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Vol.58

March - 2024

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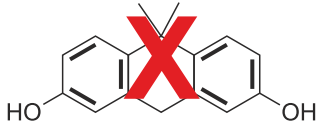
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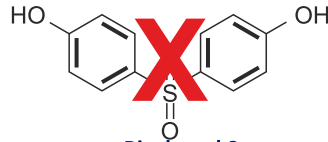
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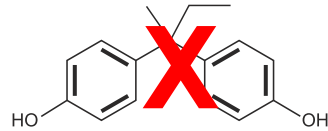
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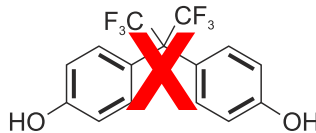
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## Fair (s) Results

The recently concluded four Italian Fairs, **Micam Milano, Mipel, The One Milano and Milano Fashion & Jewels** dedicated to Fashion & Accessoires held concurrently in Milano, closed with satisfactory results, reflecting a positive trend, a tangible sign of stability in a difficult global economic situation. Nearly 41,000 visitors from the trade and industry registered their attendance in these events. It is reported during the fairs, the pavilions buzzed not only with business opportunities, but also the desire to innovate. Lineapelle which also held concurrently showcased collections and projects for Spring-Summer 2025 season, attracted a huge number of foreign visitors, and opened up new horizons even in a particularly worrying market situation..

The 51st edition of the Spanish Fair, **FUTUMODA**-the International Exhibition of Leather, Components and Machinery for Footwear and Leather Goods concluded successfully, welcoming more number trade visitors and provided an opportunity for the industry to anticipate the upcoming trends and prepare for the challenges and opportunities for the future.

The 47th edition of **FIMEC**-the International Fair for Leather, Chemical products, Components, Machinery and Equipment for Footwear and Tanning, held in Brazil, witnessed an increased number over twenty thousand business visitors at this edition and received positive feedback both from the exhibitors and visitors.

It is reported the **APLF 2024** which returned to Hong Kong after a hiatus of five years, is also heading towards a successful close. The fair regarded as a top class leather exhibition offers bountiful opportunities to the global leather industry.

**Indian Leather** has completed **57 years** of its glorious publication and now enters into its **58th year** with this issue. I sincerely thank all our advertisers, subscribers, readers and well-wishers for their continuous support.



## **ILTA organised 5<sup>th</sup> Prof S.S. Dutta Memorial Lecture**

The 5<sup>th</sup> Prof. S.S. Dutta Memorial Lecture (the 10th Seminar since 2014 on the occasion of IILF at Chennai) was organized by the Southern Regional committee of Indian Leather Technologists Association (ILTA) in association with CSIR-CLRI, GCELT, ILPA and Indian Leather magazine as media partners at the Hall-A of Convention Center in the Chennai Trade Center campus on Friday the 2nd February'2024 during 37th India International Leather Fair (IILF-2024).

Mr. M. Abdul Wahab, Managing Director, K.H. Exports India Private Limited, Chennai, delivered the 5<sup>th</sup> Prof. S.S. Dutta Memorial Lecture titled **“Global Leather Sector: Revolutionizing Sustainability, Circularity and way forward”**. The dignitaries present on the occasion were : Dr. S. Rajamani, Vice-President, ILTA, Dr. B. Chandrasekaran, former Director, CSIR-CLRI, Dr. J. Raghava Rao, former Principal Scientist, CSIR-CLRI, Dr. R. Mohan, Secretary, Southern Region (ILTA) and Mr. Susanta Mallick, General Secretary, ILTA.

Shri. Susanta Mallick in his welcome address, remembered Prof. S.S. Dutta as one of the great teachers of Leather Technology in his student hood at GCELT. He stated that the book authored by Prof. S.S. Dutta titled **“An Introduction to the Principals of Leather Manufacture”** has been most popular among the different leather institutes throughout the country and ILTA has already printed 2500 copies of this book since its publication around 40 years ago. He remembered the contribution of the great legend Prof. Dutta to ILTA as well as the whole leather fraternity. He also mentioned in brief the activities of ILTA related to Indian Leather Fraternity.

Dr. J. Raghava Rao, in his address, sincerely remembered the contribution of Late Prof. S.S. Dutta as a teacher of leather technology during his student hood. He welcomed all the dignitaries present who responded ILTA to join hands with the activities and requested to play active role in development of modern Leather Industry.

Dr. B. Chandrasekaran, Chief Guest of the program in his lecture briefed, his experience related to technical growth of leather industry during his tenure as the Director of CLRI. He also recalled the measures started to be taken by CLRI by that time for sustainable and greener technology in leather industry. He especially mentioned that we should be more careful before intervention in the present debate on **Leather Vs Non - Leather**.

Thereafter, Prof. S.S. Dutta Memorial Medal for submitting their projects in M.Tech and B.Tech Leather and Leather Footwear Technology Examination - 2023 were presented. The awardees were: a) **Mr. Gokul Ganesh V, Mr. Mohammed Yaser M & Mr. Rudra Shekaran S**, B.Tech, Leather Technology, Anna University, Chennai, project titled **“Enhancing Nap Effect on Nubuck Leather with the help of Foaming Machine”**. b) **Mr. Jeyas Kandhan S**, M.Tech, Leather Technology, Anna University, Chennai, project titled **“Development of Collagen based Bioink from Raw Trimming Waste”**. c) **Mr. Niklesh C, M.Tech**, Footwear Engineering & Management, Anna University, Chennai, project titled **“Designing & Development of Hyper-Elastic Natural Fibre Material for Footwear”**. d) **Mr. Debjit Sen**, B.Tech, GCELT, Kolkata, project titled **“Isolation and Identification of Pigment causing Chrome Resistant Fungi from Wet Blue”**. e) **Mr. Premji Biswas**, M.Tech, Leather Technology, GCELT, Kolkata, project titled **“An Essential Study on Arsenic Contamination in Raw Goat Skin & Chromium-Tanned Leather”**.



The ILTA honoured the Best Export Award 2022-23 winners for their overall export performance. Names of the export houses : M/s. Feng Tay India Group, Chennai. M/s. Apache Footwear India Pvt. Ltd., Andhra Pradesh and M/s. TATA International Group, Chennai.

Dr. B. Chandrasekaran, joined hands to release the '**IILF-2024 Special Issue**' of Journal of Indian Leather Technologists' Association (JILTA), February'2024 and the first copy was handed over by Dr. Chandrasekaran to Mr. M. Abdul Wahab.

Dr. R. Mohan finally proposed the Vote of Thanks.

There were more than 100 participants at the event.

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### **ILTA organized webinar on 'LEATHER VS VEGAN'**

Indian Leather Technologists' Association organized a "Webinar" (On Zoom Platform) on 24<sup>th</sup> February, 2024, on the issue whether "**Vegan**" be considered as Leather. Mr. Gualtieri Gualberto, CEO, M/s. C & E Ltd. delivered a speech on the topic before a well-attended august audience. He was quite categorical in his speech and he held threadbare discussion on this burning issue.

He raised the issue before the audience to make a vehement protest against putting the "tag" of leather to be allowed for any kind of synthetic. He referred too that no European Country allow synthetic to be tagged as Synthetic Leather. He suggested to be united on the issue and put the matter to the government to do the needful to save the industry from further annihilation. He emphasized that "We are not killing animals for feeding our industry, on the contrary we are using dairy bi-product" as raw materials of our industry.

Many reputed industrialists and scholars from different institutes participated in the Q & A session of the webinar.

## Dr G Thyagarajan is no more

Dr Gopalakrishana Thyagarajn, former Director of the CSIR-Central Leather research Institute, passed away on 24th March, 2024. He was 90.

Dr G Thyagarajan, M SC.Ph.D., F.R.S.C., F.I.C was a senior most of the 41 directors of CSIR since 1985. After he had taken charge as director of CLRI, in 1984, he felt that CLRI with its highly qualified scientists and ideal setting, should also branch out into other areas of research too. Many conferences organised by Indian and world bodies were held in CLRI during his time. Dr



Thyagarajan added a most modern auditorium and obtained many sophisticated machines and equipments for the benefit of leather goods manufacturers. Footwear Technology was given special focus. It may be said that these steps were possible due to his dynamic personality and his standing with CSIR. He had initiated many surveys and some of which were considered as mother surveys for many branches of the industry.

Dr Thyagarajan had the distinction of acting as the Adviser to the Secretary, Commonwealth Science Council and Science Adviser to the Secretary General, Commonwealth Secretariat, U.K. After completing the term and also an extension, he returned to CLRI to pick up the links again. He was selected from out of 50 commonwealth countries to this coveted position.

He is known to take on-the-spot decisions. Efficiency, quick decisions, correct assessment, excellent public relations, aristocratic thinking and introducing 'Class' in his actions were some of his qualities which endeared him to one and all.

Some of the other prestigious positions he held include: UNDP National Expert to CSIR-CLRI, Chairman of Research Council of CFTRI, NISCOM, NEIST & CIMFR, Scientific Secretary, COSTED, International Council for Science, Chairman, Supreme Court Monitoring Committee and Hazardous Management to name a few.

*Indian Leather* conveys its heartfelt condolences to the members of the bereaved family

## **India to have its own footwear sizing system**

India will get its own Indian footwear sizing system by 2025. The footwear will be certified by BIS, and a total of 1.25 lakh samples from 79 districts across the country have been collected by the Central Leather Research Institute (CLRI) towards the same.

The report has been submitted to the BIS and trials are to begin after the approval. Dr N Kalaiselvi, Director General of the Council of Scientific and Industrial Research (CSIR) and Secretary of the Department of Scientific and Industrial Research (DSIR), on 20th February, 2024, said that CLRI has been given the responsibility to work on the Indian system of footwear sizing and it should be implemented by 2025. The user trials will be done for about one year on about 10,000 people and monitored for the 5 - 55 age group. The customisation of the sizing system would help Indians have a much more comfortable footwear as it would not just consider the length but also the width of the foot for sizing. The Director of CLRI, K J Sreeram said that Indians have been wearing slightly longer footwear than required for them because of the foreign based sizing system. "We are bringing out the customisation for Indians, which will help to improve the comfort for them. For trials, we are planning to work with mould manufacturers and then join hands with companies for the same. We will be doing user based trials for about 10,000 people and monitor them for a year. We should be able to launch the Indian footwear sizing system by 2025,"she said.

Talking about the adaptability of the Indian system by other countries, Dr N Kalaiselvi said that India is the largest population and adapting the Indian sizing system would also boost the online sales of other brands. "The footwear will be certified by BIS to aid in quality control, testing of raw laboratories and choose the right raw materials. The 3D printing technology is also being used for the same," he said.



In another initiative, CLRI is also bringing out footwear for healthcare, to ensure that comfortable footwear is made available for the people suffering from various illnesses, particularly women. The footwear for healthcare is being designed with support from doctors, psychotherapists, diabetic care, gynecologists and other health experts. "The testing of footwear is also being done for children particularly, Ankle foot orthosis, which is a orthopaedic technology device to design corrective footwear for kids born with disabilities such as cerebral palsy. The department is also looking at designing footwear for the differently abled, that also can also assist in bringing out movement in the foot," said Dr Kalaiselvi. (CSIR-NIIST)

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## **Kozhikode to become the footwear hub of India**

With marked improvement in the export of footwears, Kozhikode has risen up as the new hub of footwear industry, scaling new heights in 2023. According to the data available, the exports saw a 38% hike in the last three months of 2023, compared to the previous year, in which 71 containers of footwear had been exported from Kozhikode in the last three months.

