

SUSTAINABILITY
REPORT

2021

The commitment of the Italian tanning industry to **sustainability**

For 19 years, the UNIC report has provided a picture of the Italian tannery's commitment to the sustainability of products and processes to benefit the entire supply chain and the end consumer, creating value and articles of undisputed excellence.

The annual report summarises and communicates values, objectives, activities, impacts, and results using the lens of the Sustainable Development Goals (SDGs) defined by the United Nations Agenda 2030, to which our sector has inspired for several years, and the European Green New Deal, the ambitious European action plan to achieve climate neutrality by 2050.

2020 was a year strongly marked by the Covid-19 pandemic, which severely affected the Italian tanning industry causing deep economic contraction, with substantial drops in terms of turnover (-23%), production (-16%), and exports (-25%), while employment remained substantially stable (-0.6%). But 2020 was also a year in which there was a significant acceleration towards the ecological and digital transition and the change needed to meet their objectives.

Consistent sustainable development will have to be based on a broader concept of capital that reflects the plurality of capitals: the economic one, undoubtedly, but also the environmental capital to be preserved, the social capital to be maintained, and the reputational capital to be communicated and promoted.

Transparency and reporting on the impacts and initiatives are undertaken, together with an approach that includes the entire value chain, are and will be increasingly strategic elements in the present and future development of the tanning sector, which has shown so far that it can evolve about the economic, social and cultural contexts in which it operates. At the same time, it is increasingly called upon to consider new needs expressed by stakeholders as the main driver for sustainable change.

METHODOLOGICAL NOTE

The information and indicators included in the report result from a materiality analysis that identifies the environmental, social, economic and ethical issues of significant relevance to sustainability, as perceived by tanneries and critical stakeholders.

The identification of areas for action in the various material topics took into account the Sustainable Development Goals (SDGs) defined by the United Nations in their 2030 Agenda, the international reference that identifies the objectives to which any organisations must be committed to actively contributing global sustainable development.

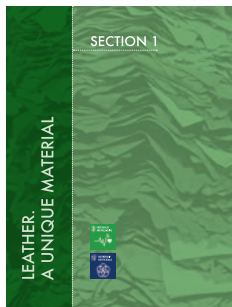
The reference period of the published data is 2020 (1 January - 31 December), while the activities described covering a broader timeframe that includes il 2021, contributing to a more comprehensive picture of the results achieved to date.

The reporting boundary is also differentiated. It considers a consolidated sample of tanneries representing just under a quarter of national turnover, evenly distributed nationwide in terms of size, production type and geographical location for environmental and social data.

It considers a more significant structural sample for the definition of the economic framework.

Finally, the indicators relating to occupational accidents and diseases are drawn up based on national sectorial statistics provided by INAIL, the Italian Institute for insurance against industrial injuries.

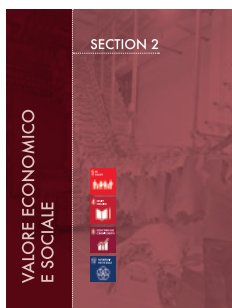
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LEATHER. A UNIQUE MATERIAL

SECTION 1

3 GOOD HEALTH
AND WELL-BEING



17 PARTNERSHIP
FOR THE GOALS



WHY LEATHER

Words are important. Their meaning and the way they are used play a fundamental role in the current competition of materials, which has been as aggressive

and, unfortunately, misleading as never before. In this sense, leather is the keyword, that identifies not only material but a deep industrial and artisan horizon, in terms of breadth, tradition, innovative capacity.

And not only for this reason.

Leather is the misunderstood object of eco-vegan crusades that distort its meaning and mission for the sole benefit of its marketing. And then use “leather” name, enriched with prefixes, suffixes, various adjectives and so on, to promote materials that:

- imitate the appearance of leather,
- boast of unspecified green qualities that are (often) denied by the facts,
- falsely and knowingly accuse the tanning industry of being responsible for killing billions of animals every year.

You will find a comprehensive analysis of all this in the following pages of this Report of sustainability by UNIC – Italian tanneries, which tells how much and why Italian leather (which in 2020 obtained the right to defend the semantic identity of its reference material under the law) represents an exemplary, excellent, and the innovative case of continuous improvement of its sustainable responsibility.

It does this by starting with words such as ‘leather’, ‘sustainability’, ‘circularity’ and ‘ethics’,

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AN ETHICAL CLAIM FOR THE SUPPLY CHAIN “WE RECOVER OUR LEATHERS FROM THE FOOD CHAIN”

Today’s world is constantly presenting us with messages of all kinds.

A claim is an expression used to emphasise a specific feature of a product or service. Its purpose can easily be found in the meaning of the verb “To claim”, which means affirming and declaring. The claim, therefore, is a compelling statement that summarises a message with strength and effectiveness, communicating an essential idea that can then be explained in more detail.

The need to create an ethical claim on the nature of leather as a by-product arises to communicate essential information on the supply chain and to support the correct information to the market and end consumers. Inspired by the principles of the [ISO/TS 17033 “Ethical claims and supporting information - Principles and requirements”](#), the claim certifies that the animals from which the hides and skins used as raw materials are derived were slaughtered solely for food purposes, i.e. they come from slaughterhouses authorised and operating for meat production.

The claim is certifiable. The validity of the claim can be certified. It is possible to empower the claim or integrate it with the certification of traceability of raw hides and skins or semi-finished leathers. [ICEC](#), the certification body specialised in the leather sector with which UNIC collaborates, has set up a verification protocol, including technical specifications and related regulations.

FOCUS 2021**THE GREEN ALTERNATIVES TO LEATHER. ARE THEY INDEED?**

In recent years there have been a wide variety of new materials, produced in particular from plant biomass, but not only, whose only (or almost only) motto to define themselves as green and sustainable has been to self-declare themselves better than leather, for one specific issue rather than another.

While material innovation is a fundamental step in the transition towards sustainability, what almost always emerges is the absolute absence of transparency on the specific technical characteristics and scientifically supported arguments. Starting from this tendency, the **FILK** institute (*Forschungsinstitut für Leder und Kunststoffbahnen*) analysed in the “**Trend Alternatives for Leather**” study⁹ “leather-alternatives” materials claimed as green, evaluating both their performance and chemical contents. What emerges is that the materials explicitly promoted as antagonists to leather are not comparable in terms of performance (above all permeability, resistance, and durability) and sometimes with a prevalence of synthetic components (such as PVC and PU) over natural fibres.

analytically exploring the actual and verifiable value of their meaning.

