

A close-up photograph of white leather with a pebbled texture, showing the intricate grain and some shadows from the folds. The leather is the central focus of the image.

Social and Environmental Report

the European leather industry

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Introduction

This first Social & Environmental Report of the European Leather Industry has been elaborated within the context of the SER III Social Dialogue Project, implemented by the social partners of the European Tanning Industry: COTANCE and industriAll-European Trade Union.

The document represents a novel approach for the entire European leather industry; no other sector involved in the leather value chain has ever prepared such a comprehensive analysis of the environmental and social factors that are involved in the economic growth of the industry at continental level.

The report takes into consideration the main elements that are linked with the sustainable development of European tanneries. The social partners have agreed on the guiding principles leading the European tanning industry toward its sustainable development. Key strategic concepts illustrated in the document concern the ecological role of tanneries that base their production on by-products of renewable origin. They build their leadership on a mix of tradition and innovation and therefore require a particularly skilled workforce.

The document, moreover, presents in detail the structure of the European sector and, thanks to the

contribution of several national industrial associations (representing 90.9% of European tanneries and 76.6% of the workforce), provides key environmental and social indicators linked with the industrial activity.

The analysis of social and environmental indicators demonstrates that tanneries in Europe are increasingly committed to the ethical and social aspects of their business, and that, through continuous investments, they have been able to ensure substantial improvements in process efficiency and in pollution prevention and control.

European leather production historically positioned itself at the top end of the market, constantly seeking to improve quality and to innovate its offer to the market.

All the efforts made by European tanneries over the years have resulted in improving the sustainability of their production. The excellent results achieved deserve to be valued more by stakeholders and better incentivised through measures encouraging new and future investments. The environmental and social values demonstrated by European leather help to keep European tanners ahead of international competition.



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Social and environmental values of the European tanning industry

The tanning industry provides a high added value material to a number of value chains, notably in the fashion, furniture and automotive sectors.

The raw materials of the European tanning industry are hides and skins of which over 99% are derived from animals that have been raised primarily for wool, milk and/or meat production. This fact clearly illustrates **the ecological role of tanneries**; recovering a by-product, which in the absence of the leather industry would have to be disposed of, thus demonstrating similarities with the recycling industry.

European tanneries base their **leadership** on a mix of **tradition** and **innovation**. They keep alive a number of traditional artisan processing skills that ensure the product's high quality reputation, but invest in technological and non-technological research and development in order to remain at the forefront of

product and process innovation.

Education and training, modern tanning machinery and efficient chemical auxiliaries, process automation and rationalisation, state of the art environmental protection and pioneering social responsibility all represent an integral part of the strategies of Europe's tanneries towards **sustainable development**.

Tanneries are capable of introducing continuously to the market new products and styles, and new applications for different end uses, but at the same time Europe's comparative advantage lies in that its tanners include in the value offer of their leathers the intangibles reflecting their response to the global challenge of sustainable development (Economic, Environmental, Social) as set out by Brundtland in 1987 (Our Common Future, WCED).

From an economic point of view, leather is a key

material, generating wealth and jobs in a variety of value chains in which it is often the main constituent material, notably in shoes, clothing, leather goods, furniture, upholstery for cars, boats, aircraft, and many other items in daily use.

The environmental values of leather production have been summarised above: leather is a valuable material of renewable origin, produced through increasingly cleaner processes, consuming less energy, less water, less chemicals than in the past and reaching excellent levels of reuse and recycling of the residues produced.

Inclusivity is another key aspect of the European tanning sector that underpins the social dimension of sustainability. Workers in Europe's tanneries are more gender balanced than in other industrial sectors, and well distributed among different age groups. Some

excellent examples throughout Europe show a perfect integration of different nationalities in tanneries and tanning clusters.

European tanneries are, however, at risk. Their competitiveness is in danger of disappearing in the absence of policies that foster a level playing field at international level, notably with regard to competitors in emerging economies. Competition from countries where social and environmental standards are poorly enforced causes socio-economic damage equivalent to dumping. **Trade reciprocity** is another element of the **fair competition** agenda of European tanners. Trade barriers related to access to raw materials in many third countries, such as export taxes and export restrictions on raw hides and skins, and on the intermediate material 'wet blue', severely distort prices and competition on the global leather market.

Overview of the European leather industry



The EU leather industry is composed of **a series of different sectors**, starting from the hides and skins markets, which supply the tanning industry with raw materials sourced from abattoirs dedicated to the production of meat for human consumption, and concluding with the production of manufactured consumer goods made of leather. Some of the sectors are highly industrialised, while others present a marked degree of craftsmanship and for yet others, the core business is trade and supporting services.

Strictly speaking, the leather industry refers to the tanning sector. **Leather is the intermediate product** of the industry, and this material represents the major input for most downstream sectors and confers their competitive advantages. EU leather is known to have the highest value added potential to the products where it is incorporated. The advantages of using leather are several: the most important are its ability to breathe, its flexibility and adaptability to **a high variety of applications**. Leather is produced on demand for

THE EUROPEAN LEATHER INDUSTRY IN 2011

Sector	Companies	Employees	Turnover (000 000 €)	Extra-EU Export (000 000 €)
Tanning	1,783	34,504	7,750	2,307
Footwear	11,692	274,296	13,905	4,700
Leather goods	10,710	83,464	9,541	4,066
TOTAL	24,185	392,264	31,196	11,073

Source: Eurostat, Entrepreneurial Associations

each particular application such as footwear, clothing and gloving, leathersgoods, furniture or car, yacht and airplane interiors. Tanners design the production process for conferring the specific aesthetic and performance characteristics required by the numerous end-use sectors. The present analysis (besides the tanning industry) is focused on the two traditional main destinations of leather: footwear and leather goods.

Europe has a **very long tradition** in the production of leather, footwear and leather goods. Consequently all these industries are present in the region and each of them also plays a relevant role on the international marketplace.

Today, under the above-mentioned considerations, the EU leather industries are composed of nearly **24,000 companies** and **400,000 employees**. The total yearly **turnover** is reported to be more than **31 billion Euros**, comprised of the following markets: 3.8% EU member States' sales in their domestic market, 60.7% intra-EU trade, 35.5% extra-EU exports. The EU consequently

comes out as the most prominent market by far for European leather, but the extra-EU playground is also relevant, notably with the increasingly important development of new consumer markets in emerging economies and the relocation of many customers to lower cost countries.

If we enlarge the view and consider also the other leather manufacturing segments (upholstered furniture, garments, car interiors, etc.) and the allied sectors (chemicals, machinery, etc.), the whole industry in the EU is estimated to be composed of more than 40,000 companies, employing over 500,000 people, with a total turnover of 50 billion Euro.



The **roots** of the European tanning industry can be found **in very ancient times**. The ice-man found in the Austrian Alps was found to be wearing leather. More recently, a rather large tannery was discovered in the ruins of the city of Pompei (Italy), destroyed by the Vesuvio volcano more than two thousand years ago (August 24th 79 b.c.). Moreover, the importance of the industry has always been prominent for the European economy as, even at the beginning of the XXth century, the tanning sector was still one of the biggest industries of the continent.

Even if its share at global level has been declining in recent times due to the growth of the sector in certain emerging economies, the European tanning sector is **still the global leader** both in terms of:

- (a) **turnover**, covering 26,7% of the world total (after China, accounting for 29,5%);
- (b) **overall quality** level reached by the industry

through product and process innovation; in particular with regard to **technology** (through a constant research on the processing cycle and product performance), **environmental commitment** (chemicals, water, solid waste and air emissions consequent to the tanning process are fully treated and recycled for more than 90%), **social commitment** (outstanding relationship with the workforce and a pioneering social dialogue with corresponding unions have improved the levels of education and training of human resources and led to a constant reduction of injuries), **design and style innovation** (very high importance is given to the study, the creation and the development of fashion trends).

COMPANIES AND EMPLOYEES According to last annual data available (2011), at present the sector is composed of nearly **1,800 companies** and **34,500 workers**. The following graph outlines the **trend** in both measures over the last decade. They have been **on the decrease**: -25% for the number of companies, -36% for the number of employees.

The sector has traditionally been composed of **small and medium sized enterprises** mainly, but big companies can be found as well. The average size of a EU tannery is currently 18 people per enterprise. However, it is important to notice that in Y2000 the average was 24 people per tannery with a continuous decline in the following years. This tendency reveals the resilience of smaller installations in times of adversity. In other words, small and medium sized companies appear to have given a better response to the big changes characterising the world leather market in the first ten years of the new millennium.

From this point of view, the European national industries present different characteristics, mostly depending on their productive specialisation. The most important tanning sectors of Southern Europe are mainly composed of small and medium-sized enterprises. On average: Italy displays 14 employees per company,

Spain 23, France 32, Portugal 38. These countries are mostly specialised in the production of leather for the fashion sectors. Fashion demands a craftsmanship approach that larger companies have more difficulties in providing. Conversely, the most important tanning sectors of Central and Northern Europe, focused on the upholstery destinations (furniture, cars...), present higher average sizes of companies as economies of scale play a key role in these particular marketplaces. On average: Austria reports an average of 295 employees per company, Netherlands 83, Poland 82, Sweden 60, UK 55...

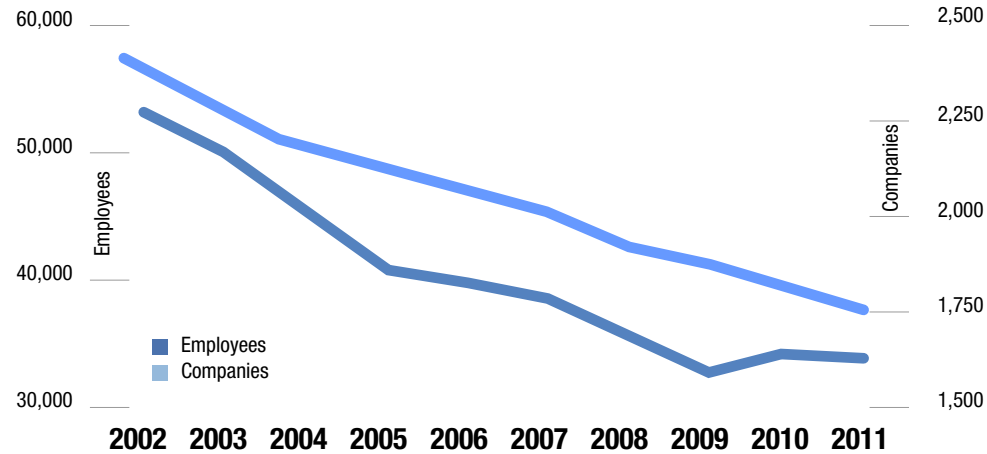
PRODUCTION/TURNOVER In 2011, the total turnover of the EU tanning industry was **7.8 billion Euro**, corresponding to production of **224 million sq.m. of finished leathers** and about 44 thousand tons of sole leather.

