LCA methodology can provide quantitative, full life cycle information on products in a format that can permits comparisons to be made. This allows leather manufacturers and other partners along the supply chain to demonstrate their capacity to help reduce environmental impacts linked to their business.

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