Because certain words are more than essential. They are essential.

AUTHENTICITY AND TRANSPARENCY

Contemporary consumers are increasingly demanding information in order to be able to assess the characteristics, performance and values associated with what they buy or use.

And they care about sustainability, as market trends confirm.

It is therefore essential to communicate the correct elements for an increasingly aware purchase, orienting oneself among a great deal of different information and marketing strategies that often emphasise a specific quality or aspect, omitting a lot of crucial information and, therefore, misleading the consumer.

When talking about leather, it becomes therefore crucial to communicate its values and its own characteristics to brands and retailers and, through them, to the end customer.

Before any other consideration, values are inherent in the essence and origin of the raw material from which the leather originates: that **is natural, from of animal origin, renewable, circular**. The collagen’s three-dimensional structure, which makes up the dermis of vertebrates and is never changed by production processes, gives “real” leather its unique and inimitable characteristics. To tackle the growing abuse of the terms, protect the market and avoid misleading messages to the end consumer, it became necessary to promote legislative action to preserve the transparency and authenticity of the leather materials. That led, on 24 October 2020, to the entry to force of the so-called Leather Decree ([Legislative Decree no.](#)

68 of 9 June 2020), which repealed the old Law no. 1112/66 and renewed the definitions of the terms “leather”, also regulating their labelling for sectors not covered at European level by other regulatory provisions (such as footwear).

Legislative Decree no. 68/2020 provides a clear definition of what is meant by “leather”: a material that must have at least two fundamental and distinctive characteristics: the animal origin and an intact fibrous structure.

According to this decree, no material that is not genuine leather, i.e., does not originate from an animal hide or skin and does not have the unaltered collagen fibrous structure, can be defined or labelled as “leather”. The use of terms that do not comply with the definitions is forbidden and sanctionable, even in combination with suffixes or prefixes, in languages other than Italian and any communication, including web-based, to contrast abuses in online trade and advertising. At the same time, labelling or marking obligation is envisaged for economic operators who use the terms to describe and promote products intended for sale to inform consumers of their composition.

This result has also encouraged economic operators of the sector in other countries to lobby their governments and the European Commission to regulate the correct use of the leather terms.

ONLY LEATHER IS AN ALTERNATIVE TO LEATHER

Sustainability is a broad and multifaceted concept. For this reason, it needs to be supported and demonstrated through multiple actions that altogether define the framework.

The sustainability of leather and its value chain, in particular, cannot today

be separated from proper and effective communication to the market that highlights its peculiarities.

The tannery has a feature that characterises its own *raison d'être*. Since the beginning of human history, tanneries have existed to reuse a waste product: the remains of animals killed for food. This purpose is still true today and accounts for almost all Italian leather production, except exotics. In other words, before the circular economy was promoted as a paradigm for the new sustainable economic development, tanneries were already applying its principles by using waste from another industry, moreover of a primary kind such as the food industry, as a raw material. This statement, which is evident to many stakeholders, is not universally acknowledged and needs to be communicated appropriately. Credibility mechanisms recognised by the market, such as validation by an independent third party, can strengthen its effectiveness.



THE CHALLENGES TO 2030

Regarding leather material and its enhancement, shortly, it will be essential to promote a better knowledge of the material, contributing to a more informed approach and choice by all market operators and the final consumers, based on correct information and methodologies, where possible scientifically robust, which can guarantee a clear and transparent comparison even between different materials, based on the actual technical and sustainability performance of the other materials.

ECONOMIC AND SOCIAL VALUE

SECTION 2

1
NO
POVERTY



4
QUALITY
EDUCATION



8
DECENT WORK AND
ECONOMIC GROWTH



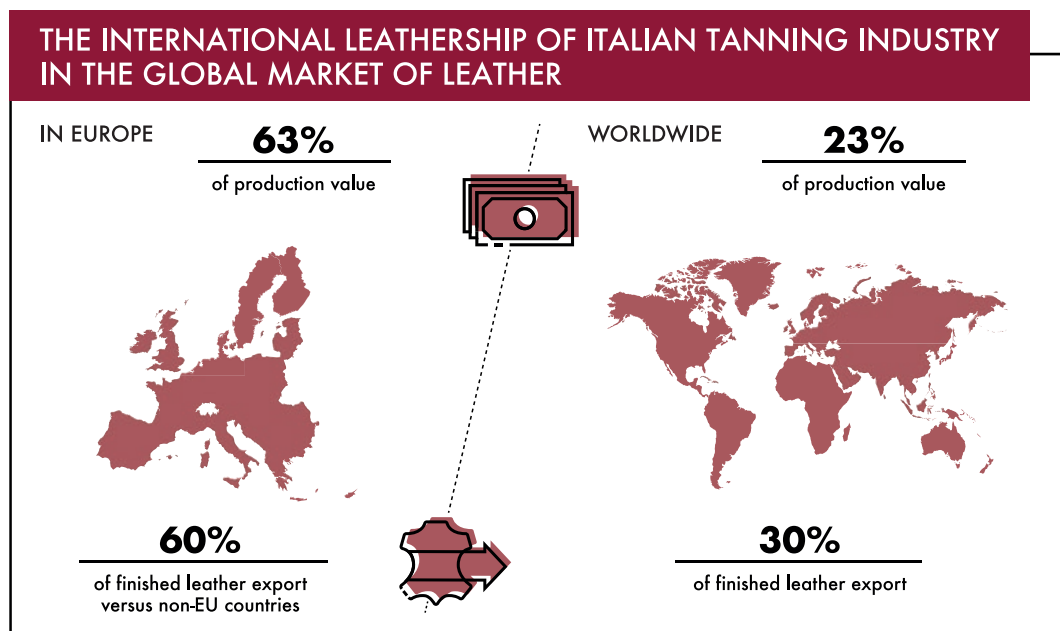
17
PARTNERSHIP
FOR THE GOALS



THE **ECONOMIC** PICTURE

Despite the global economic situation of 2020 due to the Covid-19 pandemic, the Italian tanning industry maintains an undisputed international leadership, thanks above all to the high value of its production.

It is the leading European producer of finished leathers, with a value equal to 63% of the sector's turnover on a continental level, and contributes to 23% of the global value produced worldwide.