The overall tendency of the EU-27 tanning production and turnover during the 70s, 80s and 90s was rising, until the all-time **peak of 2000-2001**, when the sector's production exceeded 11 billion Euro as total value and 370 million sqm in volume. Those years represented the consolidation of Europe as world leader of the sector, in spite of the proliferation of trade barriers in many extra-EU markets, which are also at the origin of the difficulties suffered during the following years.

As a matter of fact, the period after the 2001 peak registered a **gradual and continuous decrease**, with the only exception of 2006 (2007 in value). There are many elements to be considered in order to explain the downward trend; apart of the unfair competition exerted by many trading partners with regard to the access to leather markets and the access to raw material markets, some refer to general economic factors (also affecting the tanning industry), some are sector-specific, in some cases regarding a single segment of production or a single national industry.

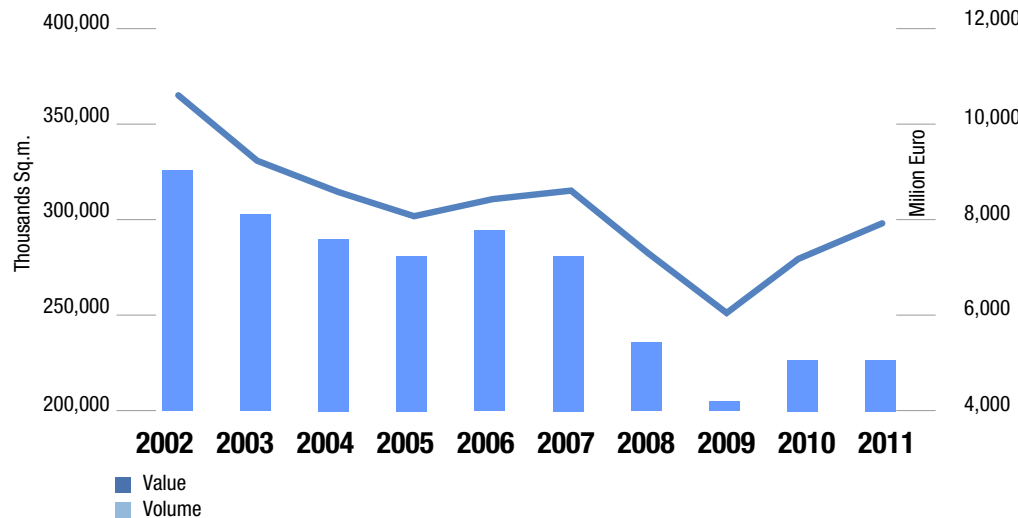
Among the above mentioned **general economic factors**: the economic crisis that followed the terrorist

THE EUROPEAN TANNING INDUSTRY - Number of companies and employees



Source: Eurostat, Entrepreneurial Associations

THE EUROPEAN TANNING INDUSTRY - Production of leather (volume and value)



Source: Eurostat, Entrepreneurial Associations



attacks on the twin towers in the US and the spreading of **animal diseases** (BSE, FM, etc.) in 2001, the change to the **Euro currency** in 2002, the unfavourable **exchange rate** between the Euro and the USD (affecting extra-EU exports in 2002-2005 and 2007-2009) and the **credit crunch crisis** (2008-2009).

On the **sector specific side**: the **fall of EU leather footwear production** from 2002 onward, the rise of **export barriers on raw materials** in some of the main extra-EU producing countries (e.g. Brazil in December 2000, Russia and Ukraine in 2001), the **global consumption slowdown** of leather garments (from 2002 onward) and leather upholstered furniture (from the end of 2006 onward), the **decreasing availability of European raw hides and skins** (due to a continuous decline of the internal production provoked by the reform of the Common Agricultural Policy (CAP) and the simultaneous increase in extra-EU exports), the development of some extra-EU tanning countries in the medium-to-low product quality ranges, the continuing shift of leather product fabricating industries to low cost labour countries.

Data show that the current **EU volume production of leather is 30% less than in 2002**, while the equivalent turnover similarly fell by 25% in the same period (fluctuations in raw material prices also have an impact on turnover). It is highly important to remark that a notable share of that loss was recorded during the recent financial crisis (2007-2009): as a matter of fact during the periods 2007/8 and 2008/9, the fall was respectively -27.6% and -30%. But it is not possible to deny that, apart from this period, the medium term tendency was on the decrease for the EU while it was on the rise for extra-EU competitors.

MARKETS The main geographic destination for European leather is undoubtedly the **EU-27 internal market**, that currently absorbs over **2/3 of all EU leather sales** by the sector.

But, conversely, the **importance of extra-EU markets is remarkable and slightly increasing** for the

industry. Extra-EU exports worth some 2.3 billion Euro, accounted for 30% of the total turnover of the industry in 2011, while in 2002, this share was 18%. This is no surprise if we consider that a large part of the leather manufacturing sectors (i.e. the clients of tanneries) have moved outside the EU borders during the last ten years (Asia, mainly).

As a clear consequence, the **Chinese area** (including Hong Kong) is, by far, the main extra EU market for European leather, with a share of 36% of total exports (30% in 2002). After the recent recovery, **US** clients actually rank 2nd with 7% (but it was 18% in 2002 with a total loss of nearly 50% in terms of absolute value). Next to that, some close non-EU **Mediterranean Rim countries** have benefitted from the relocation strategies of European leather articles manufacturers (mainly shoes and leather goods producers): in particular, Tunisia (7% on total extra-EU exports) and Morocco (currently 3%). Another important area for export of EU finished leather that can be explained in the light of the clients' search for lower labour costs (as per the above mentioned Mediterranean countries) are the **Balkans**: Croatia (6%), Bosnia and Herzegovina (4%), Albania (2%), Serbia (2%).

If we consider the internal market, **Italy is the most important destination**, among all EU member countries, for finished leather produced in Europe.

LOCALISATION IN THE EU Italy also traditionally represents the main tanning country in the European Union. Its share of total production is **around 62% in terms of total EU tanning turnover** and 60% in terms of volume in 2011. There has been just a small increase compared with 2002, as in that year the country accounted for 60% in turnover and 57% in volume.

Spain ranks 2nd, covering **10/11%** (in volume and value) and showing a fall during the last decade (when its share was 12/13%).

Austria, France, Germany and **United Kingdom** account for **around 3% to 6%** of the total. There were no significant changes for them when compared with ten years ago although the product mix (end-use

destination) may have changed. With the exceptions of Luxembourg or Malta, all the others EU members still record the presence of tanners in their own territories.

DISTINGUISHING FACTORS IN THE GLOBAL MARKET

European leather production has always been very flexible, processing all the main animal origins and serving all the main client manufacturing end uses. The analysis of production in terms of **animal typology** reveals that the main origin processed by the industry has always been **large bovine hides** (71% on total), followed by **sheepskins** (14%), then **goat skins** (8%) and **calf skins** (6%). The remaining animal skins processed (principally reptiles, pigs, deers...) cover a very small part of the industry (less than 1%) and can be considered as niches. This segmentation, that is strictly linked to the meat industry, has never shown important variations.

The principal **destination use of leather**, not only in Europe, has traditionally been uppers for the **footwear**

sector, that is still the first manufacturing client for EU leather (41% on total). Despite the biggest fall in terms of market destination in the recent years, the furniture/ car **upholstery** industry is the second most important utilisation ; it is divided into furniture (17%) and car interior (13%). **Leather goods** take up 19% of Europe's leather production, while **garments** presently only absorb 8% (leaving 2% for the remaining niche segments).

As mentioned, the European tanning industry is a world leader in terms of quality, and quality means value. EU leather covers the top ranges of production in all the main specialisations and uses. In the fashion area, top ranges mainly mean the best design, style and creativity in the world; in the upholstered sectors (beside the mentioned innovation factors) they comprise the best reliability, standardisation and performance that can be found at a global level in top range passenger cars. These are key elements difficult to find on mass markets. Success for a European tanner is increasingly linked to his capacity to be efficient and innovative.

Introduction to Social and Environmental indicators

All the social and environmental indicators and data described in the following pages have been obtained through the active cooperation of seven national leather trade association members of COTANCE, representing the tanning industries of Italy, Spain, France, Germany, United Kingdom, Sweden and Romania.

The work of the associations mainly consisted of elaborating social and environmental data and indicators at national level, carrying out surveys and interviews with their affiliated companies, on the basis of a specific questionnaire structured according to the economic, social and environmental indicators agreed by the sector's EU Social Partners in their 2008 Framework Agreement (Standard for Social & Environmental Reporting in the

European Leather Industry).

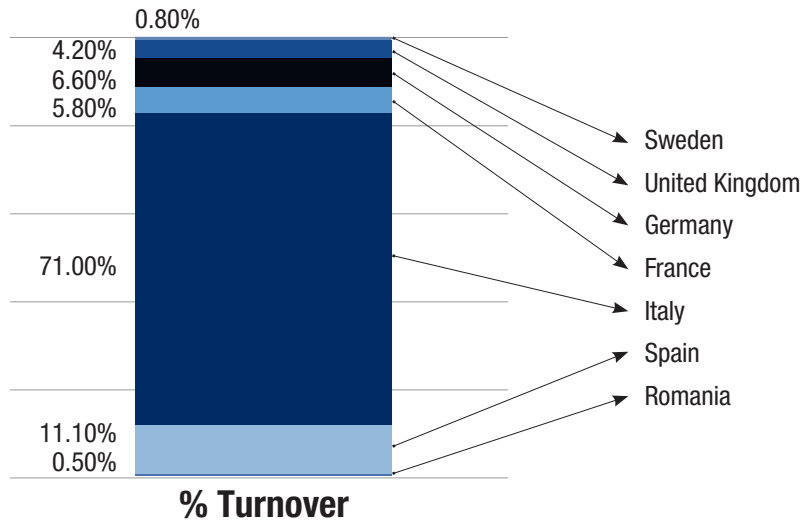
This has allowed the elaboration of data deriving from a highly significant sample, representing 90.9% of European tanneries, 76.6% of the workforce and 87.8% of the turnover.