Despite the shutdown of almost half of 150 shops in Kozhikode and its nearby areas during Covid, this hike in exports is a new hope in the footwear industry. The report on exports was prepared by an expert committee in the Kerala Exports Forum. Exports are the highest to countries like UAE, Saudi Arabia, Kuwait, Bahrain, Qatar and Oman. These export numbers are a blessing to the central government's plan to make Kozhikode the footwear hub of India.

The Chinese footwear industry is putting forward a huge competition in the market. Due to this competition, there has not been a serious increase in footwear prices in the last 10 years", says K M Hameed Ali, Kerala Exports Forum President and VKC Group Director. Export numbers can still see an increase with improved footwear designs, commented M S Raunaq, Assistant Professor, Economics, University of Calicut, in his report.

# Introduction to Leather Industry

- Vasan Suri

A Passionate Leather Lover & Professional

*(Continued from February 2024 issue...)*



Everyone have equal right to the market share. Never spread negative sentiments or wrong propoganda to gain a market share is the advice to all other products, why piggy ride on the term "leather".

Which came first?

This was always an interesting question?

The Egg or the chicken??

In the case, of the tanning industry, it can be clearly seen that, the leather industries area get earmarked and industries whether small or big comes up. Later, the area gets populated and more residential plots gets developed around the specifically earmarked leather processing tanneries and they start complaining.

The leather industry always gets pulled up to have more cleaner methods of production reducing the pollution of water and air and the industry always comes up with a solution and keeps improving.

As always been established that, Leather Industry is purely an upcycling industry and that too from the remains of the meat industry.

The following questions comes up:

1. Will it be possible to make the population of the World to stop, eating meat?
2. If there is no leather industry to upcycle the remains of the meat industry, how about the disposal of the hides & skins.

Presenting here some pics to prove that, the skins and hides form 10-12% of the weight of the animal maximum and the realisation cost is just 5% of the value of the animal.

Further, please understand the other beneficial parts that are taken out from the carcass of the animal after removal of meat.

Also, you will find pictures to show what happens with bull & ox are left out on the roads which become unproductive to the farmers.

The animals get on to the road and you find traffic either side and imagine, if one of them gets crazy. You can see the Ox brushing up the vehicle from the side, as well. This picture is from one of the prime cities not from any village.

It is important to understand that, all these are part of civilization and culture and we need to keep evolving and improving in our methods of working rather than showing a negative image of an industry.

It is unfortunate that, every other plastic based or fossil based products want to ride on the back of the term **"leather"** and create negative sentiments about the other Industry. Shameful, isn't it.

Leather is a natural product and Leather industry is an upcycling industry. It is purely a gift of Nature to the mankind.

Leather breathes, other products don't.

The slogan is very clear:

**"ENGINEERING LIFE TO THE LIFELESS".**

The leather industry was always ready for the challenge and responded well to the new norms and conditions.

From my knowledge of the Leather Industry, which was in the early 80's, the structure for exports were as under:

1. El tanned leather exports were on with some quota. Cow Calf, Cow Hides, Buff Calf, Sole Leather, Goat Stout for Japan etc.,
2. Russia was the biggest buyer of Goat Skins in Resin finishes and Shoe suedes for footwear.
3. TC (Terracotta) exports was huge to Italy.
4. Chrome crust in Sheep & Goat was a big business.



From the above, it could be seen that, it was equal %, with Vegetable tanning and chrome tanning. Vegetable tanning disposal of effluent was lesser compared to chrome tanning where the outlet of water was more. Moreover, the rapid tanning system of chrome tanning was the catch and many tanneries got converted from vegetable tanning to chrome tanning.

It was a big shift from 45-60 days tanning to 7-8 days tanning. The demand was there and the pollution increased. Pollution control laws were being laid down as the chrome tanning was more polluting and in higher volumes compared to vegetable tanning.

Who is to be blamed? The fashion industry is the driver and the leather industry were adapting to all the changes and requirements.

The first treatment plant of the tannery (South East Tanning Company), shows the vision of the tanning industry to prepare for the future. All credits to late Shri. Hafizur Rahman Saheb. Personally, I could gain knowledge in handling the waste effluent water, as I was heading the tannery (1987-90) with the best in-house effluent treatment plant (from Raw to Finish) with in-house lab, of those days. The one of its kind.

During the same period, the importance for common treatment plant was well established and Vaniyambadi was the first to set up the common effluent treatment plant.

In 1991, four of the cabinet ministers from Maharashtra had visited Vaniyambadi and Ambur to see the common effluent treatment plant (CETP). Mr. Sushil Kumar Shinde and late Mr. Vilasrao Deshmukh had visited with two more ministers. In the year 1996, the honourable Courts came down heavily on the erring tanneries and many tanneries were shut down and stringent norms were made for the existing tanneries.

Industry kept evolving with new type of leathers and finishes and the tanneries kept themselves up with the changing requirements and regulations, ensuring that, CETP came up at every leather manufacturing sector, all over the Country.

Sharing some of the images of CETP of various leather clusters.



Important for the young generation to understand the speed in which the tanneries have responded to the challenges and they should not get carried away by the wrong propoganda.

Unawareness of an industry is ignorance. The lack of knowledge cannot be preached as "Beware". It is important to dispel the myth that, Leather is a dangerous and polluting industry. The awareness on water pollution and air pollution kept growing over the years and leather industry, have been working towards a green and cleaner technology.

Today, we have many tanneries in India having their own effluent treatment plants apart from the common effluent treatment plants (CETP). There are tanneries which convert their wastes in to Bio-gas and use it for their own kitchen and canteen which provides food for

all of its workers & staffs. There are responsible tanneries who have created water pond for the villages close to them, to ensure that, whatever water is used by them for their tannery from ground water, is given back to the society.

Rain water harvesting, (proper utilisation of the rain water, which otherwise would be wasted) solar panels installation and power generation (which reduces the consumption of electricity in the industry), bricks made from the sludges of the effluent treatment plant for construction are some of the socially contributed efforts by the Leather Industry.

There are tanneries which have made strict rules to discourage individual traveling by cars and motorcycles, adding up to the global warming and air pollution, by providing bus for the transport for all of their staffs and workers.

This also helps in saving of the fossil fuel. Every rupee saved is a rupee earned. All these steps are towards creating a sustainable industry. Factories are constructed to have more natural light reducing the need for electric bulbs in the day time.

Reduction of water in every area of tanning is a major step towards sustainability. Lesser the input of water, lesser the treatment costs and outlet of water. Water based finishes are coming in to play in a big way to avoid solvents and air pollution. Health care for the workers, eye washing stations are some of the socio-economic situations well addressed by the tanneries.

The leather industry though, have been taking all steps towards a eco-friendly atmosphere, have not been vocal about it. This cannot be taken as an advantage to demean a industry, in total.

The due credit should be given to the Leather Industry which have taken all steps to over the years to provide a cleaner technology and walk towards sustainable future.

Remember, the leather industry is doing a great service by upcycling the wastes in to luxury, comfortable and fashionable products.





Leather is a Natural product which is sustainable, Bio-degradable and compostable. The Leather Industry with the active support of the Chemical manufacturers have been able to bring in chemicals to address the need of the hour. In India, we were all specialised in EI (East India) vegetable tanning method to tan the leathers.

Basic Chromium Sulphate was brought in by the Britishers for rapid tanning and shift from the Vegetable tanning to chrome tanning, took place. Over the years, International laws and restrictions have been imposed on various types of Chemicals time and again and the Leather Industry have handled all those changing requirements and followed the restrictions strictly.

It all started with ban of Pentachloro phenol (PCP) 1987, followed by Azo dyes, Formaldehyde, Chrome VI, Chrome VI ageing, FOC, Aldehyde, Phenols etc., till today have been banned or restrictions imposed regularly and the Leather Industry have addressed all the situation.

Again, the shift to Vegetable tanning using Vegetable tannins made from Natural trees and bark, totally Chrome free technology (using sulfone) then on to Metal free tanning and getting on to ecological leather. At every stage, the leather industry adapted to all the requirements of the International community.

The tanning industry quickly responded to avoid all the banned and harmful chemicals in their tanning methods over the years to ensure a sustainable future of the Leather Industry. As the civilisation keeps growing, the demand for improvements at every sector is implemented and the Leather Industry is open to adaptation.

Being an upcycling industry of the remains of the meat industry and with our motto, "**Engineering life to the lifeless**", with more eco-friendly tanning systems, the leather industry provides the best Natural product with luxury, fashion, durability and ensuring sustainability.

Sharing the images of Chrome free tanning with sulfone & vegetable tannins at different stages of production.



*Leather Journey continues....*

# Seize the opportunities of renewable chemistry



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If you would like more information about Stahl Ympact® or how we can support you to embrace the opportunities of an evolving leather industry, visit [stahl.com](http://stahl.com) or get in touch with us at [communications@stahl.com](mailto:communications@stahl.com).

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# Indian Leather

Digest of Leather News  
ESTD: 1967



**INDIAN LEATHER** is a Digest of leather News Published on 8th of every month. Established in 1967 by Late Sri S.Sankaran, it has successfully completed 57 years of continuous publications and is in its 58th year. It has a wide readership and covers many important news in Leather, Footwear and Allied Industries. Indian Leather Publishes regularly the pre and post fair news/reports of all the major International Leather Fairs and events. It covers the burning problems of the industry.

**INDIAN LEATHER** takes part in International Leather Fairs held in India and copies are distributed to the participants and distinguished visitors of the fair, thus reaching the cream of the industry and trade.

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## **POSITIVE BALANCE FOR FASHION FAIRS: MICAM MILANO, MIPEL, THE ONE MILANO AND MILANO FASHION&JEWELS**

### **CLOSE WITH 40,821 TRADE VISITORS FROM 150 COUNTRIES**

***The watchword is 'synergy': networking by looking to  
the future and focusing on the new generations***

The four events dedicated to fashion and accessories that took place simultaneously at Fieramilano (Rho) to launch the trends for the coming seasons came to a satisfactory close.

The closing figures, thanks to incoming trade visitors from abroad, reflect a positive trend, a tangible sign of stability in a difficult economic moment.

**MICAM Milano, MIPEL, The One Milano and Milano Fashion&Jewels** welcomed a total of 40,821 trade visitors, 45% of whom came from abroad. In particular, from the European Union, France, Germany, Spain and Greece recorded the best performances; from non-European markets positive results came from Japan, China, Kazakhstan and the United Kingdom. To complete the chain logic of the exhibition offer, Lineapelle and Simac Tanning Tech are also currently taking place and will end tomorrow.







courtesy : themicam

Once again, the will to work as a system and to present themselves to the market together won out: holding fairs concurrently is, in fact, not only an aspect that strengthens individual events, by allowing them to enjoy wider visibility, but above all represents a tool to stimulate international demand, offering buyers and dealers from all over the world a unique opportunity to grasp so many different aspects of the world of accessories at one time.

To represent this mutual benefit, the events came up with the English neologism *Greatify*, which means to make big and stronger.