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MARKET TRENDS AND INCREASING COSTS

According to first estimates, the Italian tanning industry closed 2021 with a 13.2% increase in production and 22.5% increase in turnover compared to last year. However, it must be stressed that 2020 was an extraordinary year: in spring, tanneries had to suspend production during the first wave of Covid-19 and in the following months demand slowed down considerably. A comparison with pre-Covid-19 results shows a persistent downturn (between 5% and 20% compared to 2019 depending on economic indicators). The sector has therefore not recovered to pre-Covid 2021 levels, although it appears to be on track. A major recent concern is the prices of raw materials, namely raw hides and skins (up 20% on average in 2021, with peaks of over 50%), chemicals and energy. These are accompanied by increases in services, such as wastewater treatment and logistics. This trend is broad, widespread and generalised, and the real risk is that it could severely inhibit the timing and intensity of recovery, with serious consequences on financial sustainability.

The general picture shows a diversified reality in product types and company sizes, albeit with an evident prevalence of SMEs, which have over 1,165 companies and about 17,000 employees.

In 2020, the production of finished leathers amounted to 97 million square meters of finished leathers (-16.4% in 2019) and 7 thousand tons of sole leather, for a total value of 3,5 billion euros (-23.1 % in 2019), of which over 70% generated by exports.

The industry almost exclusively processes leathers of bovine, sheep and goat origin for fashion (36% for footwear, 26% for leather goods, and 4% for clothing) and upholstery (16% furniture and 16% car interiors).

The great flexibility of Italian Tanneries allows the interaction different market segments, from top luxury, to premium, to mass market.

The Italian tanning sector has always based its value on a highly specialized territorial system that has its strength and excellence in the production districts that guarantee the creation of synergies, consumption efficiency, reduction of scraps and waste and their treatment and recovery, collaborations, continuous confrontations of solid stimulus for the development of the company and the territory.

Tanning clusters are integrated and complex ecosystems that include not only tanneries, but also chemical suppliers and producers of machines and technologies, service companies and consortia. A sharing of products, technologies and expertise that has been and still is a driving force for the development of companies and the territory.

There are three main production clusters in which the tanning companies are concentrated: the Chiampo Valley in Veneto, the Valdarno region in Tuscany and the “Solofrano” in Campania, to which are added realities of absolute excellence in other areas such as the “Magentino” in Lombardy, in the surroundings of Naples, in Piedmont.

Geographical Area has its peculiarity and is characterized by a prevalent type of production.

REGIONAL DATA

VENETO

Employees:	8,462	-0.4%
Companies:	449	-0.4%
Production:	2,179 mln. €	-18.7%

TUSCANY

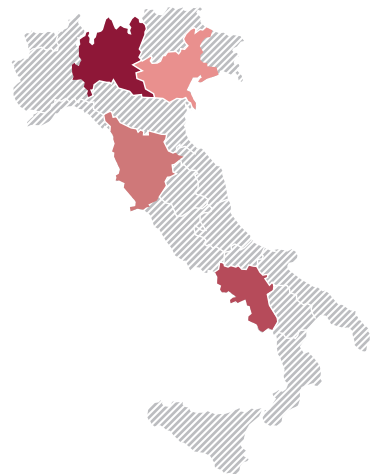
Employees:	5,604	-1.4%
Companies:	510	-1.2%
Production:	930 mln. €	-28.5%

CAMPANIA

Employees:	1,761	-2.7%
Companies:	142	-2.1%
Production:	208 mln. €	-30.2%

LOMBARDY

Employees:	856	-5.0%
Companies:	35	-5.4%
Production:	138 mln. €	-31.1%



OTHER REGIONS

Employees:	591	-5.3%
Companies:	29	-6.5%
Production:	83 mln. €	-33.1%

THE SOCIAL PICTURE

THE MAIN INDICATORS



18%
FEMALE
EMPLOYMENT
DI CUI **8.7%** OPERATIVE



89.2%
PERMANENT
CONTRACTS
FRAMEWORK



18.8%
FOREIGN WORKERS

Even during the pandemic, safeguarding jobs has been a top priority for tanneries. In recent years, employment in the sector has remained more or less stable, reaching 17,274 in 2020. A detailed analysis of the employment picture shows the limited engagement of women, slightly decreasing compared to 2019, and a still significant incidence of foreign workers, although very variable between geographical areas, ranging from over 25% in Veneto to a low presence in Campania, in line with local employment dynamics. Concerning the type of contract, permanent employment, which is by far the most widespread in member companies (89.2% of employees are employed under this contract), remained more or less stable (-0.6% over the year), thanks in part to the measures put in place by the Italian government to guarantee income and employment continuity. In the year of the pandemic, there was a sharp fall in the number of people employed on fixed-term contracts (-50.6%), while training and apprenticeship contracts recorded a marked increase (+19.0%). Among the instruments that have made it possible to limit the impact of the pandemic crisis on employment (at least on the permanent job), social safety nets have played a significant role, first and foremost the layoff for

COVID-19, used by almost all companies (92%), especially during the lock-down periods. An essential aspect for the characterisation of the staff employed emerges from the data relating to the age of workers and length of service. The analysis by seniority shows that workers remain in companies for an average of fewer than 10 years (over 64% of those employed), and almost one in four workers (22.7%) have professional seniority of between 10 and 20 years.

SENIORITY

Over 30 years



3.7%

21 to 30 years



9.4%

11 to 20 years



22.7%

Up to 10 years



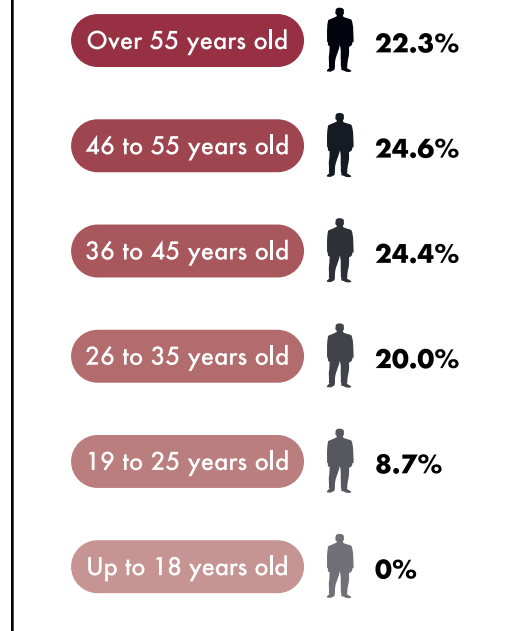
64.3%

The breakdown by age shows constant and progressive ageing of the working population, with 47% of the workforce aged over 45 and 22.3% over 55. The figure strongly raises the issue of generational change and, in turn, the need for actions aimed at attracting new talent, also thanks to close collaboration with the education system, so that it can interface with the world of work for the development of new professionalism and skills required by the production system.