Social and environmental indicators obtained at national level have then been weighted where appropriate - so as to reflect the relative importance of the various national sectors - and aggregated at European level.

The present chapter, therefore, provides a detailed description of the indicators regarding both the social and the environmental performance for the years 2010 and 2011.

figure 1 - SAMPLE STRUCTURE: PERCENTAGE ON VALUE OF PRODUCTION

87.8% of European tanning turnover is represented in the report. Italy (71%) and Spain (11.1%) are the two main contributors to the value of production of the sample

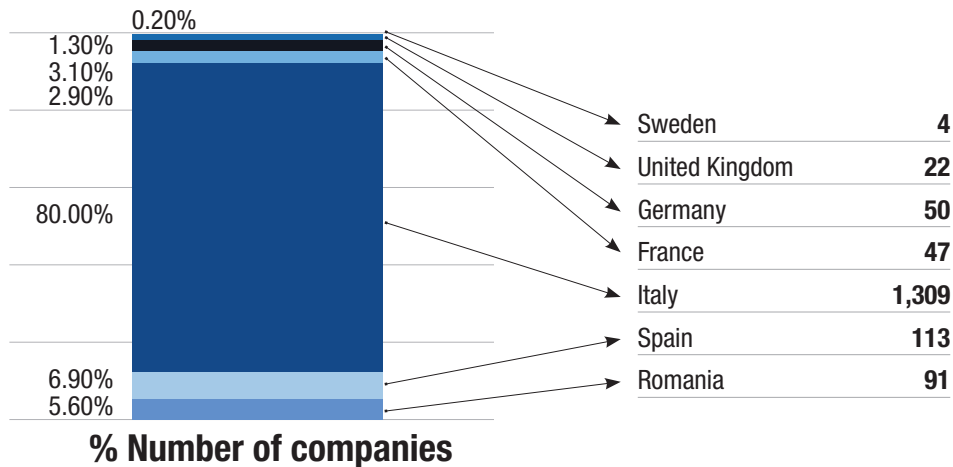


CHARACTERISATION OF THE SAMPLE

As asserted in the previous paragraph, indicators and data elaborated in the present report represent 90.9% of European companies, 76.6% of the workforce and 87.8% of the turnover. In this exercise the sample has been constructed with the main aim of not only being representative in terms of number of companies and workers, but also reflecting the main characteristics in terms of products, organisation of production and markets. Criteria used to define the sample structure also included aspects such as geographical distribution (i.e. organisation in tanning clusters), production per animal type and per end use market segment. Having regard to the countries and sectors that contributed their data to the present report, it can be said that the sample is representative and that it represents very well the variety of the European tanning industry, where Italy plays a major role, comprising 71% of the turnover of the sample, 80% of the companies and 68% of the workforce.

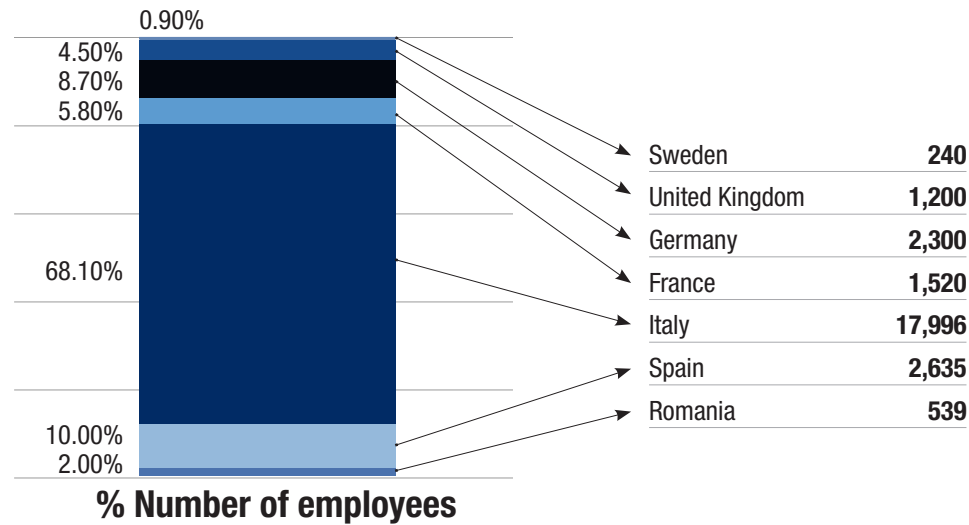
figure 2 - SAMPLE STRUCTURE: PERCENTAGE ON NUMBER OF COMPANIES

Over 1,600 companies are represented in the report (90.9% of the European total). With more than 1.300 tanneries, Italy's share in the sample is 80%



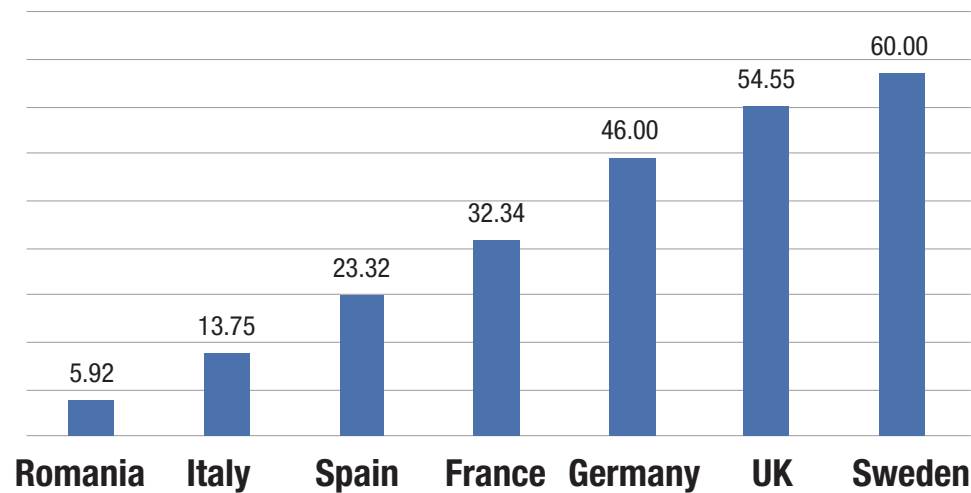
As shown in Fig. 4, the sample mirrors the sector in one more of its particular characteristics: small company size. The European tanning sector is typically composed of small and medium sized enterprises; this is in some cases a competitive advantage for responding to the changes seen in the markets over time. The average size per country furthermore provides an indication of the market destination of the leathers produced: Italy, Spain and France are on average more specialised in fashion, where a smaller size ensures corporate flexibility. On the other hand, bigger average sizes are seen in central and northern European countries of the sample (United Kingdom, Germany, Sweden), where a more industrial approach has prevailed with the automotive sector as a major client. Production per animal type in the sample (Fig.5) reflects perfectly the characteristic distribution of European production, where adult bovines, calves, sheep and goats, compose the largest share of raw materials. A residual share of production is based on other animal types (such as pig skins, deerskins and noble furs), which constitute significant shares of production in certain countries. Again, mirroring the European reality, the end use market segment of leathers captured by the sample is predominantly footwear, followed by upholstery (furniture, car interiors & others) and leathersgoods (Fig. 6).

figure 3 - % SAMPLE STRUCTURE: PERCENTAGE ON NUMBER OF EMPLOYEES



76.6% of European tannery workers are employed in the seven countries surveyed, totalling over 26,000 jobs

figure 4 - SAMPLE CHARACTERISATION: AVERAGE COMPANY SIZE



European tanneries are mainly small and medium sized enterprises; average company size ranges from almost 6 to 60 workers in the countries of the sample

figure 5 - SAMPLE CHARACTERISATION: PRODUCTION PER ANIMAL TYPOLOGY

Adult bovines, calves, sheep and goats represent 99.4% of the total raw materials processed. Italy absorbs and processes most raw hides and skins in Europe

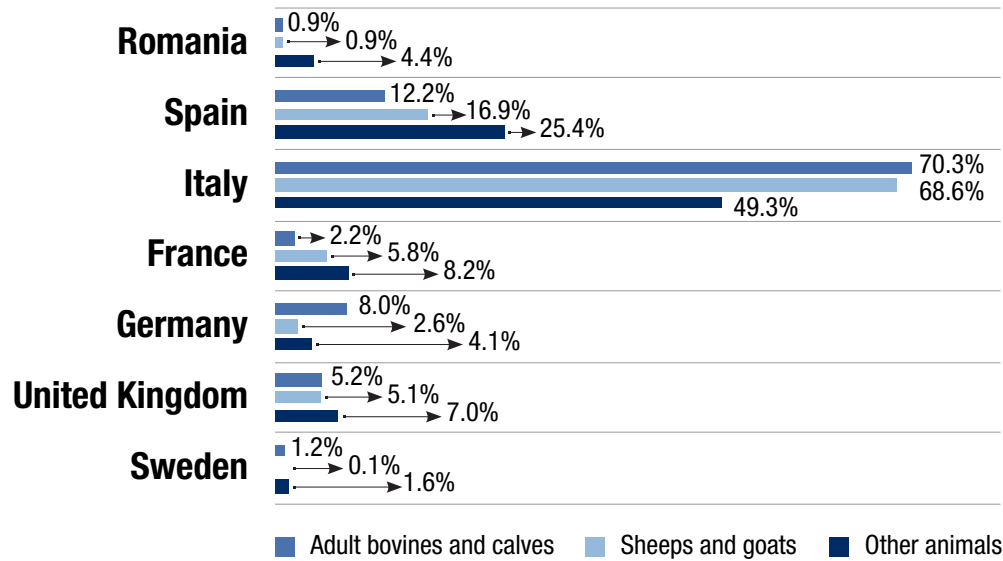
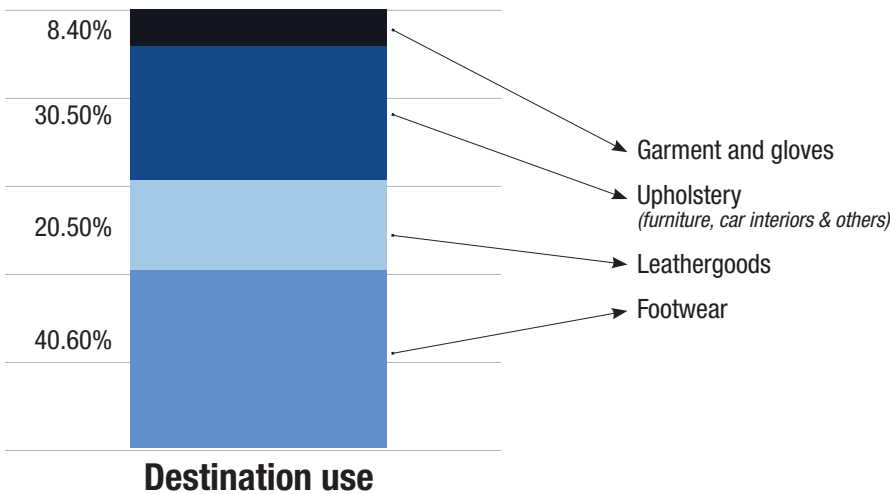


figure 6 - SAMPLE CHARACTERISATION: PRODUCTION PER DESTINATION USE

Footwear represents the main end use of leather produced by the companies in the sample, followed by upholstery and leathersgoods





Social indicators

Human capital is essential for the European tanning industry. The combination of experience and youth, i.e. skilled workers and young applicants, represents the key asset on which the competitiveness of the sector is based.