Inaugurating the events was the Minister for Business and Made in Italy, Adolfo Urso, a presence that further underlined the importance of trade fairs as a tool for the promotion and internationalisation of Italian companies.

During the fairs, the pavilions buzzed not only with business opportunities but also the desire to innovate: in all the sectors represented, in fact, strong efforts are being made to renew production processes with the introduction of digitalisation and the latest technologies. But this forward thrust does not nullify, indeed it strengthens, a tradition rooted in craftsmanship, which is still alive in all the sectors represented by the events.

Another important example of shared intentions is that of training: workshops and educational and informative moments were organised at all the events, in many cases involving young people, who represent the future, and schools, an indispensable bridge to the world of work for the new generations.

Now that this edition is over, we are already looking ahead to next September, again with a view to the supply chain and system.



## **The 51st edition of FUTURMODA closes its doors with over 5,000 visitors.**

- *Exhibitors have received a large number of visitors at their stands. 95% of them have confirmed their interest in participating in the next edition. Innovation has been a key focus, both in machinery and in textile materials, leathers, and skins. Sustainability and eco-friendly products have been prominently featured in the Green Planet Space.*
- *Among the highlights of this edition were innovations in machinery, including digital printers capable of directly decorating footwear, and ergonomic developments such as heel counters designed to facilitate footwear without the need to bend down.*

The 51st edition of FUTURMODA, the International Exhibition of Leather, Components, and Machinery for Footwear and Leather Goods, held on 13th and 14th March at the Alicante Fair Institution (IFA), concluded with notable success. This biennial event has once again been a key meeting point for the industry, attracting 4,883 visitors.

Satisfaction among exhibitors has been more than notable, with 95% of them confirming their interest in participating in the next edition of FUTURMODA. This edition has stood out for its innovation and for offering a glimpse into the future of fashion and sustainability.

### **Innovation and sustainability: Pillars of FUTURMODA**

The fair has stood out not only for the quantity of visitors and the satisfaction of the exhibitors but also for the quality and innovation of the proposals presented. Among the novelties, innovations in machinery have stood out, including digital printers capable of directly decorating footwear, and ergonomic developments such as heel counters designed to facilitate footwear without the need to bend down.









The commitment to sustainability has been evident in the Green Planet space, an initiative that promotes natural, ecological, and recycled materials. This year, the Green Planet has been a meeting point for those looking to incorporate more environmentally friendly practices into their production processes. Visitors have been able to explore a wide range of innovative materials, from recycled fabrics and leathers to soles designed with sustainability criteria.

### **Expert Forum and international attraction**

The Expert Forum, with its talks and debates, has been another highlight of the fair, offering valuable insights into the latest trends and challenges in the sector. The sessions have been very well attended, reflecting the interest of professionals in staying up-to-date with sectoral innovations.

Collaboration with international IVACE has allowed to attract more than a dozen internationally renowned companies, demonstrating the scope and importance of FUTURMODA on the global stage. Journalists from specialized magazines worldwide have covered the event, which has seen participants from Spain, France, Portugal, Italy, Germany, Turkey, Indonesia, and China, consolidating its position as an international reference event in the sector.

### **Presentation of Autumn-Winter 2025-26 Trends**

The Spanish Association of Components and Machinery for Footwear (AEC) already anticipates the next important event for the sector: the presentation of fashion trends for the autumn-winter 2025-26 season, which will take place on March 26 at 7:00 p.m. This event will undoubtedly be an excellent opportunity to anticipate upcoming trends and prepare for the challenges and opportunities of the future.

## **LINEAPELLE 103: EDITION FULL OF VITALITY AND CONTENT**

- **25,376 TRADE OPERATORS FOR AN EXHIBITION GROWING COMPARED TO THE TWO PREVIOUS EDITIONS**

Despite the complex economic situation, LINEAPELLE 103, held at Fiera Milano Rho from 20 to 22 February 2024, celebrates the conclusion of a particularly vital edition that opens up glimmers of confidence for the leather, luxury, and design supply chain.

Twenty-five thousand three hundred seventy-six sector operators (up on the February and September 2023 editions) animated with their interest and search for novelty the stands of the 1,167 exhibitors at LINEAPELLE who showcased collections and projects (reference season: Spring-Summer 2025) characterised by strong innovative research and a clear propensity for diversification of markets, proposals, and destinations.

The influx of foreign operators was significant (39% of the total), with a prevalence of buyers from France, Spain, Germany, Great Britain, Turkey, the United States, and China.

The vitality of LINEAPELLE 103 and its ability to open up new horizons even in a particularly worrying market moment, found expression and (great) interest in all the contents that enriched the exhibition experience, starting with the success of the six Lineapelle Designers Edition fashion shows.

Very positive feedback also for the first edition of Lineapelle Interiors / Leather Duets, a business culture exhibition that staged a sequence of installations, each of which was represented by an exclusive leather design project shared between a made-in-Italy leather manufacturer and a furniture company.

There was also great involvement for In The Making Atto II (an interconnected and multidisciplinary space where visitors to LINEAPELLE were able to take part in a series of craft workshops using leather) and for the second edition of the Science Based Fashion Talks, opportunities for debate and sharing aimed at discovering and defining green strategies for the entire supply chain.

## 47<sup>th</sup> Fimec reveals Brazil as a protagonist in the leather-footwear sector on the world stage

- Presence of international visitors and exhibitors marked this year's edition
- Recorded the attendance of 20 thousand visitors



The 47th edition of Fimec, (the International Fair for Leather, Chemical Products, Components, Machinery and Equipment for Footwear and Tanneries) was organized by Fenac Experiences Conectam, and was presented by Sicredi Pioneira. The event was sponsored by **Covestro, Transduarte, Ambiente Verde Indústria and Henkel** and also had the support from Abicalçados, Abqtic, Abrameq, ACI-NH/CB/EV/DI, Aicsul, Assintecal, CICB, IBTeC and Sebrae/RS. Fimec 2024 took place from March 12th to 14th, at Fenac, in Novo Hamburgo/RS (Brazil).

Over the last three days, the fair was the stage for innovations and business in the footwear leather sector, bringing together visitors from all over the world. The fair, which came to an end on 14th March 2024 has brought together several companies and professionals from different countries in search of news, technology and business partnerships in the Brazilian and Latin American market. There were around 20 thousand visitors who passed through the Fenac pavilions, in Novo Hamburgo/RS, to check out solutions in leather and skins, chemicals, components, machines and technology.

During a press conference that took place in the early afternoon of this last day, the CEO of Fenac, Márcio Jung, joined representatives from Pacto Calçadista and some entities linked to the cluster to evaluate Fimec 2024 and the sector. “We delivered a great fair. Well organized and within the expectations of exhibitors and visitors”, he pointed out. “It is important to highlight that we managed to bring in a very qualified audience, including an intense visitation from foreigners”. Jung also recalled that this massive presence of international visitors is the result of Fenac's work over the last few years, which has intensified its presence and visitation at fairs in neighboring countries. “An example of this is Argentina, a country with which we managed to re-establish a relationship and bilateral trade”, he detailed.

Furthermore, when talking about the presence of Asian companies as exhibitors at this year's Fimec, the CEO highlighted that the Brazilian leather-footwear sector naturally attracts attention from the East. **“We produce around 900 million pairs of shoes per year, so Brazil is the center of footwear production in Latin America.** Fimec, as an international fair, is a platform that allows the eastern market to find and sell to international Latin American customers,” he defined. Furthermore, Jung highlighted that the two exhibitors with the largest dimensions this year were Italian



companies. “This reinforces Brazil's leading role in the leather-footwear sector in the eyes of the world market”, he assessed.

The speech was complemented by Marlos Schmidt, president of the Fenac Board of Directors. “Outside Asia, we are the main footwear manufacturer, so it is natural that global suppliers see Brazil as one of the main hubs for the sector.

During the press conference, the Footwear Pact was presented, a movement made official in January this year that was created from a leadership development program initiated by SEBRAE-RS. The project focuses on the union, collaboration and connection of all agents in the footwear cluster of Vales do Sinos and Paranhana.

In line with this, the president of Abrameq (Brazilian Association of Machinery and Equipment Industries for the Leather, Footwear and Related Sectors) and also a member of the Pact, André da Rocha, emphasized that: “it is necessary to publicize our ability to make good products and serve the market effectively.”

Fimec 2024 brought together around 400 exhibitors, exceeding 10 thousand m<sup>2</sup> of exhibition area. The presence of a qualified and decision-making audience was highlighted among the participating brands. BASF, a company based in São Paulo, has participated in Fimec for years and was satisfied with this edition. “We noticed a qualified presence, as customers who are decision makers and companies interested in innovation visited our stand”, says Fernando Barbosa, vice-president of materials performance.

A Fimec participant since 2019, Dacarto, from Osasco/SP, explained that it recently returned to the leather-footwear sector. “This year's fair was much stronger and more focused. The public who visited Fimec really came in search of business, opportunities, technology and sustainability, which is one of the themes we presented last year.

## **Fábrica Conceito attracts attention**

The president of IBTeC (Brazilian Institute of Leather, Footwear and Artifacts Technology), Valdir Soldi, highlighted the evolution process of Fábrica Conceito. The project presented the production of shoes and bags within the fair's pavilions. "The production at Fábrica Conceito is something that has evolved a lot and attracts the eyes of visitors. This year we had the production of bags for the first time and the idea is to evolve every year", he contextualized.

The 48th Fimec (International Fair of Leathers, Chemical Products, Components, Machinery and Equipment for Footwear and Tanneries) will take place from March 18th to 20th, from 1pm to 8pm, in the Fenac pavilions, in New Hamburg/RS.

More information about the fair on the website: [www.fimec.com.br](http://www.fimec.com.br).

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## **SIMAC TANNING TECH 2024: THE GOLD EDITION (17-19, September 2024)**

**Simac Tanning Tech celebrates its 50th anniversary  
with a special edition.**

Simac Tanning Tech, the international exhibition of machines and technologies for footwear, leather goods and tanning industries, celebrates its 50th anniversary with a special edition to be held in Rho Fiera Milano in Halls 14 & 18 **from 17 to 19 September 2024**.

The event, which will bring together **more than 300 exhibitors from around the world**, will be an opportunity to celebrate the past and look to the future of an ever-evolving industry. Many expressions of interest have been received in recent months from companies that have never attended the exhibition. In addition, numerous visitors and delegations of international buyers are expected thanks to the support of **ICE-Agenzia**.

The fair, organised by **Assomac**, will feature a series of events and exhibitions that will explore the latest trends in the leather industry, technological innovations and environmental challenges.

Among the main events, currently being defined, are: an exhibition on leather technology that will retrace the history of the sector; networking initiatives and workshops as an opportunity for operators in the sector to meet and exchange ideas, focus on specific topics such as sustainability, creativity and technology, and finally the highlighting of the best technological innovations.

The fair will also be an opportunity to foster networking among industry players. Meetings, conferences and seminars will be organised to discuss the latest innovations and share experiences.

*"We are proud to celebrate 50 years of Simac Tanning Tech," said **Maria Vittoria Brustia**, President of Assomac and Simac Tanning Tech. "This exhibition is a reference point for the footwear, leather goods and tanning technology sector and we are convinced that this special edition will be a unique opportunity for discussion and sharing."*

On the occasion of the opening of registration for Simac Tanning Tech, the world's leading trade fair dedicated to technologies for the footwear, leather goods and tanning industries, the new official logo was unveiled to celebrate the 50th anniversary of the event.