PROTECTION OF WORKERS' HEALTH AND SAFETY

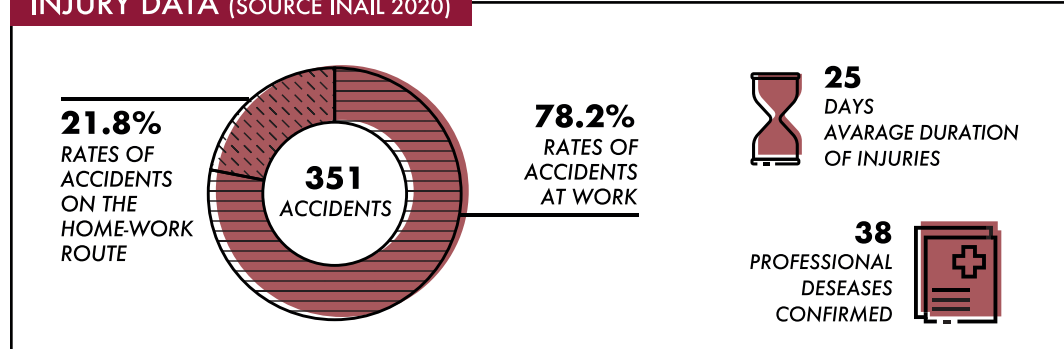
The attention paid by companies to the health and safety of workers in 2020 gave important feedback in terms of prevention, as shown by INAIL data on accidents and occupational diseases. Accidents, in particular, registered a 43% reduction in the number of events compared to 2019, while recognised occupational diseases were just over half the figure recorded by the Institute for the previous year. This result is partly related to the lockdown following the Covid-19 pandemic. Still, it is part of the positive trend of recent years, as also attested by INAIL in an in-depth sector analysis, which shows the excellent

AGE BREAKDOWN



results achieved in prevention in companies in the sector. (*Trend in accidents at work and occupational diseases - No. 12/2021*). The picture of pathologies of occupational origin in 2020 shows a significant drop in both pathologies recognised as having an occupational source (38 cases, -39%) and complaints (70 cases, -36%) compared with 2019.

INJURY DATA (SOURCE INAIL 2020)



INDUSTRIAL RELATIONS

The role of industrial relations is increasingly essential and strategic: promoting a more inclusive social dialogue and good collective bargaining is one of the critical tools to ensure the continuous improvement of working conditions and well-being of the workers. The current changes also require the social partners to adopt collective bargaining instruments to the socio-economic context characterized by increasingly complex challenges. The National collective agreement is an example of this, as the UNIC Code of Conduct, a tool for “doing social responsibility” in tanneries, guaranteeing over time the effectiveness of what has been put in place. During 2020, collective discussion and negotiation allowed the definition of a specific Anti-Contagiousness Protocol for the tanning sector companies, adopted from the National Anti-Contagiousness Protocol promoted by Confindustria, Trade Unions and the Government, aimed at ensuring the recovery of work activities in the tannery under the best safety conditions.

FOCUS 2021



RENEWAL OF NATIONAL COLLECTIVE AGREEMENT

On 21 January 2021, the National Collective

Labour Agreement (CCNL) for employees working in tanneries was renewed. During the intense negotiations, the Parties shared a commitment to dialogue and constructive confrontation to tackle the difficult economic situation caused by the pandemic emergency. One of the most significant innovations in the adhesion to SANIMODA is the additional healthcare fund for workers in the fashion industry. The renewal also introduces greater organizational flexibility (including an increase in the percentage of possible recourse to fixed-term contracts, including staff leasing) and more favourable treatment for workers.

FOCUS 2021

ERICA PROJECT

In the framework of the Sectoral European social dialogue, UNIC-Italian tanneries takes part to the **ERICA** (*European Repository of the Industry Collective Agreements*) project, promoted by Cotance, the Confederation of European Tanneries, and INDUSTRIALL, the European trade union representation. The project is aimed at creating a common database of national collective agreements for employees in tanning companies. The on-line sharing among the European partners will allow them a comparative analysis of key elements of national collective bargaining, promoting a better knowledge of the European social dialogue and facilitating the dissemination of best practices among stakeholders.

TRAINING

The excellent skills challenge

Training, for the whole leather chain, has always played a fundamental role, in relation not only to the development and qualification of employment but also to the ability of companies to remain competitive over time. The changes underway, first and foremost the ecological transition and the rapid evolution of technologies and market trends, are determining a profound transformation of the skills needs of workers and, with them, of the professional profiles required. In addition, there is the physiological turnover and the progressive ageing of the working population concerning the difficulty of recruiting young people. Sectors with a high level of craftsmanship, such as those related to leather processing, but not only, have lost their appeal to Millennials, who are more attracted to other professions. There is, therefore, an increasingly urgent need for actions involving the most significant number of stakeholders from both the industrial and training sectors, promoting wide-ranging initiatives and sharing good practices to connect companies and young people. This is the context of the sector's ongoing

NUMBERS OF 2020

YOUTH TRAINING

- Target audience: students of secondary schools, post graduate specialization courses, fashion institutes and universities both in Italy and abroad
- **107** courses
- **4.620** participants
- **272** hours of lessons

TRAINING FOR THE SUPPLY CHAIN

- Target audience: employees of brand and manufacturing companies, retailers, designers
- **49** courses (Italy and abroad)
- **745** participants
- **121** hours of lessons

commitment to training and disseminating the culture of Italian leather and its values, with training proposals at schools, higher education institutes and universities.

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CROSS-SECTORAL INITIATIVES FOR SKILLS AND UP-SKILLING

Blueprint Skill4Smart TCLF 2030

The Erasmus + programme aims to update and modernise the training and curricular offer in the textile, clothing, leather and footwear sectors by reducing the mismatch between the training offer and the skills required by companies. The initiative involves more than 20 public and private stakeholders belonging to the TCLF (Textile, Clothing, Leather & Footwear) sectors, coordinated by the European umbrella organisations Euratex, CEC, COTANCE. In 2021, within the project, the [European Fashion Campus](#) (EFC) platform was implemented. It is a dynamic tool that collects and enables the sharing of courses, good practices and other opportunities for upskilling in TCLF.