Tanneries in Europe are increasingly committed to the ethical and social aspects of their business. They understand this development as a means of enhancing and strengthening the relationship with their stakeholders; workers, customers, suppliers, bankers, public authorities, civil society and territories.

The present chapter of the report provides a picture of the social dimension of the European tanning sector, on the basis of a selection of indicators: Job categories, Contractual types, Age brackets, Education, Seniority, Territorial origin, Gender equality, Membership in Trade unions, Accidents and Employee benefits, such as arrangements for sickness leave.

The situation that emerges from the analysis of the information collected shows a sector that is firmly rooted in the territory and deeply committed - in collaboration with partners and public authorities to combining industrial growth with the continuous improvement of working conditions, the generation of wealth in the territory and the enhancement of the quality of life in local communities. The social situation within the tanneries is characterised, above all, by the fruitful cooperation between the social partners. Apart from the institutional role that the representative bodies of the social dialogue play during collective negotiations, both sides of the European tanning sector also provide the example of how a close cooperation contributes to reinforcing Europe's leather industry against global competition, and to promoting the social values linked to European leather on global markets.

figure 7 - JOB CATEGORIES 2010 - 2011 (%)

In 2010 and 2011 the distribution of job categories saw a prevalence of blue collars with low and high specialisations

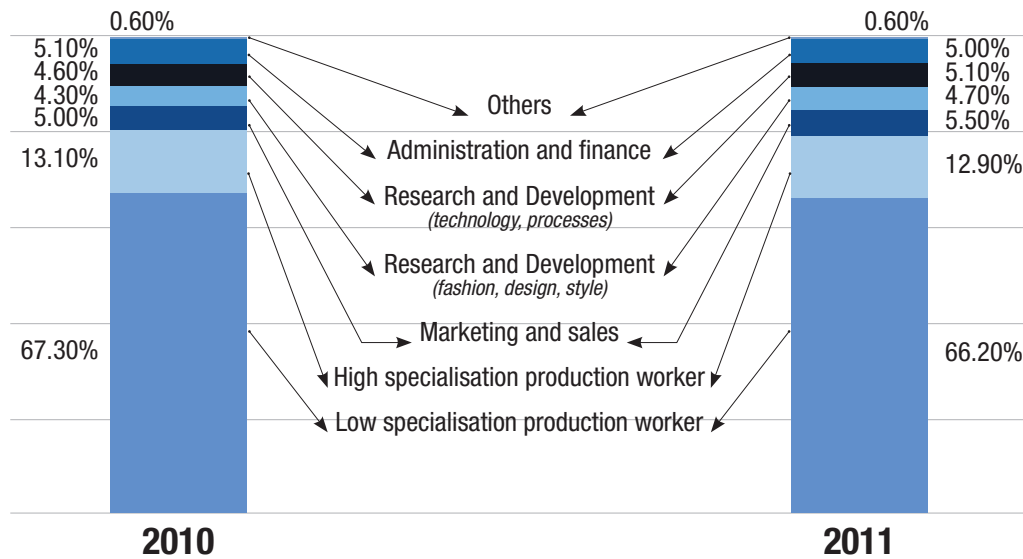
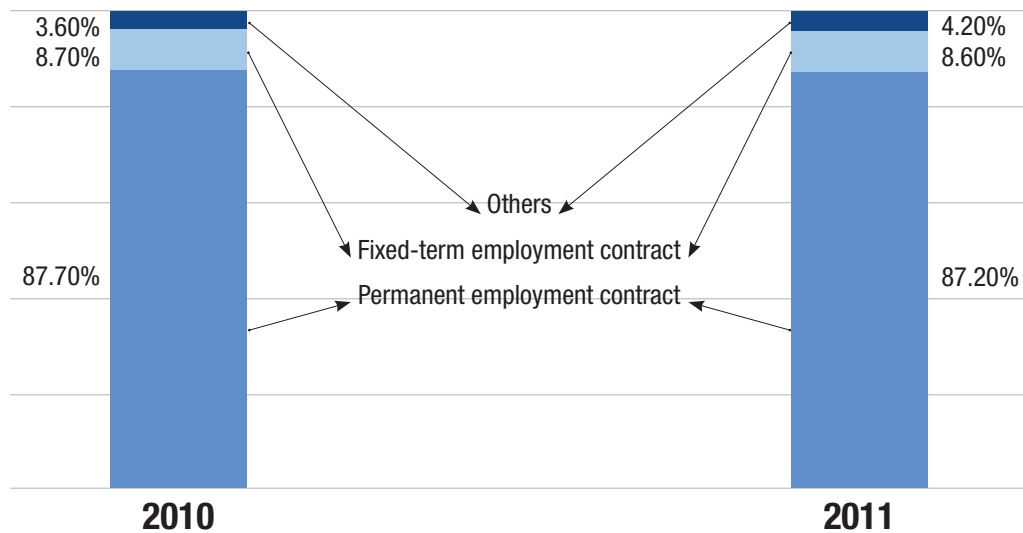


figure 8 - CONTRACTUAL TYPES 2010 - 2011 (%)

In both years surveyed, the vast majority of contractual types is represented by permanent employment contracts





SOCIAL INDICATORS AND DATA

The structure of the workforce in tanneries sees the predominance of professional profiles with technical and production oriented skills (79% of the workforce).

As illustrated in Figure 7, low specialisation production workers prevail in the shop floor (over 66% in 2010 and 2011), while highly skilled personnel tend to be higher in other departments or services. Indeed, Research and Development related jobs are increasing their importance both in the area of process technologies and fashion, design and style.

The low incidence of managerial jobs is mainly due to the predominance of small and medium sized enterprises (often family businesses), where practical decision-making responsibilities are usually delegated to personnel with proven experience but in a middle management position.

As shown in Figure 8, more than 87% of the workforce of European tanneries are employed with a permanent contract. Different forms of fixed-term employment contracts make up the balance.

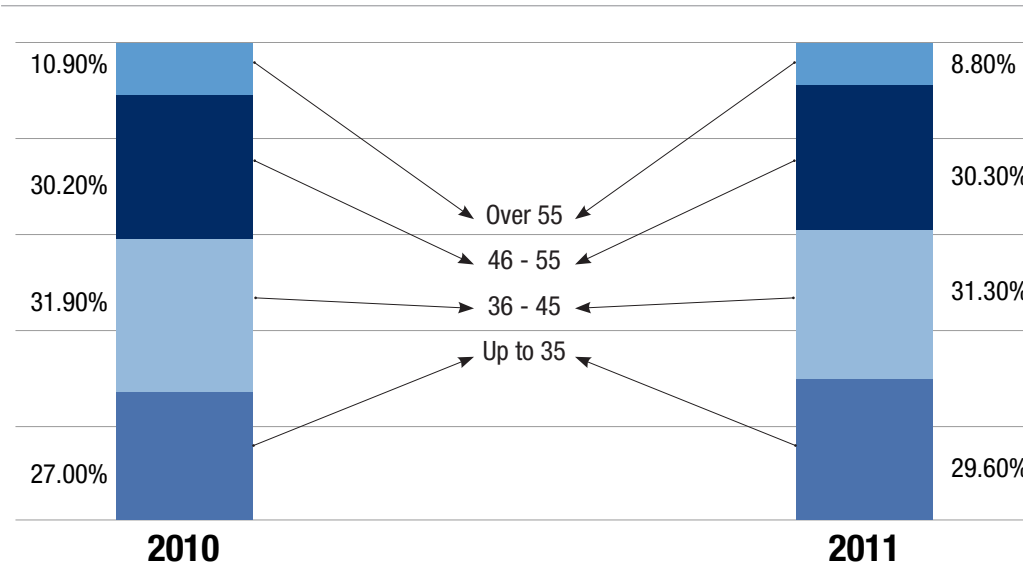
Figure 9 shows a quite consistent distribution. Workers under 35 years of age represent almost 30% of the total in 2011. The age bracket of those employees aged between 35 and 55 displays the largest incidence in both years under consideration. Studies carried out at EU level show that one of the most relevant issues for Europe's tanneries is the low appeal of the sector among young people. Many initiatives involving schools and teachers are in place for reversing this trend. National associations and trade unions are generally their promoters, but results show that a more comprehensive effort at European level is necessary to renew the sector's workforce on a sustainable basis.

Figure 10 illustrates the results of the survey in terms of Seniority. More than 50% of the workforce has been employed in the tanning sector for less than 10 years, while a significant share of the total remain in tannery jobs for a large portion of their working life.

The job distribution depicted in Figure 7 mirrors the analysis of the educational level, shown in Figure 12. ISCED levels 1 and 2, corresponding respectively to Primary education or first stage of basic education and to Lower secondary or second stage of basic education (see informative box), represent the same share of the total (almost 70%) as the low specialisation production workers employed in tanneries (66.2% in 2011).