### **A modern and eye-catching design**

The modern and eye-catching design retains the iconic elements of the original logo. The number "50" stands out in the foreground, highlighting the importance of this historic milestone for the fair.

### **A special edition full of new features**

The new edition of Simac Tanning Tech is set to celebrate 50 years with a special edition of the world's leading trade fair for technology and machinery for the footwear, tanning and leather goods industries.

This special occasion will contain a number of important innovations:

- Enhancement of technological innovations presented at the fair.

- Enhanced networking initiatives and celebration of SIMAC TANNING TECH's 50th anniversary.
- Setting up of a technology exhibition that will trace the history of the industry-a fascinating journey on the evolution of the supply chain and its future.
- New opportunities for booth customization.

**Registration opened on 18<sup>th</sup> March, 2024.**



### **Assomac**

<https://assomac.it/en/>

National Association of manufacturers of technologies for Footwear, Leathergoods and Tanning, in Confindustria field, represents Italian footwear and tanning machinery, protecting interests of associated companies and promoting their activities on a national and international level. The main objective of the Association is the elaboration of sectorial politics able to enrich and develop the Italian know-how, promoting Associated companies.

For more information, please visit: [www.simactanningtech.it](http://www.simactanningtech.it)



# "Making Leather : An overview of Manufacture"



**Mr Richard P Daniels**, one of the renowned leather technologists, has recently come out with a study **"Making Leather: an overview of manufacture"** intended for people entering the leather sector who aspire to become technicians. This study is based on his rich technical experience from training (basic to MSc level and counterpart both directly also distance learning modules that he has authored plus numerous profiles/reports and field works etc.etc).. This was released at the IULTCS Congress in Ethiopia and is recommended by UNIDO, IULTCS and SLTC (going on their websites).

It contains information for those who need more than the most basic understanding of commercial leather manufacture. It follows the processes and operations used, and their purposes for making leather from bovine hides, sheep and goat skins. This study is intended for self-training and distance learning within the global leather sector. This great work is divided into 10 parts comprising 30,000 words in a condensed format and 300 integrated technical images/diagrams. It is essentially a self learning package and designed for use by smart phone, tablet and computer. It suits display and use by suitably qualified staff within formal education for discussion and expansion.

The author has gracefully made this comprehensive study available to readers at free of cost in our website. It is about making leather!

Please visit our website:

[www.indianleathermagazine.com](http://www.indianleathermagazine.com)

and click "Articles Tab" to view this great work.

## **Former Wolverine Worldwide VP, Kerry Brozyna, Appointed President of Leather & Hide Council of America**



- Manufacturing and supply chain expertise central key as leather charts a sustainable future
- Life Cycle Assessment will set out leathers low carbon credentials says Brozyna

The Leather & Hide Council of America (L&HCA) has appointed Kerry Brozyna as Acting President, effective June 2024. He brings significant experience in brands, manufacturing and international supply chain management as he moves from Wolverine Worldwide (WWW), where he served as Vice President and General Manager.

Brozyna, currently serving as co-chair on the board of L&HCA, takes over from Stephen Sothmann, who served as L&HCA President for twelve years and who now joins DTB AgriTrade and follows an open selection process conducted by the L&HCA executive committee.

In his new role, Brozyna will oversee the strategic direction of L&HCA, both as the voice of a U.S. industry worth more than \$1 billion per annum and exporting some 95% percent of its cattle hides and wet blue leather products. Central to this will be the L&HCAs groundbreaking Industry Sustainability Program that brings together partners from across the supply chain to promote best practice in manufacturing and championing the use of sustainable and high-quality leather in international markets.

Key to this will be the publication of the first comprehensive and independent Life Cycle Assessment (LCA) of U.S. cowhide production due to be released at the Economist Sustainability Summit in London in March 2024. The LCA is a data driven study that is expected to

show a significantly smaller environmental footprint of leather than previous models. Brozyna commented:

*"The textile industry is at a crossroads – as is the leather industry – where a firm commitment is required to solutions that are as good for the planet as they are for business. We must protect and grow international markets and educate stakeholders and consumers as to why slow style, for example, is preferable to fast fashion."*

*"I am excited to support the industry in its rapid evolution and to capitalize on the opportunity for leather as a unique industry that consumes, rather than creates, waste. We provide answers to many challenges facing the textile industry and our planet today."*

Chad Robertson, Chair, Leather and Hide Council of America, added:

*"Kerry brings real commercial know-how, brand and consumer insight and understanding of the leather industry. As such he is ideally positioned to lead the L&HCA as it works to influence the international industry and engage our commercial and consumer audiences."*

The L&HCA was established to promote the U.S. leather industry and represents the interests of 75 member companies across the leather supply chain. A full-service trade association, L&HCA provides its members with government, public relations and international trade assistance and support.

The association is also a co-operator organization under the U.S. Department of Agriculture's foreign market development programs, furthering opportunities for U.S. agricultural exports.

For more information visit [www.usleather.org](http://www.usleather.org).



## Portuguese footwear components focus on sustainability

Under the Bioshoes4All project, the Portuguese footwear components industry is investing heavily in the development of a new generation of sustainable products. Meet some of them

At the latest edition of the Lineapelle trade fair in Milan, **the Portuguese footwear components industry presented several sustainable solutions** developed as part of the Bioshoes4all project, supported by the PRR. “We’re developing **highly differentiated and technologically advanced products** because we believe that if Portugal wants to be at the forefront, it has to make **significant investments to become a major international benchmark**”, summed up Paulo Gonçalves, spokesperson of the Portuguese Footwear, Components, Leather Goods Manufacturers’ Association (APICCAPS).

### Aloft’s E-Blast attracts foreign investment

**E-blast, the gas-expanded polymer** produced by Aloft in its Vila Conde factory and developed under the BioShoes4All project, is attracting interest from major international sports footwear brands, which are considering setting up in the country to be closer to the source of their soles.

And Aloft itself is transforming **as it prepares to take the plunge and produce injected footwear from 2025**. It has already taken its first steps in this field by partnering with Decathlon, a multinational company with which it has developed “the world’s first sneakers made entirely without the use of any type of glue”. **The ambition is to move from soles to manufacture highly technical sports products.**

The **first E-Blast soles**, an innovative technology presented by Aloft at the September edition of Lineapelle, are now being produced 24 hours a day, seven days a week. The result is **ultra-light, sustainable soles with reduced labour requirements**, a product

that Pedro Castro, Aloft's CEO, hopes will more than double the company's turnover.

The E-Blast sole produced by Aloft weighs around 110 to 120 grams, which compares to the usual 200 grams, but is still more than 80 grams that Chinese producers manage to obtain. Pedro Castro guarantees that **safety is a “non-negotiable factor”**. “The rules in China still allow the soles to be put in hyperbaric chambers at 300 bar, which is forbidden in Europe. Here, we achieve almost the same performance, **but with environmentally friendly and 100% safe manufacturing processes**. He emphasises that we don't compromise on the hygiene and safety of those who work with us”.

### **Atlanta and its bioplastics**

**The search for new more ecological and sustainable raw materials is a constant concern** for Atlanta, which has several ongoing research products in partnership with organisations in the national scientific system, such as the University of Minho and the Faculty of Engineering at the University of Porto, among others. And **bioplastics**, soles made from bio-based natural fibres such as cork, sugar cane, coffee grounds or rice husks, among others, **are the resulting innovations that were particularly highlighted in Milan**.

João Carvalho, from Atlanta's commercial team, explained that the company has managed to **develop an 85% plant-based rubber (SBR) in-house**, replacing most of the fossil-based materials with plant compounds. Along with recycled and biodegradable materials, **bioplastics reinforce Atlanta's commitment to sustainability**, a commitment that has been demonstrated over the years.

**The Lixa-based company is preparing to double its solar surface area in the next two to three years** in order to become self-sufficient. Of the three million pairs of soles it produces each year, 30% are already made from sustainable materials.

### **Procalçado launches 100% compostable soles**

**BioCir@flex, the 100% compostable soles developed by Balena in collaboration with For Ever**, the components brand of



the Procalçado Group, were the latest innovation presented by the Portuguese company in Milan. And Balena's technicians were on hand at Lineapelle to explain the paradigm shift that this innovation represents. “The soles of traditional shoes pose recycling challenges, often ending up in landfill sites”, explains Balena on its website, adding that **BioCir@flex is made of a “robust bioplastic material”, making it “fully compostable and rich in bio-based content”, thus reducing the environmental impact of footwear production.**

Committed to presenting a wide range of products that guarantee endless possibilities for its customers, **For Ever also introduced Infinity Foam technology**, which uses “nitrogen injection”, to create “high-performance and lightweight” soles with “infinite recyclability”, as well as 100% natural rubber soles, among other innovations.

Procalçado, which will celebrate its fiftieth anniversary in 2023, started out making soles and has since evolved into a manufacturer of injected footwear, with the Wock brand in the safety segment and the Lemon Jelly brand in the fashion segment. **Sustainability is one of the Group's main concerns, and it aims to achieve carbon neutrality by 2025.**

### **Vapesol manufactures zero-waste EVA**

Since 2022, Vapesol has had a production unit dedicated exclusively to EVA soles and is now “the world's first zero-waste company” in this manufacturing process. In Italy, this was one of the major innovations presented to customers as part of the FAIST project, which involves 45 organisations and an estimated total investment of 60 million euros.

The project resulted from a partnership with Minho University's Faculty of Engineering, which showed that it is possible to reverse the expansion of EVA so that it can be reintegrated into new soles. Developed with an Italian plastics company with extensive experience in the circular economy, **the process has been certified and patented under the EvaPowder brand.** It allows up to 20% of EVA waste to be recycled, which is more than the 11% waste that Vapesol's normal production generates. Décio Pereira, CEO of the

Felgueiras company, guarantees that it is currently “the first and only company in the world to have zero EVA waste”.

As a supplier of soles to major luxury brands, **Vapesol believes that the recyclability of EVA made possible by the new technology will appeal to its customers**, all of whom are increasingly looking to launch new lines of sustainable products. And with this investment, Vapesol is no longer sending 50 tonnes of waste to landfill, for which it paid around 200,000 euros. “Rubbish is the new luxury”, argues Décio Pereira.

### **Dias Ruivo presents biodegradable leathers**

Another BioShoes4All partner is Dias Ruivo. At Lineapelle, the company **presented its biodegradable leathers, tanned without the use of heavy metals such as chromium**. Ana Dias, the fourth generation of her family to work in the tanning business, admits that vegetable tanning is still a product with limitations, especially in terms of lightfastness.

Turning bovine leather into a fashionable product for shoes, but also for leather goods, clothing and even furniture, **is the result of generations of experience and continuous investment in research and development**. A business that depends on human consumption, giving new life to the hides of animals slaughtered for the food industry and keeping them out of landfills.

“Skin is always biodegradable, it’s just a matter of time. If you don’t use heavy metals, they biodegrade faster, and that’s what we want. But vegetable tanning has many limitations in terms of colour-fastness to light, **so we had to evolve the formula and find a way to remove the heavy metals from the process while maintaining the softness of the leather and the resistance of the colour**”, explains Ana Dias.