INITIATIVES IN THE TERRITORIES

To attract young people, a fundamental step is to make them aware of the role and importance of tanning companies in constructing economic and social development in the territories while starting from tradition is projected towards an all-round sustainable future. In this perspective, it is essential to address schools of all levels, with projects and initiatives of cultural value involving public and private entities. Available companies, lectures and testimonials at school, and competitions stimulate young people's curiosity about leather, its world and the many professional opportunities it offers. 'Nella mia città' is one example. The aim of the annual competition, promoted by institutions, associations and companies, is to involve students from local high schools by stimulating their literary vein in the declination of the theme "Cose di Pelle" (Leather things) to tell the story of the places where they live, exploring the world of leather and tanning with freedom, without preconceptions. Amici per la Pelle is another. Although conditioned by the pandemic, the 2020-21 edition saw over **500 children** from 8 schools (from Campania, Lombardy and Tuscany). The competition, now in its tenth edition, is becoming increasingly crucial in accompanying students from the Italian tanning districts in their discovery of leather, thanks to the **involvement** of school directors, teachers, associations and local companies. The theme 2020 - Tattoo Tan - 2020 on your skin - was an invitation to express the feelings experienced during the pandemic through the creative form of leather artefacts combined with the art of tattooing.

LEATHER AND ART

Leather is a versatile material strongly related to the senses and emotions. It is, therefore, an inspirational material for art and design, not just for fashion. It is tradition, history, and culture, expressed in the many ways the sector promotes and communicates itself through collective or corporate initiatives of high social and cultural value. In addition to the actions announced in previous years, in 2021, the CuoinArte exhibition will be added, which will tell the story of the sector through the works of artists (Joan Mirò, Giò Pomodoro, Umberto Mastroianni and Oliviero Toscani, tanner and patron, Alberto Allegri, Antonio Cremonese and Pierre Fernandez Arman), who have used leather and hide for their creations, capturing the essence of natural materials that retain the charm of life, of the environment in which they were developed, of the history they have experienced.



THE CHALLENGES TO 2030

The National Observatory will review and update the contractual job description based on the findings of studies conducted so far and on market trends on the industrial relations front. The sector will also increase inter-branch synergies at the Italian and European levels through active participation and support for various multi-stakeholder initiatives launched at the end of 2021 and will be implemented over the next four years.

CIRCULARITY AND ENVIRONMENTAL COMMITMENT

SECTION 3



THE CIRCULARITY OF THE ITALIAN TANNING

The challenge of climate change is global. The effective achievement of the decarbonisation targets set by Europe requires a strong commitment from all economic operators, who are called to make a transition that will be all the more effective if the system is able to make processes and material flows more efficient, redefining them in a circular way.

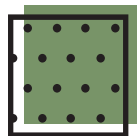
The tanning process fits this model perfectly.

The primary raw material of the tanning process is a by-product, namely a scrap, which an upcycling process (the tanning) enhances into a valuable product that has many uses in

the market. **In addition to hides and skins, the tanning process requires using other natural and transformed resources**, such as water, energy, and chemicals. Furthermore, wastewater, waste and air emissions are also generated during processing.

Each impact is monitored over time through a set of indicators that, analysed in a timeline, measure the effectiveness of improvements adopted. As far as consumption is concerned, three indicators are considered: energy consumption, use of water and the consumption of chemical auxiliaries per square

THE MAIN INDICATORS OF CONSUMPTION



0.90

TOE/1000 m²

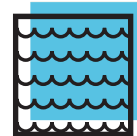
ENERGY CONSUMPTION



2.06

kg/m²

CHEMICALS CONSUMPTION



113

l/m²

WATER CONSUMPTION

TREND CONSUMPTION INDICATORS (SINCE 2003)



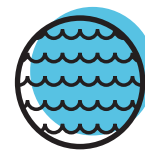
- 37%

ENERGY CONSUMPTION



- 8%

CHEMICALS CONSUMPTION



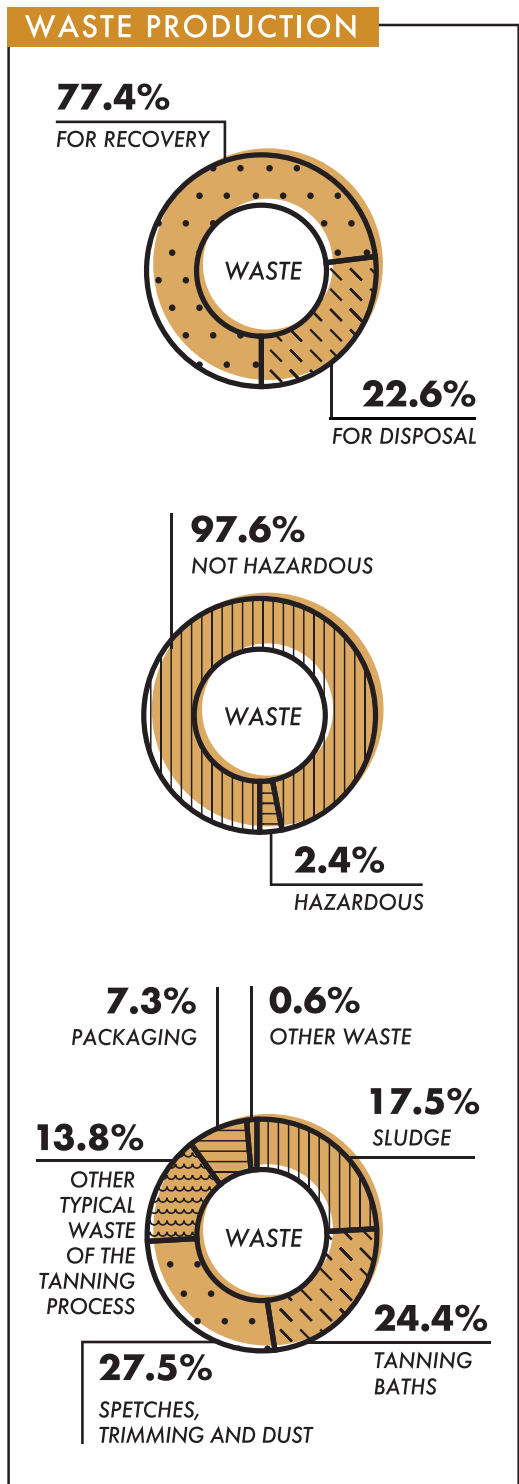
- 15%

WATER CONSUMPTION

meter of finished leather produced. For the analysis, it is essential to note that the KPIs show the results reached by the consolidated sample of companies that each year supports the elaboration of the UNIC report by providing data and information. For this reason, they are not a benchmark and cannot be used as a reference to assess performances of a company, because the variability of the indicators considered from one company to another in terms of, to mention some: type of process, raw materials used, the intended use of the articles.