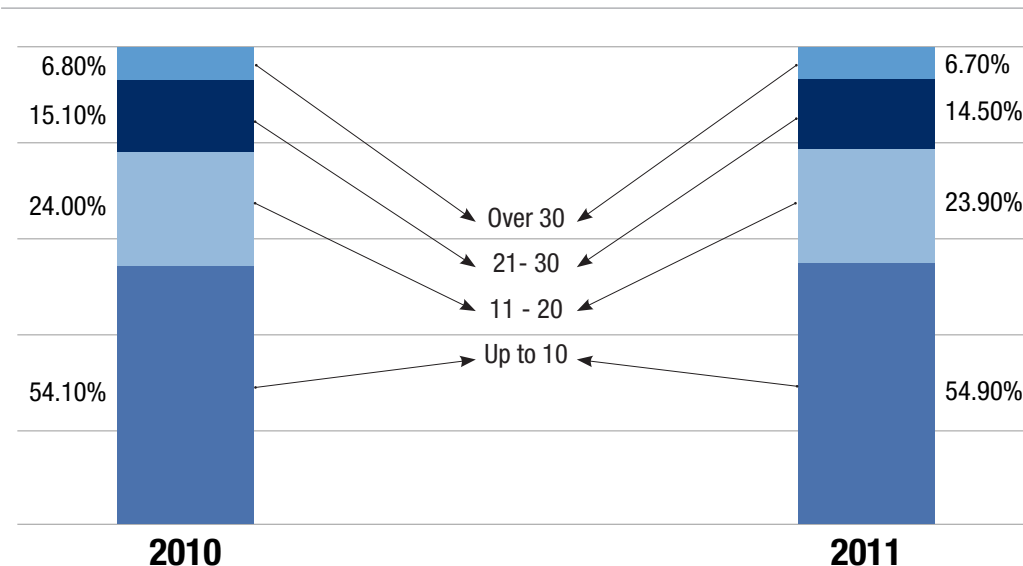
The tanning sector is traditionally closely and firmly rooted in its territory. Figure 12 shows that a very large share of the workers in European tanneries come from the same country of the tannery they work for. In some cases, hiring is performed predominantly in the very area (city or province) where the tanneries are based. Immigration and integration of foreign workers is nevertheless a noticeable feature. Another significant share of workers (9.2% in 2011) comes from foreign non-European countries. This exemplifies the positive interaction of Europe's tanneries with their local communities where leather often represents the main employment opportunity that also contributes to the integration of immigrants at local and regional level.

figure 9 - AGE BRACKETS 2010 - 2011 (%)



Workers under 35 represent almost 30% of the total in 2011; tanneries are young and stimulating environments

figure 10 - SENIORITY CATEGORIES 2010 - 2011 (%)



Over 50% of the workforce has been working in the sector for less than 10 years

figure 11 - EDUCATION 2010 - 2011 (%)

Education levels in tanneries are more technical and production oriented

INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION

LEVEL 1: Primary education or first stage of basic education
 LEVEL 2: Lower secondary or second stage of basic education
 LEVEL 3: (Upper) secondary education
 LEVEL 4: Post-secondary non-tertiary education
 LEVEL 5: First stage of tertiary education
 LEVEL 6: Tertiary programmes leading to the award of an advanced research qualification, e.g. Ph.D

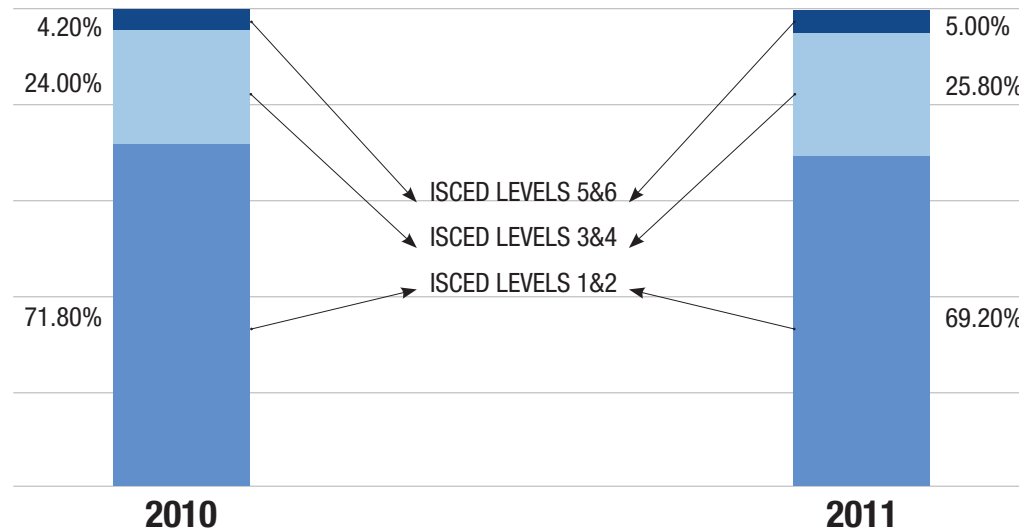
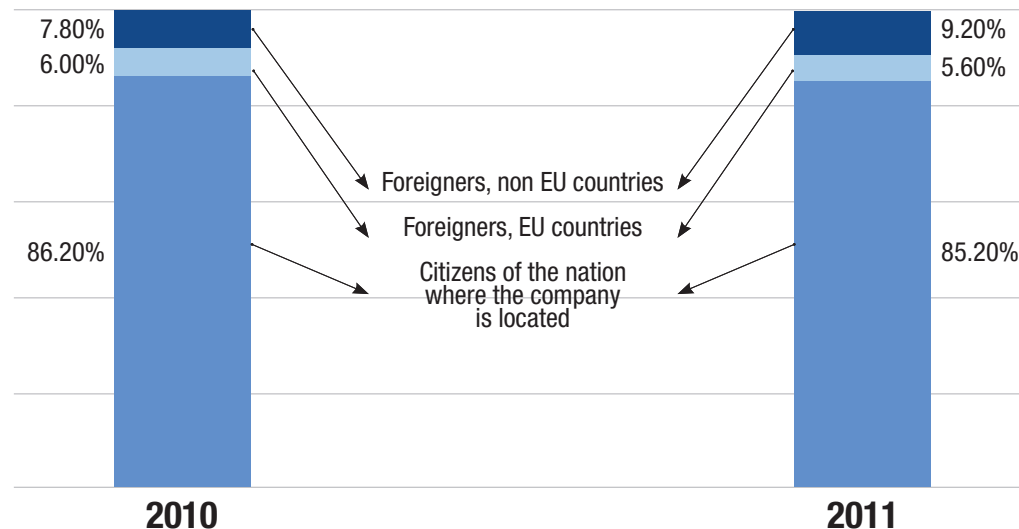


figure 12 - TERRITORIAL ORIGIN 2010 - 2011 (%)

European tanneries are engaged with their territories. Local communities provide the majority of the workforce. Non-European workers are numerous and well integrated



TRAINING ACTIVITIES

Being human resources so crucial for the sector's competitiveness, all European tanneries understand the importance of training their workforce. For competing in the international market on quality, product consistency and performance, fashion and service to customers, skilled personnel are essential, notably in high-cost economies such as Europe. The combination of experience and youth, i.e. skilled workers and young applicants, represents the key asset on which the competitiveness of the sector is based. This can be enhanced at sector level by developing continuing vocational training and life-long learning. Despite a long tradition and the international reputation of Europe's tanning schools and dedicated university departments and chairs, leather specific education and training in Europe is in distress. Critical mass for filling classrooms, geographical dispersion of tanneries and language barriers are some of the obstacles facing an effective reorganisation of professional training in the European leather sector. Continuing Vocational Training and life-long learning are promising instruments. Skills can be transferred or up-graded in the tanneries themselves with courses adapted to the specific job and coaching or learning at the trainee's own speed. Training may be prescribed by law or by national labour agreements (e.g. regarding health and safety at work).

Over the last two years, tanneries across Europe have organised in-house and external training courses on:

- Leather technology
- Fashion and trends
- Environmental management systems
- Health and safety at the workplace
- Risk assessment
- Factory wide Environmental briefings on actions, costs etc

The Social Partners of the European Tanning industry, COTANCE and industrial-European Trade Union, have been addressing the strategic issue of education and training in the leather sector in their Social Dialogue since the 1990ies. Their efforts have led to the recent foundation of a EUROPEAN SECTOR SKILLS COUNCIL ON EMPLOYMENT AND TRAINING from where they steer the restructuring process (see informative box).

As shown in Figure 13, the gender distribution in the sector is somehow mirroring the picture of job distribution, with similar percentages of low specialisation production workers and males. This predominance of male employment at the shop floor is more frequent in tanneries processing whole bovine hides where the loads handled usually call for a certain physical strength. Indeed, it is not unusual to find women working in production in tanneries processing small skins. Female jobs are, however, quite equally distributed in production and in other office based processes.

ACCIDENTS

Workplace risk prevention is high on the sector’s agenda where the handling of loads, the use of heavy machinery and specialty chemicals could be the source of severe injuries. In Europe tanning is not an accident-intensive industrial activity. At least this is what the survey results suggest for the period under review. Accidents have been analysed taking into consideration three indicators:

- Relative frequency:** total number of accidents*1000/number of workers.
- Seriousness ratio:** days lost/number of workers.
- Average duration:** number of days absent from work/number of accidents.