Dias Ruivo has been working on this project since 2022 and is already seeing results, but there is still a long way to go. **The aim is to make these skins lighter**. “Although they are light skins, they have an effective weight, and it would be great if we could reduce their density by 30%, even to ensure a wider range of applications”, she adds.

*Source: portugueseshoes.pt*



## Footwear components grow by 13.6%

The footwear components sector continues its growth and expansion into foreign markets. In 2023, the sector exported components worth 73 million euros, an increase of 13.6% compared to the previous year.

By markets, there was an increase of 4.7% in Germany to 16.5 million euros and 43% in France to 16 million euros. In Spain, however, the sector recorded a decline of 19% to 7 million euros. APICCAPS is carrying out a series of initiatives to promote the cluster in



international markets. After a transversal image campaign to promote leather goods and an action focused on children's footwear, "Portuguese Shoes Cluster" is the slogan of a new campaign that aims to present the components sector as strategic for the affirmation of the Portuguese footwear industry abroad.

For Paulo Ribeiro, "one of the main competitive advantages of the industry is precisely the fact that within a 50-square-kilometre radius of the city of Porto, there is a wide variety of components and services available to footwear companies". According to the Vice President of APICCAPS, "Portugal offers exciting solutions to the footwear industry in terms of practically all components and even tanneries". "At a time when there is so much talk of proximity, the Portuguese industry is one of the most qualified in the world, as it has been able to reinvent itself and develop technically and technologically, which has led it to appear on the radar of major international brands in this speciality". At the same time, recalls

Paulo Ribeiro, "the sector has ambitious investment plans underway that aim to make Portugal an international benchmark in the development of sustainable solutions". "It is not reasonable for Asia to account for 90% of the world's footwear production", stresses the Vice President of APICCAPS.

In addition, Paulo Ribeiro argues that the strong investments made by the footwear components sector, particularly in the areas of digitalisation and sustainability, place "the Portuguese footwear cluster at the forefront, capable of responding to the new challenges that the market demands at an international level".

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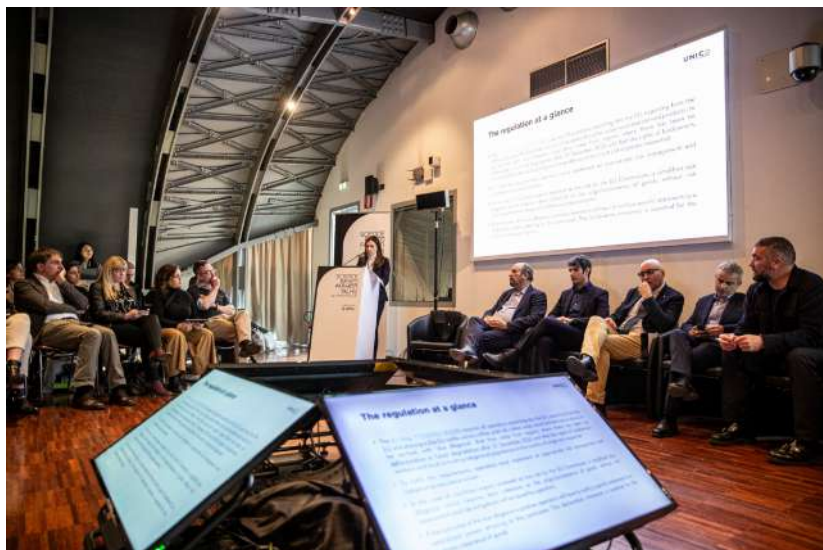
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## Deforestation in the leather supply chain takes centre stage in Milan and Paris

On February 20, 2024, at the Science-based Fashion Talks of the Lineapelle fair in Milan, COTANCE-UNIC held a joint session titled "The EU Deforestation Regulation (EUDR) n. 1115/2023 and the Traceability Challenge in the Bovine Leather Supply Chain", featuring key representatives from UNIC - Concerie Italiane, COTANCE, SPIN 360, AL-INVEST Verde, and Matelli / Italian Leather Arbitration Chamber.



During this session, which gathered over 60 attendees on-site, the speakers explored the implications of the newly enacted EU



Deforestation Regulation and the state of play of leather traceability in major markets, assessing its impact on global leather supply chains. They also discussed both the challenges and opportunities presented by the regulation of the international leather trade.

On 22 February 2024, in Paris at the OECD Forum on Due Diligence in the Garment and Footwear sector, COTANCE Secretary General, Mr Gustavo Gonzalez-Quijano, along with other panellists such as Deborah Taylor (Sustainable Leather Foundation), Francisco Beduschi Neto (National Wildlife Federation), Julia Kozlik (PEFC International), Rogerio De Souza Cunha (Brazilian leather Trade Intelligence), Ruairaidh Petre (Global Roundtable for Sustainable Beef) and Stuart Cranfield (Leather Working Group), discussed the challenges of strict traceability related to mandatory due diligence on deforestation risks in leather supply chains and regulatory compliance.



The Workshop speakers converged in saying that leather is not a driver of deforestation, which made people wonder why at all the EUDR was including it in its scope. Yet, the industry says that it is not opposed to traceability, on the contrary, but such an objective requires more time, more public-private cooperation and also technology and investments.

Indeed, the rigorous traceability requirements mandated by the EU Deforestation Regulation (EUDR) present a significant challenge for the global leather supply chain. With the regulation's entry into application looming in just 10 months, the capability for geolocation tracing back to the animal's birthplace is virtually non-existent anywhere, today not even in the EU, apart from a few small-scale pilot projects.



*Source : cotance*



## **REAL LEATHER. STAY DIFFERENT. LAUNCHES 2024 INTERNATIONAL STUDENT DESIGN COMPETITION**

- The Real Leather. Stay Different. 2024 International Student Design Competition is now open for entries.
- Now entering its fourth year, the competition invites a new generation of designers to challenge the fast fashion cycle and promote the sustainability of leather.
- Register a profile and enter now at [rlsd.internationaldesigncomp.com](https://rlsd.internationaldesigncomp.com). To view last year's winning designs, visit [chooserealleather.com](https://chooserealleather.com).

Announcing the Real Leather. Stay Different. 2024 International Student Design Competition in partnership with Arts Thread, the competition that is the face of a movement dedicated to fostering creativity and championing sustainability within the fashion industry.

Now in its fourth year, RLSD has attracted thousands of entries from hundreds of leading design colleges. It has opened a new path for those embarking on careers in the fashion industry, with winners benefitting from the input of judges from brands including Boss, Mulberry and Wolverine and now working at fashion houses from Christian Louboutin to Oscar de la Renta whilst others are now launching their own labels. All with sustainability at their core.

Funded by the Leather & Hide Council of America (L&HCA), the Real Leather. Stay Different. (RLSD) competitions provide a platform for young talent to showcase their skills while championing responsible sourcing and sustainable practices.

Chad Robertson, co-chair of the L&HCA commented:

*"We are extremely proud to see the Real Leather. Stay Different. International Student Design Competition enter its fourth year. It is an initiative that continues to inspire and empower a new generation of designers to challenge the fast fashion paradigm and embrace sustainability. By harnessing the versatility and durability of leather, these young talents are not only crafting beautiful pieces but also advocating for responsible sourcing and production of the materials they choose to work with."*

Addressing the pressing issue of fast fashion's environmental impact, participants are encouraged to use natural materials. With an alarming 132 million hides wasted worldwide annually, there's a critical need to shift towards a more circular approach.

By repurposing by-products from the meat and dairy industries, leather production actively reduces waste, preventing three million tonnes of hides from entering landfills every year and directly preventing the release of CO2 and other harmful emissions. Amidst the fashion industry's pivot towards sustainability, RLSD remains committed to promoting environmentally responsible practices.

Versatile and durable, leather is the natural alternative to fast fashion. The international competition calls on fashion designers from around the world to craft a bespoke leather item in one of three categories; Accessories, Apparel or Footwear - made from at least 50% cattle hide - that will not only last but be loved for a lifetime.

Alex Brownless, Co-Founder & President of Arts Thread, highlights the competition's dual purpose:

*“Not only is it a wonderful opportunity for students to showcase their talent but it also highlights the critical need to look again at the threat of fast fashion to the planet and people. To support life-long careers in fashion, entrants this year will also be given a profile on Arts Thread, promoting their work to an international audience of industry movers and shakers.”*

Finalists will be judged by a panel of industry experts, including renowned designers and sustainability advocates. Amongst those, Christopher Körber, Managing Director of Hugo Boss and returning RLSD judge, commented:

*“It was a truly rewarding experience to see so much new talent from around the world enter the 2023 competition. But more than that it was inspiring to see how the next generation is approaching the reduction of waste in the fashion cycle, from material selection to the production process itself. I would encourage those with a vision for a more sustainable future to enter the 2024 competition today.”*

The competition is open to students in higher education or who have graduated in the past year. Students can register a profile and submit their designs via [rlsd.internationaldesigncomp.com](https://rlsd.internationaldesigncomp.com), with entries closing at midnight [GMT] on June 30, 2024.

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***Please visit our website:***  
***[www.indianleathermagazine.com](https://www.indianleathermagazine.com)***



Since 2009, ECHA has evaluated nearly 15,000 registrations. The checks ensure that companies provide reliable information on the hazards of chemicals to support chemical safety in the European Union.

The European Chemicals Agency (ECHA), between 2009 and 2023, has performed compliance checks of approximately 15,000 registrations, representing 21 % of full registrations. The Agency has met its legal target for dossier evaluation, which was increased from 5% to 20% in 2019. While, for substances registered at quantities of 100 tonnes or more per year, ECHA has checked compliance for around 30% of them.

In 2023, the Agency conducted 301 compliance checks, covering more than 1,750 registrations and addressing 274 individual substances. These checks focused on registration dossiers that may have data gaps and aim to enhance the safety data of these substances. As a result, 251 adopted decisions were sent to companies, requesting additional data to clarify long-term effects of chemicals on human health or the environment.

ECHA will now put more focus on following up the requests sent to companies. In the follow-up evaluation process, the Agency assesses the incoming information for compliance. The outcome of the incoming data is shared with the Member States and European Commission to enable prioritisation of substances. ECHA will work closer together with the Member States for enforcement of non-compliant dossiers.

Compliance of registration dossiers will remain a priority for ECHA for the coming years. This year, the Agency will review the impact of the Joint Evaluation Action Plan, aimed at improving REACH registrations compliance, and, together with stakeholders, develop new priority areas to work on. ECHA's workshop in March on its Integrated Regulatory Strategy will provide further input to this work.

## Substance evaluation

In 2023, ECHA also adopted six substance evaluation decisions prepared by the EU Member States, requesting further information to assess the safety of substances of potential concern.

## Joint Evaluation Action Plan

In 2019, ECHA and the European Commission decided on a joint plan to improve compliance of REACH registrations. The activities of the plan have now been completed. The next steps to further improve compliance of chemicals safety data are being discussed with the Commission, Member States and industry.