The trend of the KPIs confirms the results obtained by the representative sample thanks to the investments made over the years and the adoption of good industrial practices to reduce the use of resources and, at the same time, the impact associated with their service.

The commitment to reduce the overall footprint of tanning production is a challenge faced by individual companies and the entire territorial production systems. In this context, the industrial symbioses that have developed over the years and are constantly evolving in tanning districts are fundamental, especially regarding the recovery and valorisation of waste and the treatment of effluents. All wastes classified as Animal By-products of Origin (ABP) are valorised and recovered, as the majority of waste (77.4%) is. The remaining share is delivered for disposal and includes sludges, paint residues, absorbent materials, contaminated packaging or non-recoverable material and a few other types. In 2020, the waste production averaged approximately 1.46 kg per square meter of leather produced (1.10 kg without chrome tanning baths, sent for recovery, 95% of which are water). Only a



WASTE PRODUCTION

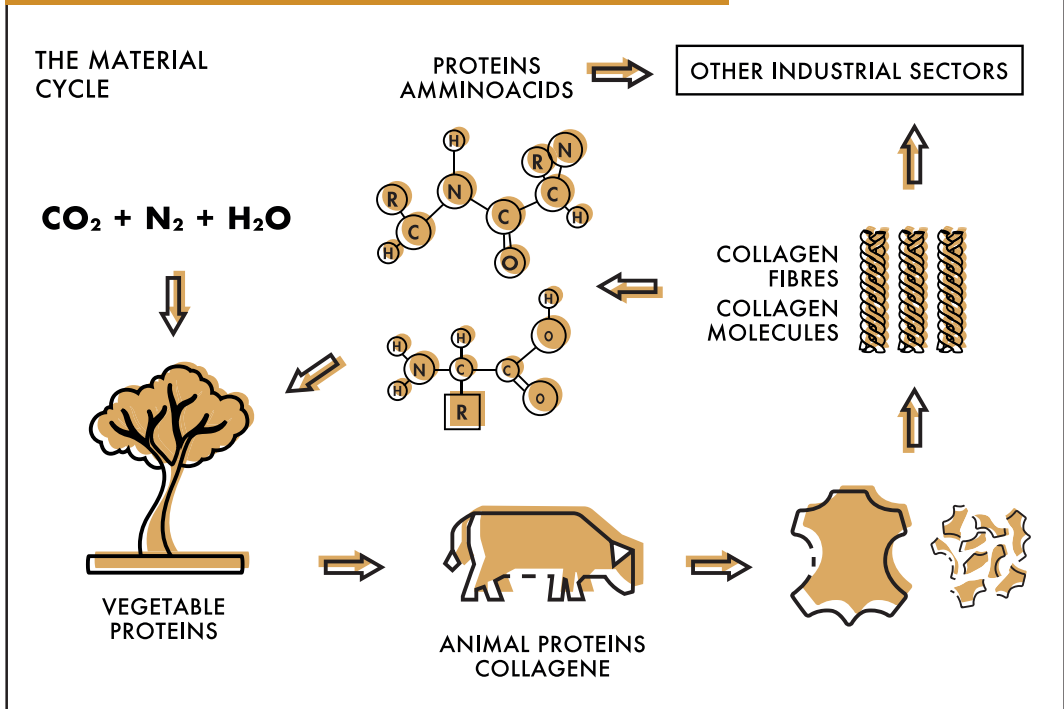


tiny rate of the total waste (2.4%) is hazardous. These categories include mainly packaging residues from dangerous chemicals, waste oil, paint sludge.

Tanning waste recovery processes are an interesting application case of circular bio-economy. From the organic biomasses that originate from leather processing, hydrolysates are obtained. They

have many applications in different production cycles (agriculture, food, construction, cosmetics, nutraceuticals, pharmaceuticals) and effectively replace synthetic products obtained from virgin raw materials. Hydrolysis processes can also be usefully applied to recover finished leather, if the material consists mainly of leather, at its end of life, obtaining bio-material that returns to agriculture as valuable

THE CIRCULAR MODEL OF ITALIAN TANNING



proteins and amino acids. **The agricultural use of waste tanning biomass, which is prevalent today, exemplifies the ideal closing of the loop of natural materials** and plays a fundamental role in the 'Farm to Fork' strategy, relevant for the European Green New Deal, which addresses the challenges posed by the creation of sustainable food systems, by increasing the use of organic fertilisers and biostimulants as a focal point. Another important objective of the European strategy for the circular economy is to extend consumer products life by focusing on durability, upgradeability, reparability, reusability, recyclability, using recycled material or secondary raw materials. Even in this, leather plays a fundamental role, having

all the required characteristics by nature. It is a durable material made from recovered raw materials (raw hides and skins). It is recoverable, as such and as a component of manufactured products. In the latter case, the critical junction is the application of eco-design principles to articles, whose design must be increasingly inspired by the requirement of reparability and disassembling. Footwear, bags, upholstered furniture and car seats designed for long-lasting use can have a second life if the materials are recoverable and reusable or can be transformed into organic matter, useful for other purposes and processes, avoiding their disposal and consequent release into the atmosphere of organic carbon, fixed in natural fibres, as carbon dioxide.

FOCUS 2021

LEATHER MANIFESTO & SMI

At COP26 in Glasgow, leather played a leading role by presenting the *Leather Manifesto*. The Italian tanning industry, represented by UNIC, among the 30 signatories and promoters of the document, drew attention to the important role of natural materials in the fight against climate change. Natural fibres, such as **leather, cotton, wool**, are in fact part of the **biogenic carbon** cycle: as such, they are made up of carbon that has already been in the atmosphere for thousands of years.

FOCUS 2021

TERRA CARTA

About the developments of COP26, in 2021 UNIC - Concerie Italiane signed **Terra Carta**, the strategic document drafted by SMI - the *Sustainable Markets Initiative* promoted by Prince Charles of England, which aims to give fundamental rights and value to Nature, ensuring **a lasting positive impact and a tangible legacy** for current and future generations. To achieve this goal, the initiative identifies and co-opts private sector leaders with **a credible roadmap, backed by recognised scientific** evidence, for greening their business.