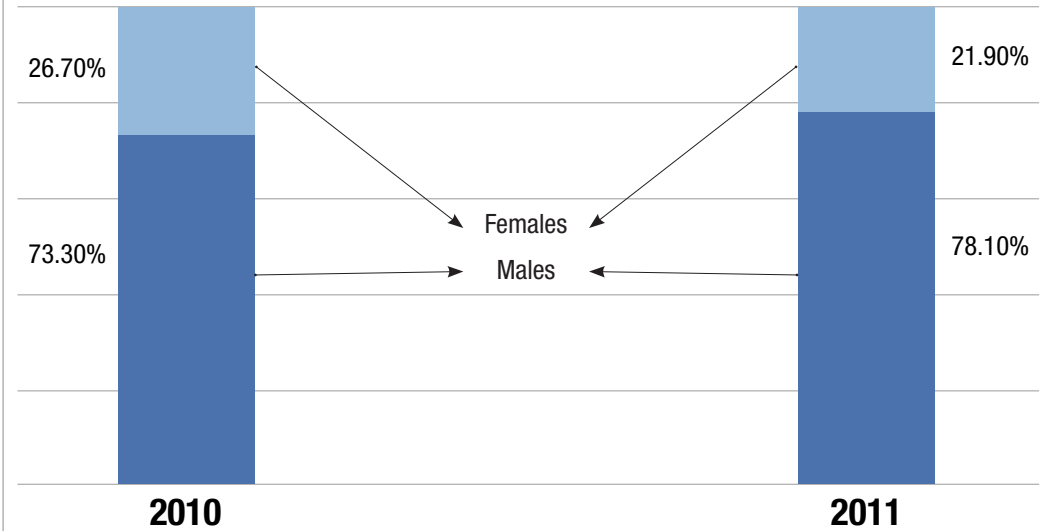
Data referred to 2011 and only to the Italian situation (in any case highly representative). Figures are as follows:

- Relative frequency:** 3.35
- Seriousness ratio:** 0.93
- Average duration:** 27.63

These figures are low in comparison with other industrial sectors. Italy moreover records a long period without fatal accidents in the tanning sector.

figure 13 - GENDER DISTRIBUTION 2010 - 2011 (%)

Female jobs, even if inferior in number, are equally distributed in production and in administration



A PRODUCTIVE SOCIAL DIALOGUE

The Social Partners of the European Leather industry, COTANCE and IndustriAll (former ETUF:TCL), have developed a fruitful Social Dialogue since the 1990s. Within the EU Sector Social Dialogue Committee Leather/Tanning, they adopted a joint declaration in 1999 on training requirements in the context of the modernisation of work organisation, improving the image of the sector and establishing a unit to monitor industrial change. In 2000, they drew up a Code of good Conduct concerning fundamental rights at work; this was their first Framework Agreement. They drafted joint contributions for the Lisbon (2001), Barcelona (2002) and Brussels (2004)

Summits on the challenges and opportunities of the sector. They organised a workshop on training themes in Turin, Italy in 2002 and a seminar on the modernisation of work organisation (Spain, 2002). In the context of enlargement, they organised three Economic and Social Forums with EU candidate countries (Hungary (2001), Romania (2002), Poland (2004)). The Social Partners have undertaken in 2003/2004 a joint project with SAI (Social Accountability International) on training on Core Labour Standards in support of the implementation of their Code of Conduct. In 2005, the social partners of the tanning and those of the textile sectors launched a joint Capacity Building project for the Social

Partners from the new member States and EU accession candidate countries. As a follow-up of their 2000 Code of Conduct, they developed a new Framework Agreement in 2008 focussing on an innovative Standard for Social & Environmental Reporting in Europe’s leather industry empowering even the sector’s SMEs to adopt CSR communication practices. A number of other joint projects regarding highly relevant sector issues such as developing an on-line Risk Assessment Tool for the sector’s SMEs (2011) or addressing Transparency and Traceability of the supply chain (2012) complete the range of activities of the Social Partners of the European Leather Industry.



**PILOT SECTOR ONLINE TOOL
FOR RISK ASSESSMENT
IN THE LEATHER AND TANNING INDUSTRY**

<http://client.oiraproject.eu>

In a joint project industriAll-European Trade Union and COTANCE have developed an “Online Risk Assessment Tool” on Safety and Health at Work for small and medium sized tanneries. It is focused to assist them on prevention and management of risks for tannery workers, facilitate the setting of a company strategy in this field and avoid possible adverse effects of restructuring in the sector.

The tool is meant as a reference to give valuable information and suggestions to perform a risk assessment for individual tanneries in order to minimize and eliminate health and safety risks. Implementation of the tool does however not necessarily ensure legal compliance with the national health and safety regulations. This is to be ascertained with the domestic health and safety authorities. The tool is intended to raise awareness for health and safety issues in the tannery and give examples for good practice.

The tool covers all major areas in a tannery, amongst them:

- OSH Management
- In-house Transport
- Emergency Management
- Working with Raw Hides and Skins
- Use of Machines
- Use of Chemicals
- Office workplaces

Users of the tool are guided through the different steps from evaluation of potential risks to an action plan with solutions and measures and a final report.

European Skills Council
Textile Clothing Leather



**THE EUROPEAN SECTOR
SKILLS COUNCIL
ON EMPLOYMENT
AND TRAINING**

europeanskillscouncil.t-c-leu

The European Social Partners of the Textile, Clothing and Leather sector officially launched in Brussels on April 25th 2012 the body named “European council for education and employment in textile clothing leather”, abbreviated to “EU TCL SKILLS COUNCIL”. The founding members are:

- **IndustriAll** European Trade Union (former European Trade Union Federation for Textile Clothing Leather, ETUF : TCL)
- **EURATEX**, The European Apparel and Textile Organisation
- **COTANCE**, The Confederation of National Associations of Tanners and Dressers of the European Community

The creation of the EU TCL SKILLS COUNCIL has been possible thanks to the financial support of the European Commission. The TCL sector is the first European sector to engage in such an initiative.

Statutory aims of the Skills Council are “to improve the level of education, skills and employment in the Textile Clothing and Leather sector, addressing, among other issues, training, qualifications and skills of the European labour force in these Industries, the appeal of the sector for attracting young professionals and the assistance needed by enterprises in order to be more flexible in meeting changing competitive demands”. To be able to reach these objectives, the Social Partners are cooperating with several sector-specific Industry Skills Partnerships (ISPs are bipartite or tripartite sector specific organisations, active in the fields of education, training and employment). **COBOT** (BE), **CREATIVE SKILLSET** (UK), **IVOC** (BE), **OPCALIA** (FR), **OSSERVATORIO NAZIONALE CONCIA** (IT) are already members of the EU TCL Skills Council.

2012 has been the first year of activities of the EU TCL Skills Council. Through its members, it is producing aggregated sectoral knowledge on three research topics:

- *The evolution of the supply, employment and skills needs including foresight and forecast analyses for the TCL sector*
- *Good practices bringing the worlds of education and work closer and reducing the persistent skills mismatch at sectoral level, as well as on the mechanisms existing at national or regional level between anticipation bodies and education and training providers*
- *Innovative tools, national and/or regional strategies, local initiatives, methods put in place for peer learning purposes*

On the basis of the conclusions of these reports, the social partners will be able to prepare and submit to the European Commission structured recommendations for the implementation of education, training and employment policies and initiatives deemed useful for the sector.



Environmental indicators

Environmental sustainability of leather production is essentially based on three pillars: **raw materials processed, process efficiency, pollution prevention and control**.

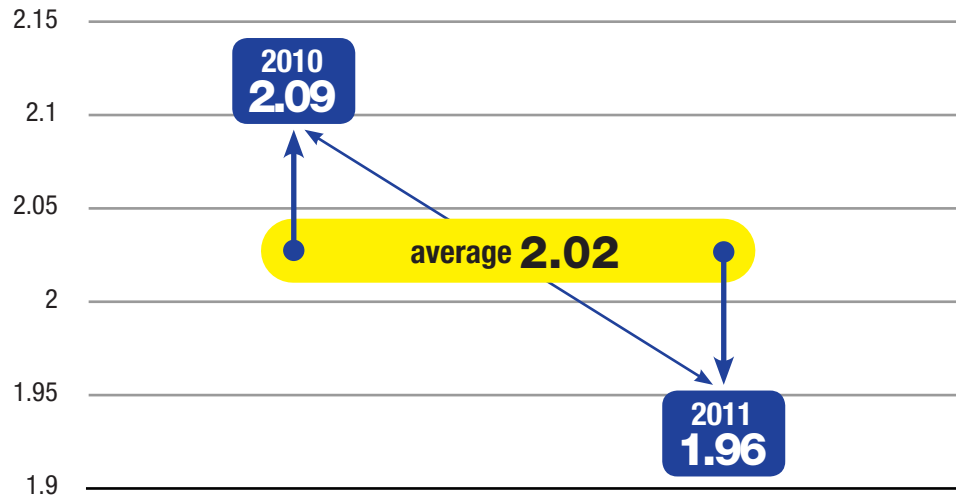
With regard to **raw materials**, as explained in the chapter “Social and environmental values of the European tanning industry”, 99% of the hides and skins processed by European tanneries derive from animals that have been raised primarily for other economic purposes (wool, milk and/or meat production). Indeed, since a renewable resource can be defined as “a natural resource with the ability to reproduce through biological or natural processes and replenished with the passage of time”, wool, milk and/or meat can be considered renewable resources. **Raw hides and skins are therefore “renewable by-products”** that are recovered and transformed, through a complex sequence of chemical and mechanical operations, into a high value added intermediate material for a number of strategic industries. In this context, finished leather represents a natural and renewable alternative to oil based products that are used for the same purposes.

In order to analyse and to report on **process efficiency, pollution prevention and control**, country specific physical and economic data, obtained by the associations from their affiliates, have been processed and aggregated. The present section of the report focuses on the description of a set of reference indicators summarising the environmental performance of European tanneries. Achievements in this area by the sector are the result of investments in both process technologies (improvement through process efficiency and process innovation) and in End-of-Pipe technologies (improvement through treatment of outflows, such as wastewater).

The definition of environmental expenditure adopted in the present report corresponds to the one proposed by Eurostat: *“any expense incurred to implement an action whose main (direct or indirect) objective is to manage and protect the environment, that is an action deliberately and principally aimed at preventing, reducing or removing the environmental degradation caused by any production and consumption activities”*.

figure 14 - CONSUMPTION OF CHEMICALS PER PRODUCT UNIT 2010 - 2011 (kg/m²)

Chemical consumption per product unit decreased 6.2% between 2010 and 2011



UNEP DECLARATION ON CLEANER PRODUCTION

On 29 April 2002 COTANCE, signed the International Declaration on Cleaner Production.

The International Declaration on Cleaner Production is a commitment to the goal of sustainable development by the bodies who are signatories to it. It was formulated by the United Nations Environment Programme (UNEP) in order to eliminate pollution before it is created, rather than clean up the damage caused.

Following a Council decision taken in 2000, COTANCE had decided to become a signatory to the UNEP declaration. In signing up, the European Tanning Industry makes public its commitment to favour pollution prevention and cleaner production. Indeed this is already a reality in most of the European Tanneries and should therefore be communicated to the general public by all available means, first by signing the UNEP declaration and then, by further implementing and widely disseminating its principles.