For further information : <https://echa.europa.eu/>

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## **BASF and Inditex make a breakthrough in textile-to-textile recycling with loopamid, the first circular nylon 6 entirely based on textile waste**

- The technology behind loopamid enables recycling of polyamide 6 discarded textiles into new, virgin-quality synthetic fibers and materials
- Zara launches a jacket made only from loopamid®, based on 100% textile waste from garments, after collaborating with leading manufacturing companies to incorporate loopamid into all the different elements of the product

On 23rd January 2024, BASF and Inditex have jointly announced a breakthrough in their efforts for boosting recyclability in the textile industry. With the launch of [loopamid®](#), a polyamide 6 (PA6, also known as nylon 6) made from 100 percent textile waste, BASF is providing the first circular solution for nylon apparel made entirely from textile waste. Zara has turned the material into a jacket made from 100 percent loopamid, available worldwide as of today. Following a “design for recycling” approach, all parts, including fabrics, buttons, filling, hook and loop and zipper are made from loopamid.

With loopamid, BASF has developed an innovative solution to improve circularity in the fashion industry and recycle polyamide 6 textile waste. Due to its capability to tolerate all fabric mixtures like PA6 and elastane, the cutting-edge technology behind loopamid allows textile-to-textile recycling of post-industrial and post-consumer textile waste. The fibers and materials can be recycled over multiple cycles. At the same time, the material characteristics are identical to those of conventional virgin polyamide.

“BASF has reached an important milestone towards circularity in the fashion industry and pioneered an approach to close the loop for nylon textiles,” said Dr. Ramkumar Dhruva, President of BASF’s Monomers division. “Our loopamid has the potential to revolutionize the PA6 market for the better. We are in the process of scaling up our technology to serve our customers with commercial quantities. The capsule jacket together with Inditex is the proof that circularity is

possible, and we are eager to further drive the sustainable transformation of the textile industry.”

Inditex has partnered with other leading groups in the clothing manufacturing industry to seamlessly integrate loopamid into various garment components, including fabrics, zippers, buttons, fillings, hook and loop fasteners, and sewing threads. ModaRe, a take-back program operated by the charity organization Caritas, classified, sorted and provided discarded textiles as feedstock.

The Italian company RadiciGroup has been working in the process of transforming loopamid polymer into various types of yarn with different characteristics. The multinational Japanese fastening products company YKK and multinational Velcro companies have also played crucial roles in utilizing loopamid polymer to create plastic components for zippers and snap buttons, and hook and loop fasteners. Uniter from Spain, Tessitura Vignetta from Italy and Freudenberg and Gütermann from Germany have also participated in this project to develop other garment components such as inner labels, filling materials and sewing threads using loopamid.

Javier Losada, Inditex’s Chief Sustainability Officer, added, “Driving innovation is key to advancing towards a more responsible industry. This collaboration is a great example of how, by collaborating all together, we can use the new technology to transform textile waste into a new resource. This project is also a first step to move towards a circular solution, as the industry still needs to boost new collecting and recycling capacities in order to close the loop and scale recycling for post-consumer waste.”

The collaboration of BASF and Inditex is based on a joint journey – both companies are following ambitious sustainability goals. Inditex aims to have 100% of its textile products to be made exclusively from materials with a smaller environmental footprint by 2030. As part of this commitment, the Group expects to have 25% of the textile fibers made from next-generation materials that do not yet exist at an industrial scale, 40% of conventional recycled materials and 25% of organic and regenerative fibres.

Polyamide 6, commonly known as nylon 6, is a type of synthetic polymer that is widely used in various applications due to its excellent mechanical properties and versatility. BASF is one of the leading manufacturers of polyamide 6 and its precursors, with production sites in Europe, Asia and North America.

# Global Leather Industry PART – I

## NSK SRINIVASAN <sup>1</sup> & HASMUKH SHAH <sup>2</sup>

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A Brief History Of Leather, Origins of leather making, Challenges encountered by Leather Industry,	I.CE.C - Institute of Quality Certification for the Leather Sector, Sustainable Leather Foundation, LWG Tannery of the Future,
Global Leather Market Overview, Global Leather Market Dynamics, Global Lather Market By Product, Top 10 Largest Leather Producing Countries in 2020,	Responsible Leather from Textile Exchange , The Sustainability of Leather - FAQ -LEATHER, NATURALLY, innovation, Innovation Trends, Product & Process, Innovation, Some Potential Innovations in Leather,



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Raw Materials of Leather, Global Scenario,  Indian Leather Industry, Indian's Export of Leather & Leather Products, Global and Indian trend in Livestock Population, Indian leather production centres, Leather Industry Association and Trade Groups	Solutions – Quimser www.quimser.com, Green Technologies for the Leather Production – Clariant, Smit & Zoon – Leather Solutions, Industry 4.0 - Introduction, Evolution of Industry 4.0, Smart factories and Industry 4.0, Industry 4.0 effects on productivity,
Leather Panel- Links, leatherpanel.org . A general consensus in the industry not to use the word 'leather' for synthetic, polyurethane or polyvinyl chloride sheets or any sheets not originating from animal skins or hides,	The Driving Forces Accompanying the Change,  Industry 4.0 focusing Leather Processing, Application of process control in tannery wet operations, ICOL Group presents its high-tech Factory 4.0 solutions for footwear and leather goods sectors, Huni Group of companies - Why Automation,
Leather & Sustainability, Leather is a Recycled Material, Leather and the Meat Industry, What is the Connection? References.	DATATAN 4.0 – HÜNI ERP, VR/AR Tannery Augmented reality (AR) and Virtual Reality (VR),Robotics in footwear manufacturing, Industry 4.0 in 4 Points, Six major design principles rule the conceptualization and implementation of Industry, References

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Regenerated Leather (RGL) & Regenerated Leather Composites (RLCs), Up cycling of Leather Waste, Type of Waste and Reuse /Recycling/Recovery and Treatment, Waste to Wealth,	The negative publicity about leather, Higgs Index & Leather Industry, Responsible chemistry and Life Cycle Assessment ( LCA), Cleaner production, Green Chemistry Principles,
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Leather & Leather Alternatives – Favourable Scenario and Challenges, References.	Going Forward - Leather Colouration, Leather Sustainability, Circular Economy, Synthetic, Recycled and Bio Leathers, Certifications,- Leather Auxiliaries, References.

## 1. Introduction

Leather is an incredible material that has been used throughout history for clothing and tools. The early processes used to make leather, and craft with it, remain very similar to some of those still used today. The history of leather and leather craft has very close ties to people all around the world.

The history of leather began about 400,000 years ago in Hoxne, England. Its evolution can be traced around the world and through the Stone Age, Bronze Age, Iron Age, Ancient Times, the Middle Ages, the Renaissance, the Industrial Revolution, and into modern times.

The leather industry is one of the oldest in the history of mankind. Our most distant ancestors used skins to protect their bodies, hands and feet. Leather is made from the skin of any mammal, reptile, bird or fish through a process called tanning. This process preserves the skin that would otherwise putrefy quickly.

Sustainability in the leather industry has been a much-debated topic since the beginning of leather tanning. There have been many perceptions regarding sustainable leather for the different actors involved in the leather industry. Sustainable Development has a huge impact on organisation and finding ways to manage it best, is a challenging task.

Changing self and changing self-leading to Global Change are small steps taken to attain Sustainability. This directs that the Sustainability is the responsibility of everyone.

Over the years, the subject of sustainability reporting has gained prominence in industrial contexts.

Previously, the need for sustainability actions and reporting was borne out of the need to meet legal and regulatory compliances. Now, business stakeholders such as suppliers, customers and investors are the main drivers for the communication of sustainability credentials. Energy efficiency, waste management and reduction of greenhouse gases emission were the most occurring environmental sustainability practices.

The Futuristic Vision of Leather Industry lays emphasis on Growth & Development, Sustainability, Circular Economy, Innovation, Certifications, Strategies & Policies, Negative Publicity About Leather Done & Counter Measures, Harmonious Living – Leather and Synthetics, Environmental Impact, Greener Products and related initiatives and scenarios.

## 1.1 Leather - Definition and classification <sup>1</sup>

Leather, is the material that results from tanning animal's hides or skins. There are several tanning processes however all of them convert the raw hides and skins in materials that:

- Resist to putrefaction, even after wetting and heating;
- Remain workable, after drying.

The type of tanning process is important for the final properties of leather materials, namely, softness, hardness, tightness and stretching.

A definition of leather is “a material which is resistant to putrefaction and enzymatic destruction and after repeated wetting-drying cycles returns back to its former soft characteristics.” However, there are many other definitions, namely: “a material formed from a network of collagen fibres of hides and skins, treated by appropriate chemical and physical processes to obtain the properties necessary for its final use”. Tannage therefore has to change the properties of collagen, either by chemical reaction or by covering the fibres against outside influences.

The classification of leather depends on its conservation process, animal type, processing stage, tanning process, type of finishing and final quality based on physical-mechanical and aesthetic properties.

## 2. Sustainable Leather <sup>2</sup>

- With growing demand for more environmentally friendly products and services, more businesses turn to sustainable leather made by responsible manufacturers.
- Today's consumers are more mindful than ever before, and they expect the brands they purchase from to provide more - they want environmentally friendly products from ethical, transparent brands. And this trend doesn't show any signs of slowing down.
- As a result, the leather industry has been wrestling with the impact of leather production on the environment and how to address the challenges faced by most global supply chains in the modern age. But this isn't a new consideration – global brands and environmental certifications have been driving these changes for some time.

Life Cycle Assessment Methodology (LCA) is widely recognized as the most effective way to calculate the environmental impact of a product, given that it tracks the impact of each element of the manufacture and transportation of that product from its origin to the end of life.

### 2.1. Leather -The Perfect Example Of A Circular Economy <sup>2</sup>

Leather-making is also sensible from an ethical and environmental point of view.

It is now widely understood that livestock are not slaughtered for hides or skins, as they represent only a small part of the value of an animal.

The use of these raw materials is significantly better than wasting them, creating a global environmental and sanitary disaster. The use of leather avoids  
the waste of a renewable resource

Using leather reduces the need for plastics or other synthetics derived from non-renewable sources, that end up in our oceans and whose micro-particles can now even be found in the food chain.

### 2.2. A NATURAL AND BIODEGRADABLE MATERIAL <sup>2</sup>

#### 2.2. A NATURAL AND BIODEGRADABLE MATERIAL Table – 2 A

- Leather is also natural and biodegradable. However, to be deserving of



## 2.2. A NATURAL AND BIODEGRADABLE MATERIAL Table – 2 A

the qualification of sustainable, leather must also comply with strict social and environmental standards.

- It is nonsensical for leather to have these extraordinary intrinsic credentials, if during its production it creates more environmental damage than it avoids, or if workers are exposed to dangerous chemicals.
- Just as leather must fulfil strict criteria for protection of consumers, emissions to water, land or air during production must be also managed and reduced.

The selection of materials and manufacturing processes often determines most of the environmental impact that a product will have during its life cycle.

Reference : 2. & Table 2 A. Leather Working Group - What is Sustainable Leather [www. leatherworkinggroup.com](http://www.leatherworkinggroup.com)

## 3. Environmental Challenges of Leather Value Chain <sup>3</sup>

### Environmental Challenges of Leather Value Chain Table -3 A

#### Three Stages of Leather Production

There are three stages of manufacturing leather products:

1. Obtaining raw materials - Rearing livestock or catching wild animals. Slaughter.
2. Leather production - Preparing the hides. Tanning. Crusting. Finished Leathers.
3. Producing the finished leather goods.