ENERGY SUPPLY AND CLIMATE CHANGE

The EU has established a roadmap to 2030 that foresees the reduction of greenhouse gas emissions by 55% compared to 1990. In less than 20 years (2003 is the starting year of the data collection), the Italian tannery has managed to reduce consumption by 37%, thanks to a set of efficiency measures, both management and technical related, which have led to solid mitigation of impacts over time.

Reducing waste is undoubtedly a critical issue, in addition to the replacement of high-consumption equipment (both production and service) and solutions for a lower impact energy supply. The processes carried out in tanneries use thermal energy (51.2% in 2020) to production of hot water and steam and thermoregulation, and electrical power (48.3%) for equipment and plants. 0.5% is the share of energy consumption related to diesel fuel used for internal logistics.

Climate-changing emissions associated with energy supplies in 2020 were 1.92 kg of CO₂ equivalent per square meter of leather produced. Of these, 77% are emissions related

to the use of methane gas, while those deriving from the purchase and use of electricity account for 21.6% of the total. Methane gas is used to fuel thermal power stations and cogeneration plants installed by some tanneries to efficiently produce thermal and electrical energy. In 2020, CHP plants contributed to the company sample's 14% of the TOE (tons oil equivalent).

The purchase of energy from renewable sources, attested by certificates of guarantee of origin, covered an important share of the energy supply in 2019.

USE OF RENEWABLE ENERGY



72.9%
SHARE OF ELECTRIC ENERGY SUPPLIED



10.5%
SHARE OF TOTAL ENERGY CONSUMPTION

AIR EMISSIONS



OF LEATHER PRODUCED



1.92 kg
CO₂ eq/m²
(-3% COMPARED TO 2019)

39 g/m²
VOC EMISSION FACTOR
(-11% COMPARED TO 2019)



WATER

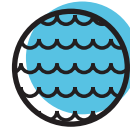
IS AN IMPORTANT RESOURCES

After leather, water is the essential raw material in tanning.

Water is used in all “wet” phases, which take place in the drum in aqueous solutions. These processes require water with well-defined quality characteristics and a high degree of purity. For this reason, the water is mainly supplied from groundwater and partly from industrial and/or civil aqueducts. This necessity represents, to date, one of the significant limitations to the re-use and recycling of water in tanneries.

Water is the reaction driver through which the stabilisation of collagen fibers and their transformation into finished leather can be achieved. Only a few water rates (4.8% in 2020) remain in leathers and processing waste as moisture or is lost through evaporation. The central part becomes wastewater and is sent to treatment plants. As water is actively involved in the processes, it significantly changes its quality characteristics during its use in the tannery, becoming contaminated with chemical substances that are not absorbed by the leather or that develop during processing. Therefore, the wastewater generated must be appropriately treated to remove pollutants and return to the environment without undermining the conservation of biomes. Here too, the “collective” approach has proved to be an effective solution. The Central Treatment Plants located in the tanning districts are specialised in the treatment of industrial tanning wastewater and guarantee very high levels of reduction of the primary pollutants.

REDUCTION OF POLLUTANTS IN WASTEWATER



-97.8%
COD



-99.4%
SUSPENDED SOLIDS



-99.5%
CHROMIUM III



-96.4%
TOTAL NITROGEN



-22.1%
SULPHATES



-43.5%
CHLORIDES

(mean value of central treatment plants in Tuscany and Veneto)

THE ROLE OF **INNOVATION**

Innovation is a core element of sustainability.

It is a broad concept, that primarily concerns technologies and digitalization, but also innovation in organizational models to support companies in using information, data, skills, and tools, putting them into a system as a driver of development.

It's a field in which the Italian tannery has already taken steps, especially in relation to technological innovation linked to production processes and industrial automation, but not only.

Several companies have invested in digital transformation and product research aimed at long-term sustainable growth and a more effective response to rapid market changes.

The need for research and innovation in the sector is linked to developing an extremely extraordinarily varied and ever-changing product range, which requires constant customization of technological solutions.

The increase in the cost of raw materials also

makes process efficiency particularly important. Automation and digitalization are two important drivers, which go hand in hand with the advantages in terms of the consumption of new machinery and technologies.

Automated plants equipped with sensors to monitor processes, for example, can not only guarantee greater production flexibility, but also reduce the use of water, energy, and chemicals and, at the same time, limit the risks in the workplace related to the human/machine interface or exposure to chemical products.

A showcase of the results of innovation applied to leather has been presented in 2021 at Lineapelle, the most important leather fair held in Milan, in a dedicated area called "A new point of materials" where innovative and sometimes experimental materials, together with new technologies and intelligent machines gave life to innovative and responsible applications of leather.



CHALLENGES TO 2030

The circular model of the Italian tannery is already advanced regarding the recovery of organic material waste, but not only. In the coming years, also in line with the objectives of the national strategy for the circular economy, it will be important to assess possible recovery and re-use of water and to identify a treatment process for sewage sludge that can enhance both its material and energy content.

The role of supply chain synergies and the ability of the entire value chain to pool research and innovation will be central to the ecological transition, but also to the digital change.

Chemistry and technology will play an important role in rationalizing the use of resources and identifying innovative manufacturing processes, also by increasing the use of bio-based chemicals and reducing the use of hazardous substances.

SUSTAINABLE MANAGEMENT OF RAW MATERIALS

SECTION 4

11 SUSTAINABLE CITIES
AND COMMUNITIES



15 LIFE
OF LAND



17 PARTNERSHIP
FOR THE GOALS



THE SUSTAINABILITY OF **RAW MATERIAL**

Traceability, being the collection and the sharing of information along the entire value chain, is the primary option for greater transparency.

The main raw material to produce finished leather is raw hides and skins, almost all from slaughtering animals for food purposes. Therefore, **the whole value chain starts from the breeding** to arrive at the tannery. In a **complex articulation of the supply chain** from here to manufacturing companies and the final consumer.

Raw hides and skins are a by-product, as clearly identified by the legislation that regulates the use of animal-origin products not intended for human consumption ([EC Reg. 1069/2009](#)). This element has two effects that affect the traceability of raw hides and skins:

- rigid market dynamics that do not allow tanneries to influence the demand and supply of raw hides and skins
- severe difficulties in finding the information available on the animal from which the rawhide/skin originated at the slaughterhouse.