CONSUMPTION OF CHEMICALS

Chemical auxiliaries are used in numerous processes of leather manufacturing. The interaction between chemicals and the dermis (hide or skin substrate) is needed to eliminate non-required substances and to modify the structure and mobility of the collagen fibres, in order to provide the final leather with the required physical characteristics, including its final appearance. Chemicals in tanneries are normally used either in an aqueous medium or sprayed onto the leather surface. Chemical product research and process development have been constantly evolving towards substitution of dangerous chemicals, reducing exposure at the workplace and improved occupational health and safety, process efficiency, higher exhaustion of processing baths and reduction of releases of spent chemicals into the natural environment.

Data collected by national associations show an average value of 2.02 kg of chemicals per m² of finished leather over the 2010 - 2011 period. Reduction of the intensity of process chemicals, as well as an increase of eco-compatibility of auxiliaries are achieved through continuous experimentation and through the co-operation of tannery technicians with chemicals and machinery suppliers.



IND - ECO: ENERGY EFFICIENCY FOR THE LEATHER SECTOR

COTANCE, together with other 15 European partners, is implementing a project named IND - ECO "Industry Alliance for reducing energy consumption and CO₂ emissions" sponsored by the European Commission (EACI Agency) within "Intelligent Energy Europe". The project started in May 2012 and will last for 3 years. It is aimed at developing the best framework conditions for supporting tanners and footwear manufacturers to invest in energy efficiency.

The project has four primary objectives:

- identifying, by means of energy auditing, the main areas where energy efficiency can be implemented in tanneries and in the leather value chain;
- identifying the best technical and technological solutions available in the domestic and European context to reach higher levels of energy efficiency;
- reaching agreements with economic and financial operators at a European, national and local level, to facilitate corporate access to finance needed to invest in energy efficiency;
- tutoring the companies in the development of energy efficiency investment plans.

The companies concerned in the IND - ECO project will be able to:

- obtain free advice from experts and specialists in energy efficiency who will perform a comprehensive technical and technological investigation aimed at identifying the main possible actions to be adopted so as to improve energy efficiency and estimate the resulting energy savings;
- have access to a special database of energy-efficient technologies (system and process solutions), with the support of agreements reached with suppliers in the framework of the project;
- benefit from the agreements reached with energy specialists, European banks and national and local credit institutions, aimed at facilitating access to loans for energy efficiency investments.

www.ind-ecoefficiency.eu

ENERGY CONSUMPTION

Electricity is mostly used in tanneries to operate machinery and vessels, to produce compressed air and for lighting. Thermal energy is needed for drying leather in different process phases, to heat water to temperatures needed for chemical processes, and to control the temperature of the working environment. Significant factors influencing energy consumption in a tannery are the type of raw materials entering the tannery and the energy intensity of the different process phases carried out.

To calculate the overall consumption per product unit, data have been expressed in Tonnes of Oil Equivalent per 1,000 square metre of leather produced (TOE/1,000 m²). The amalgamation of data provided by national associations gave an average value of 2.0 TOE/1,000 m² for the 2010 – 2011 period (Fig. 15). Reducing energy consumption in tanneries mainly implies installing highly energy-efficient machinery and developing energy-saving processes. Analysing the breakdown of energy consumption (Fig. 16), electricity is close to 50% of total energy used, in both 2010 and in 2011. Thermal energy comes mainly from the combustion of natural gas (methane) and/or other fossil fuels (fuel oil, LP gas, others). An increasing number of tanneries are investing in renewable energy resources.

figure 15 - ENERGY CONSUMPTION PER PRODUCT UNIT 2010 - 2011 (TOE/1,000 m²)

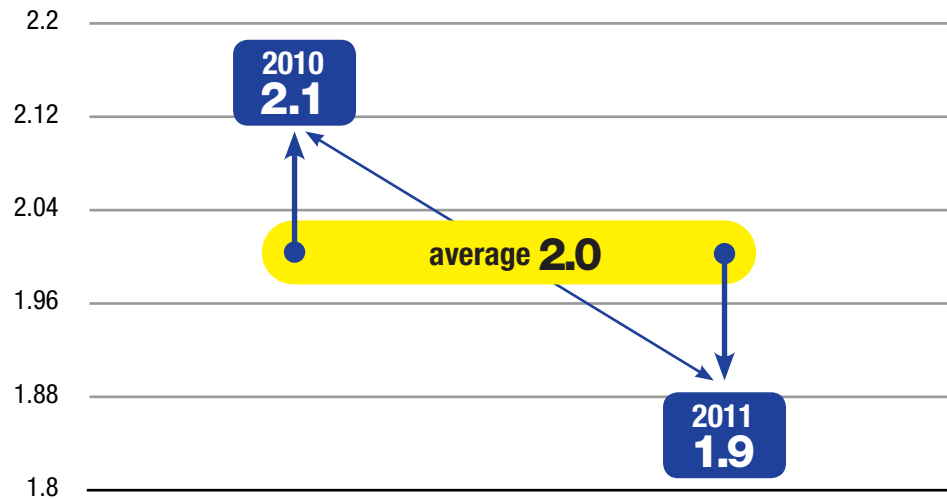
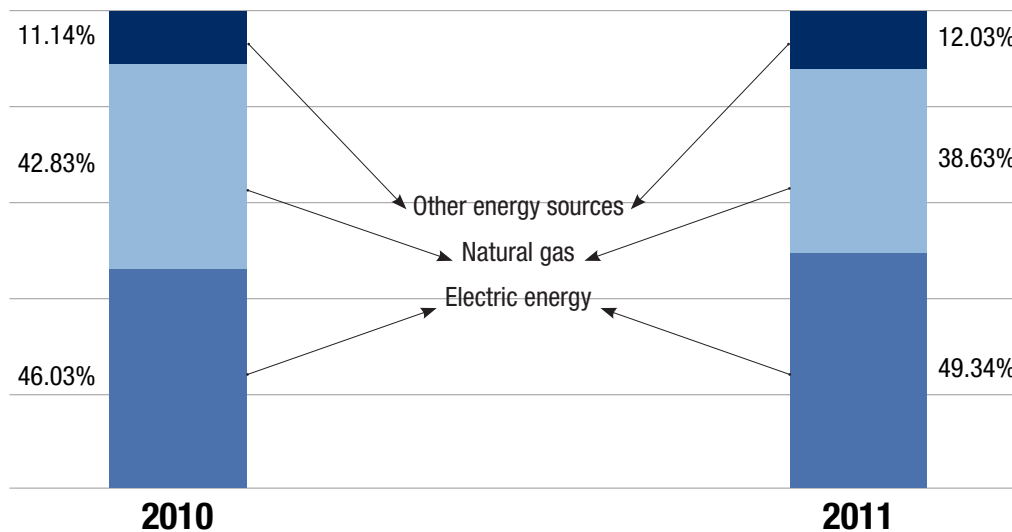


figure 16 - ENERGY CONSUMPTION BREAKDOWN 2010 - 2011 (%)



Electricity represents almost 50% of the overall energy consumption. Thermal energy comes from methane gas and other fossil fuels. Tanneries are investing in renewable energy sources.



WATER CONSUMPTION AND DISCHARGE

Water serves as a medium for fundamental process phases, for example tanning and dyeing, which all occur in drums and other vessels through dissolved chemicals. Water is also used to wash leather, machinery and the workplace. The most important water sources are represented by authorised and regulated artesian wells located within the tannery site and industrial and civil aqueducts. Water supply and wastewater treatment represent the most important environmental aspects of the tanning industry.

As shown in Fig. 17, water consumption per product unit averages $0.13 \text{ m}^3/\text{m}^2$. The reduction of water consumption per product unit has been an environmental priority for European tanneries over the years. This has

been possible mainly through the setting of continuous improvement objectives aiming at developing water efficient processes and water recycling technologies.

Almost 95% of the water used in tanneries is subsequently discharged; the remaining share is represented mostly by water that evaporates during manufacturing or the moisture content of waste sent to recycling and/or disposal.

The water discharged is then sent for purification. Unlike some non-European competitor countries, where environmental legislation is either lacking or poorly enforced, 100% of European tanneries treat their wastewaters through complete and complex purification systems.

The majority of leather production in south European countries is concentrated in tanning districts. Here,

centralised effluent treatment plants have been built and improved over the years. Centralised water purification plants managed by district consortia are an excellent international example of inter-corporate collaboration for environmental sustainability. In this context, tanneries normally carry out only primary treatment within their facilities, delegating to the centralised effluent treatment plants the other necessary physical, chemical and biological treatments.

In territories where tanning districts are located, the same effluent treatment plants, originally created to serve the industry, have evolved over the years and nowadays also contribute significantly to the purification of civil wastewater.

Tanneries located outside industrial districts carry out wastewater purification independently, and discharge their treated effluent mostly to public sewage systems.

figure 17 - WATER CONSUMPTION PER PRODUCT UNIT 2010 - 2011 (m³/m²)

To produce one square metre of leather European tanneries consume 0.13 m³ of water

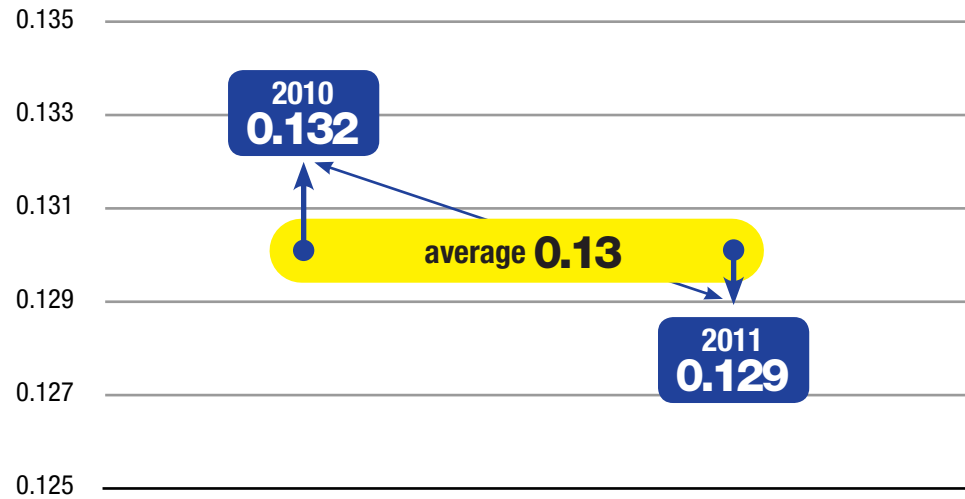


Figure 18 shows the data of average wastewater purification efficiency of the different effluent treatment systems distributed in the countries that contributed to the survey, for each of the described parameters. Purification efficiency in this case is expressed as:

$$([IN] - [OUT]) / [IN]$$

Where [IN] is the concentration of the parameter in the inflow of the effluent treatment plant, and [OUT] is the concentration of the same parameter in the wastewater discharged after treatment. This indicator ultimately measures the capacity of the adopted system to remove pollutants from water. As is evident, the various effluent treatment systems adopted in European tanneries, guarantee excellent purification performances for almost all parameters, with the exception of dissolved salts, representing an unsolved technological problem at international level.