The first two stages are especially challenging to handle in a sustainable, eco-friendly, and ethical way

## 3.1 Issues Encountered When Obtaining the Raw Materials <sup>3</sup>

### Issues Encountered When Obtaining the Raw Materials Table – 3 B

The availability of the hides for leather material is affected by environmental factors common to the main producing countries and regions, and depends on:

- Climate change • Water scarcity • Environmental pollution • Raising of the animals
- Nutrition of the animals • Living conditions of the animals

In addition, there are several human factors that also affect the leather supply chain:

- Human rights • Effects on local populations – noise, pollution, buying up of land
- Safety and health of the workers

### 3.2 Issues Encountered When Obtaining the Raw Materials <sup>3</sup>

#### Issues Encountered In Leather Production Table – 3 C

- Consumers are becoming more environmentally conscious and
- Have a lower tolerance for environmental pollution and unsustainable textile manufacturing practices.
- If fashion brands want to offer their buyers sustainable and eco-friendly items, their first step is to choose leather from suppliers that meet international environmental compliance laws and standards.

Reference : 3. & Tables – 3 A & 3 B & 3 C. 3.SOCIAL & ENVIRONMENTAL REPORT 2020 - THE EUROPEAN LEATHER INDUSTRY  
[www.euroleather.com](http://www.euroleather.com)

### 4. LEATHER IS A RECYCLED MATERIAL Figure - 4



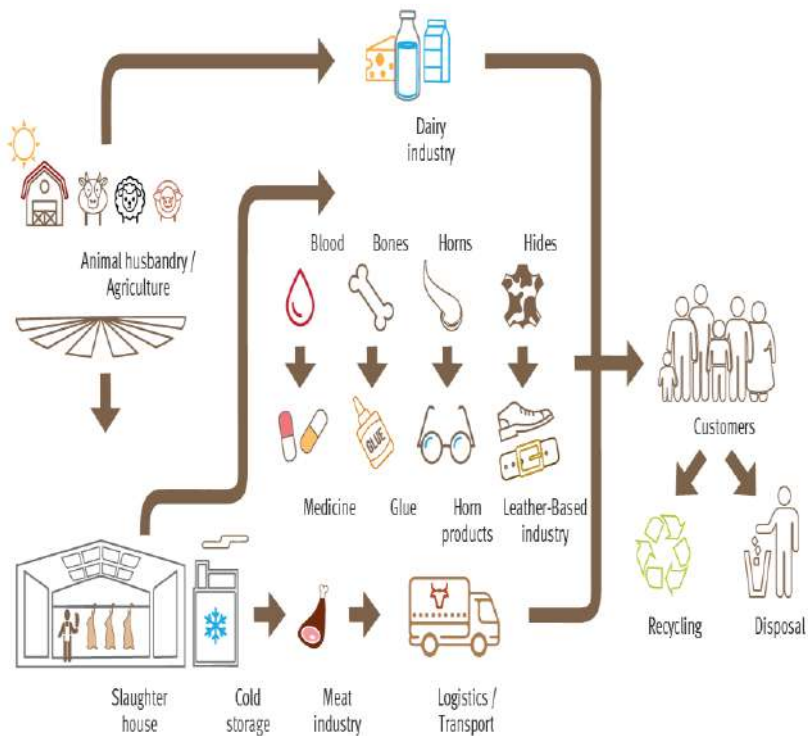
Reference : Figure 4. Leather Naturally – Fact Sheet. LEATHER IS A RECYCLED MATERIAL [www.leathernaturally.org](http://www.leathernaturally.org)

## 5. SUSTAINABILITY OF THE LEATHER PRODUCTION PROCESS

Raw hides and skins, as waste material from the food industry, enter the leather production cycle. This application favours the reduction of global pollution by preventing skins to become a waste and thus disposed. The destruction process of animal skins would contribute substantially to the production of greenhouse gases. Therefore, the tanning production process is a highly sustainable industrial activity from an environmental point of view.

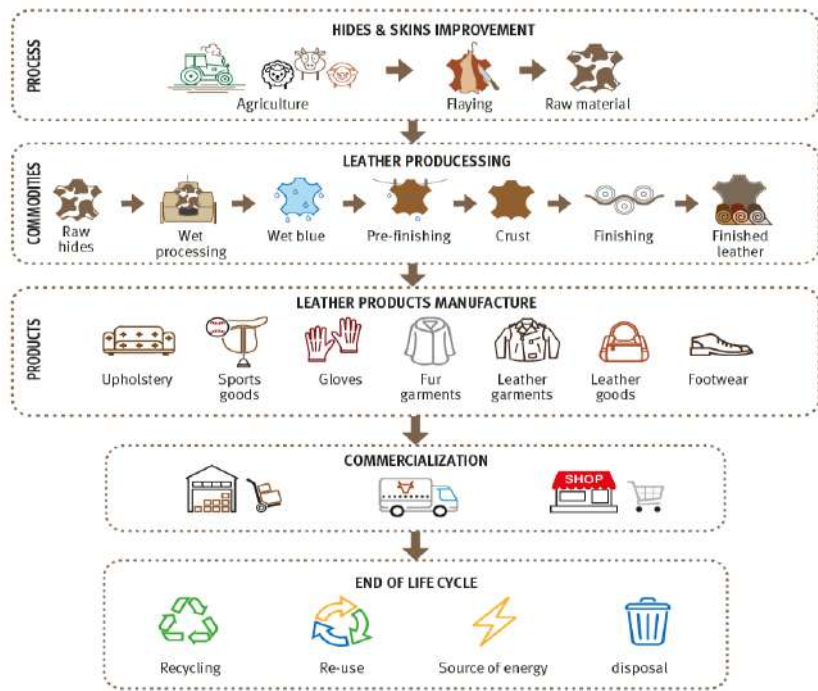
### 5.1 Leather and Circular Economy – Livestock Products – Co Products – By Products

Figure – 5 A



Reference: Figure – 5A. Leather-Example of circular economy, Gustavo Gonzalez-Quijano Secretary General of COTANCE, Schloss Hernstein, 15 October 2019

5.2 Leather Supply Chain Figure – 5 B



Reference : Figure – 5 B. The framework for sustainable leather manufacture. Second edition - Jakov Buljan, Ivan Kral'. The United Nations Industrial Development Organization.

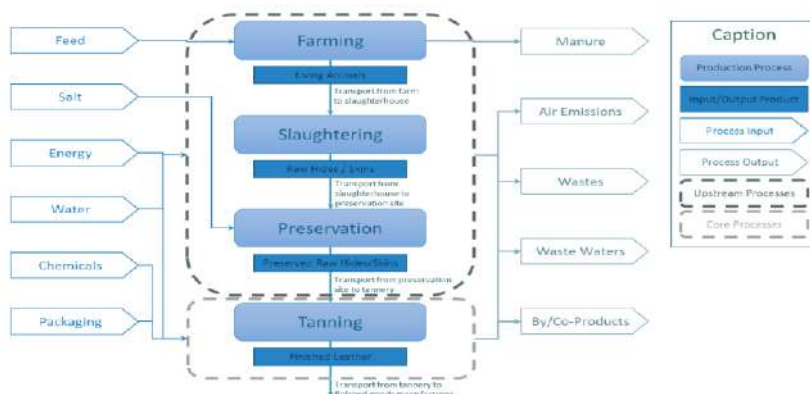
5.3 The following life cycle stages and processes have been included in the system boundary

Life cycle stages

Life cycle stage	Short description of the processes included Table – 5 C
Farming	Breeding of animals, including: · Feed cultivation · Feed products preparation; · Animal breeding; · Energy and water consumption for animal raising; · Manure management
Slaughtering	Animals are professionally slaughtered and flayed (separating the hides or skins from the carcasses).

Life cycle stage	Short description of the processes included Table – 5 C
Transport	Transportation of raw hides / skins from slaughterhouse to tannery.
Preservation	Immediately after the animal has been slaughtered, the flayed skin is subjected to preservation processes to avoid putrefaction. Preservation, salting or drying, is carried out in the slaughterhouse or by specialized companies.
Tanning	<p>Transformation of hides/skins in finished leathers through production processes that can take place at different locations depending on the mix of in-house production and third parties commissioned work. Within the core processes, all tanning activities shall be considered.</p> <p>From the input side: · Raw hides and skins supply and consumption; · Energy production and consumption; · Water consumption; · Chemical production, supply and consumptions; · Packaging materials production, supply and consumption;</p> <p>From the output side: · Wastewater generation · Wastewater treatment, either performed inside or outside the organization; · Waste generation and treatment; · Air Emissions; · Splits when applicable (flesh and middle splits, i.e. when destined to leather).</p>

#### 5.4. System boundaries schematically illustrated Figure - 5 D

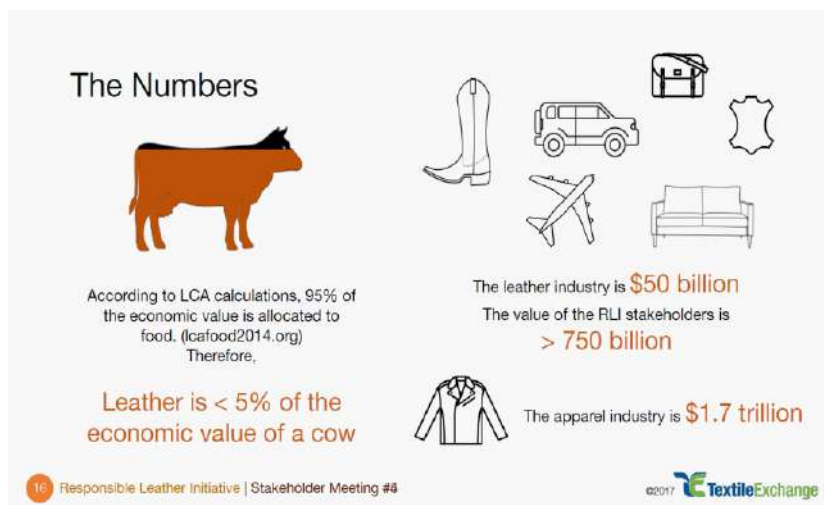




Reference :Table 5 C & Figure 5 D. PRODUCT ENVIRONMENTAL FOOTPRINT CATEGORY RULES - Leather. De Rosa-Giglio P.1, Fontanella A.3, Gonzalez-Quijano G.2, Ioannidis I.1, Nucci B.3, Brugnoli F.4 on behalf of the Leather Pilot Technical Secretariat 1*Unione Nazionale Industria Conciaria (UNIC)* 2*Confederation of National Associations of Tanners and Dressers of the European Community (COTANCE)* 3*Scuola Superiore Sant'Anna (SSSUP)* 4*Spin 360*