The current legislation obliges the slaughterhouses to transfer information relating to the animal (Country of breeding, Country of slaughter, etc.) on meat and other products intended for human consumption, but not to associate this information with other by-products, including raw hides/skins. **However, the mandatory commercial documents in Europe and the health certificates for imported raw hides/skins**, which accompany the by-products of animal origin, allow us to trace back the single batch of raw hides and skins to the slaughterhouse.

Given the growing importance of the guarantee of ethical supplying for the final customer, Italian tanners have long been committed to promoting and improving the traceability of raw material and related information: quality and characteristics of supplying, respect for animal welfare, and no deforestation processes in the farming activities.

FOCUS 2021

UNIC AND ICEC PARTNERS WITH WWF FOR PROMOTING AND ENHANCING THE SUSTAINABILITY OF ITALIAN LEATHER

In 2021, **UNIC – Concerie Italiane**, the **ICEC** certification institute and **WWF (The World Wildlife Fund)** joined forces to strengthen the leadership of **Italian leather** in sustainability, implement new strategies to improve **environmental performance** and encourage dialogue to share the results with the global leather industry. The partnership aims to enhance **ESG practices** (ecological, social, and governance), focusing on **combating deforestation** and improving the traceability of raw materials, environmental protection and **water management**.

UNIC
CONCERIE ITALIANE



WWF

ACTIVITIES AND PROJECTS

Given the “systemic” nature of the issue, the collective initiatives in the sector carried out by UNIC have had a particular impact over time, which flanks and supports the good practices adopted by the individual tanneries according to their specific production and process characteristics.

The first step was the publication in 2015 of “**UNIC manifesto on Animal Welfare**”.

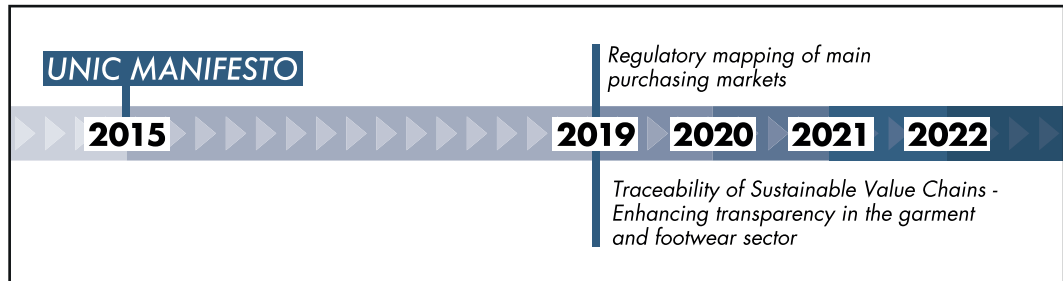
The Italian tannery formally committed itself to promote the [OIE](#) principles (World Organization for Animal Health) based on the 5 fundamental freedoms for animals. This was followed in 2019 by **mapping the legislation in the central supplying Countries for hides/skins**, both at the raw and semi-processed stage, in collaboration with the Department of Animal Welfare at the University of Milan (Veterinary Medicine). The research, which

ended in 2020 with a summary report, made it possible to collect and analyse the actual conditions of animal welfare in the most critical supplying markets for the Italian tanning industry. Two other important international multi-stakeholder initiatives that are still in progress started in 2019, too, aimed at getting maximum transparency in the context of the information exchange along the supply chain. The project “*Traceability of Sustainable Value Chains - Enhancing transparency in the garment and footwear sector for informed and responsible choices*” aims to strengthen sustainable consumption and production models for clothing and footwear by defining and implementing tools that ensure transparency and traceability in the supply chain. Promoted by the *United Nations Economic Commission for Europe (UNECE)*, with its *Center for Trade Facilitation and e-Business (CEFACT)* and the *International Trade Center (ITC)*, numerous government partners, academic associations, and companies participate. As part of the initiative, which should end in 2022, standards,

FOCUS 2021

BLOCKCHAIN TRACEABILITY PILOT PROJECT

This pilot project for leather involves the practical application of blockchain technology to the traceability of information through the active involvement of all parties along the value chain, applying the principles and standards defined through the implementation of a technological solution. The use of a Blockchain platform will allow the transparency of information relating to traceability by uploading the information in a secure environment with strict permissions to access the data consultation and their visibility. Within the pilot project, the origin and sustainability statements relevant to the footwear industry will be assessed through the involvement of the project partners, who will collect and upload the required data on the platform based on the model developed by UNECE. Following the assurance models identified in the project and the UNECE guidelines, the partners will provide documents to substantiate their claims (e.g. certifications, inspections/audits and reports, shipping documents, invoices). The required information and data will align with the partners to upload the data to the Blockchain platform.



guidelines, and valuable tools have already been defined to promote the traceability and transparency of supply chains. For leathers, the analysis was conducted focusing on the complex supply chain value of the food chain. The piloting phase is currently underway (see box). The “*DCF (Deforestation and Conversion Free) Leather*” project is dedicated to contrasting deforestation and land conversion, focusing on bovine hides from Countries in the Amazon biome area. The collaboration among UNIC, ICEC (Quality Certification Institute for the Tanning Industry) and the *National Wildlife Federation*, a US NGO, aims to define and develop a certification standard to guarantee that hides come from an animal not raised in farms involved in processes of deforestation. In any case, the key point is the commitment of all levels of the value chain. Efforts to improve the traceability of the supply chain will be more effective only if each actor is directly involved in the process, mainly breeders and slaughterhouses, but also commercial intermediaries, that are the most critical nodes for the information transmission.

CERTIFIED TRACEABILITY

Certifications play a fundamental role to ensure transparency and credibility. The [ICEC TS410](#) and [ICEC TS412 schemes](#) are practical tools

for certifying the traceability of raw and semi-processed hides/skins through an accurate mapping of all the information available on the Countries and places of slaughter and breeding of the animals from which the hides/skins come from. On the topic of deforestation, the “[DCFL - Deforestation and Conversion Free Leathers](#)” scheme is available to map hides coming from Brazil and other South American Countries. The scheme extends the verification of traceability requirements to the adoption of best practices, which supply chain operators must adhere to to ensure the sustainability of products, with particular regard to the exclusion of supplies from areas with suspected deforestation and improper use of land.



THE CHALLENGES TO 2030

Proceeding on the path of increasing transparency of raw materials, spreading within companies increasingly effective systems of due diligence, control and traceability, including information, to account for stakeholders requesting more significant guarantees in terms of animals welfare and protection of ecosystems.

WITH THE **COLLABORATION** OF THE FOLLOWING TANNERIES

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