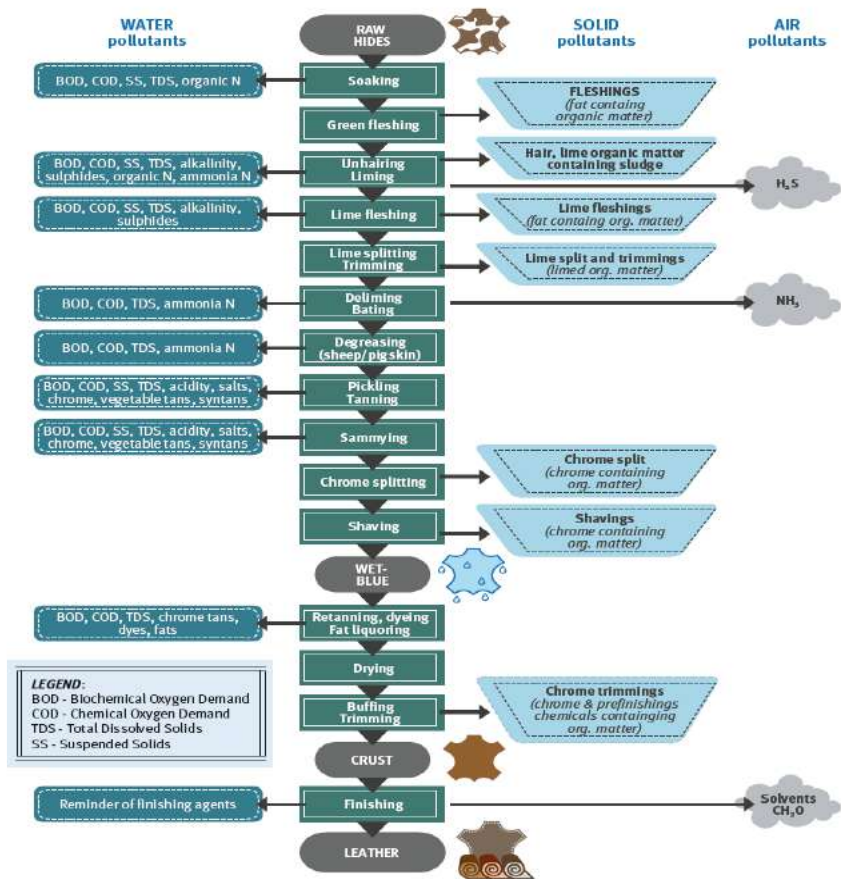
Final version 25 April 2018 Valid until 31 December 2020

**5.4 The Numbers - LCA calculations- 95% of the economic value is allocated to food. (lcafood2014.org) and Leather is < 5% of the economic value of a cow. Figure – 5 E**

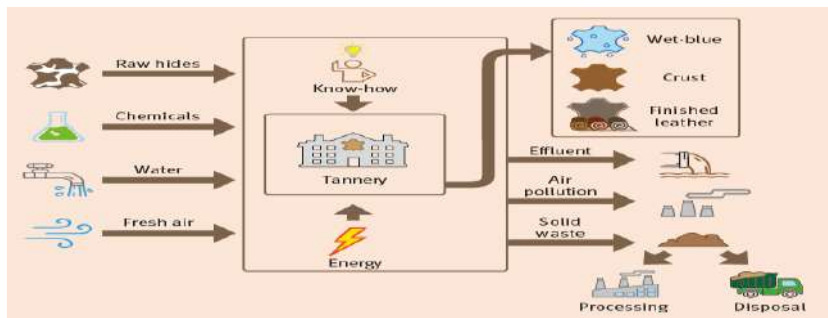


Reference : Figure- 5 E. Responsible Leather Initiative. Stakeholder Meeting #5. Textile Exchange 2017.

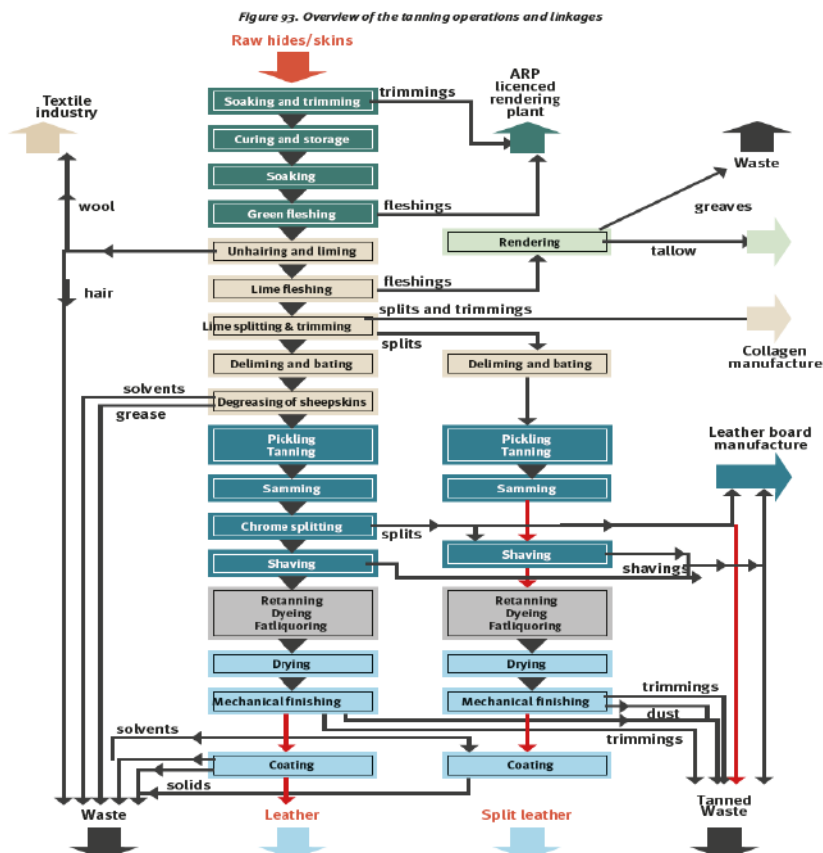
**5.5 Sources and Types of Pollutants Generated in Leather Processing**  
**Figure – 5 F**



5.6 A simplified chart of the tanning industry Figure – 5 G



## 5.7 Overview of the tanning operations and linkages Figure – 5 H



Reference : Figure – 5 F & 5 G & 5 H. The framework for sustainable leather manufacture. Second edition - Jakov Buljan, Ivan Kral'. The United Nations Industrial Development Organization.

## 6. A Brief History Of Leather <sup>6</sup>

A true testament to human ingenuity and resourcefulness, leather has undoubtedly played a crucial part in the development of civilisation. From early man to the modern day, leather has been an enduring feature of almost every era of design and fashion.

The benefits of utilising dried animal hides were first recognised in prehistoric times when early man began to use early forms of leather for

clothing and shelter against harsh conditions. The earliest recorded leather artefacts crafted by primitive societies date back to 1300 BC when man began to appreciate animal skins as much more than just a food by-product. Early civilisations across the world started to develop their own techniques to soften and preserve their animal hide by-products using methods traditionally passed down from father to son through many generations, such as smoke and animal grease. However, it is thought that the art of vegetable tanning as we know it today was originally discovered by ancient Hebrew settlers.

## 6.1 Leather <sup>6A</sup>

**Leather**, animal skins and hides that have been treated with chemicals to preserve them and make them suitable for use as clothing, footwear handbags, furniture, tools, and sports equipment.

The term *hide* is used to designate the skin of larger animals (e.g., cowhide or horsehide), whereas *skin* refers to that of smaller animals (e.g., calfskin or kidskin). The preservation process employed is a chemical treatment called tanning, which converts the otherwise perishable skin to a stable and nondecaying material.

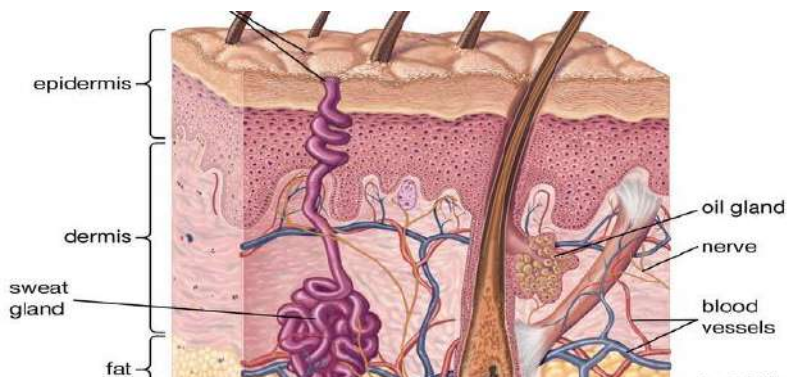
Tanning agents include vegetable tannins (from sources such as tree bark), mineral salts (such as chromium sulfate), and fish or animal oils. Although the skins of such diverse animals as ostriches, lizards, eels, fish, and kangaroos have been used, the more common leathers come from seven main groups: cattle, including calves and oxen; sheep and lambs; goats and kids; equine animals, including horses, mules, and zebras; buffalo; pigs and hogs; and such aquatic animals as seals, walrus, whales, and alligators.

The hides of mammals are composed of three layers: epidermis, a thin outer layer; corium, or dermis, the thick central layer; and a subcutaneous fatty layer. The corium is used to make leather after the two sandwiching layers have been removed.

Fresh hides contain between 60 and 70 percent water by weight and 30 to 35 percent protein. About 85 percent of the protein is collagen, a fibrous protein held together by chemical bonds.

Basically, leather making is the science of using acids, bases, salts, enzymes, and tannins to dissolve fats and nonfibrous proteins and strengthen the bonds between the collagen fibres.

## 6.2 Skin A cross section of mammalian skin and its underlying structures. Encyclopaedia Britannica, Inc. Figure – 6 A



Reference : 6A & Figure – 6 A. leather animal product By The Editors of Encyclopaedia Britannica

## 6.3 Origins of leather making <sup>6A</sup>

Leather making is an ancient art that has been practiced for more than 7,000 years. Fresh skins were dried in the sun, softened by pounding in animal fats and brains, and preserved by salting and smoking. Beginning with simple drying and curing techniques, the process of vegetable tanning was developed by the Egyptians and Hebrews about 400 BCE. During the Middle Ages the Arabs preserved the art of leather making and so improved it that Morocco and cordovan (from Córdoba, Spain) became highly prized leathers.

By the 15th century, leather tanning was once more widespread in Europe, and, by the mid-19th century, power-driven machines that performed such operations as splitting, fleshing, and dehairing were introduced. Toward the end of the 19th century, chemical tannage—which included the use of oak, sumac, and hemlock tanbark and chrome salts—was introduced.

*(To be continued....)*



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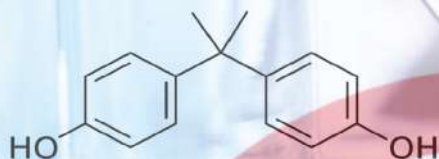
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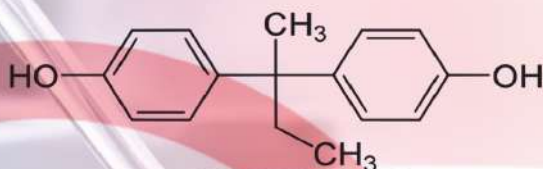
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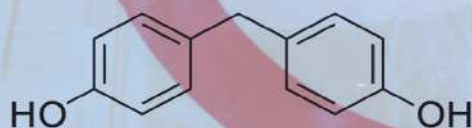
**BISPHENOL A**



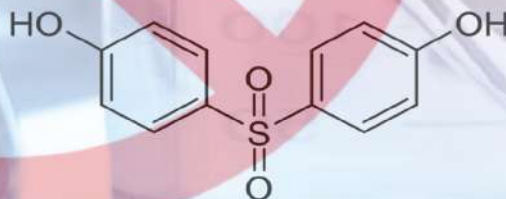
**BISPHENOL B**



**BISPHENOL AF**



**BISPHENOL F**



**BISPHENOL S**