Minimisation of water pollution has been achieved in European tanneries through the development and implementation of process-integrated techniques, aimed at reducing the chemical content in wastewater, either by modifying chemical dosage, or by favouring high exhaustion of baths.

TANNING WASTEWATER QUALITY IS MAINLY MONITORED BY ANALYSING 8 PARAMETERS:

(TSS - Total Suspended Solids)

This indicates the quantity of undissolved solids, which can be separated by filtration. In tanning operations, TSS mainly derive from residues of hides and skins, produced during the wet end operations, and from undissolved chemical products.

COD (Chemical Oxygen Demand)

The parameter indicates the quantity of oxygen required for the complete oxidation of the organic and inorganic compounds dissolved in

the effluents. In tanning operations, COD values are affected by organic residues of hides and skins and by process chemicals that have not been fully exhausted (i.e. organic acids, tannins, resins, fatliquors etc).

Sulphates (SO₄⁼)

Sulphates are contained in a vast range of tanning chemical compounds. Cooperation among tanneries and chemical suppliers is leading to the identification of alternative Sulphate free products.

Nitrogen

Nitrogen content in wastewater is generally expressed as TKN: Total Kjeldhal Nitrogen,

namely, the concentration of total organic Nitrogen deriving from the breakdown of proteins and urea. In tanning wastewater, also ammonia (NH₃) and ammonium salts (NH₄⁺) are other significant parameters.

Chlorides (Cl⁻)

Chloride content in tanning effluents is derived mainly from the salt used in raw hide or skin preservation, dissolved in the first process phases, and from some chemicals (such as ammonium chloride, sodium chloride and hydrochloric acid) used in wet end operations. A high salt load can have negative effects on the water's osmotic potential and on its organoleptic characteristics.

Chrome (III)

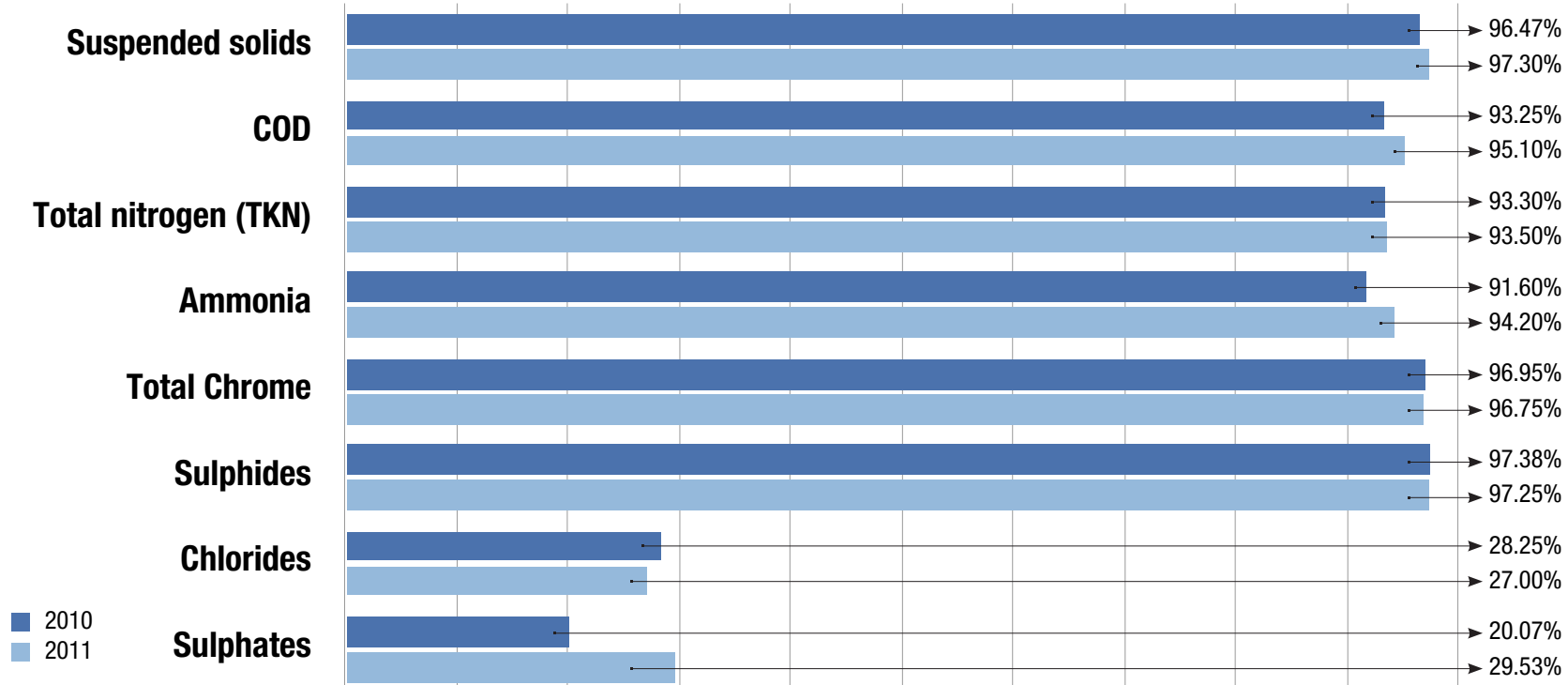
Basic chrome sulphate (CrOHSO₄) is the most common tanning agent worldwide. The Chrome used for tanning is in its trivalent state of oxidation, in which it does not have the toxic characteristics associated to the hexavalent state.

Sulphides (S⁼)

Sodium sulphide (Na₂S) is used in the initial processing phases, in particular, to remove hair from hides and skins. The environmental impact is due mainly to its potential toxicity in certain environmental conditions, to its contribution to the COD value and to the characteristic bad odour transferred to the water, which has less environmental impact but is more evident.



figure 18 - WASTEWATER PURIFICATION EFFICIENCY 2010 - 2011 (%)



Effluent treatment systems implemented by tanneries are extremely efficient for almost all parameters monitored

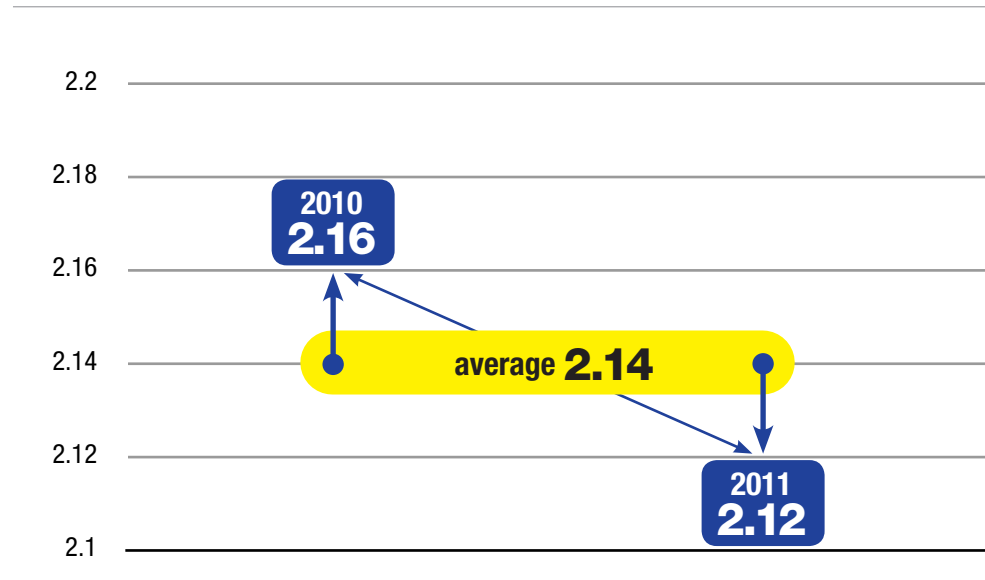
WASTE MANAGEMENT

As shown in Figure 19, European tanneries produce, on average, 2.14 kilograms of waste for every square metre produced. This figure might apparently represent an environmentally significant value, but the overall management and final destination of tanning wastes have to be taken into due consideration.

The weight of fully processed bovine grain side leather represents only approximately 20 – 25% of the weight of the raw hides entering the tannery. Some tanneries produce and market co-products (such as splits) as lower specification leathers. In other cases, by-products or wastes deriving from the tanning process are used as raw material for other production processes. Only a very small portion of the residues directly deriving from raw hides and skins do not find a second use. Other typical wastes of tanneries (such as sludge generated during wastewater purification treatments) have been mainly dumped in the past, although alternative technologies are emerging nowadays. The European Waste Catalogue (EWC) offers an accurate classification of waste deriving from tanning operations:

- 04 01 wastes from the leather industry**
- 04 01 01** fleshings and lime split wastes
- 04 01 02** liming waste
- 04 01 03** degreasing wastes containing solvents without a liquid phase
- 04 01 04** tanning liquor containing chromium
- 04 01 05** tanning liquor free of chromium
- 04 01 06** sludges, in particular from on-site effluent treatment containing chromium
- 04 01 07** sludges, in particular from on-site effluent treatment free of chromium
- 04 01 08** waste of tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
- 04 01 09** wastes from dressing and finishing
- 04 01 99** wastes not otherwise specified

figure 19 - WASTE PRODUCTION PER PRODUCT UNIT 2010 - 2011 (Kg/m²)



The weight of fully processed grain side leather represents only approximately 20 - 25% of the weight of the raw hides entering the tannery

Fleshings, hair and other solid residues generated at earlier manufacturing steps are not classed as waste under the regulations in force, but as Animal By-Products (European ABP regulations 1774/2002/EC later replaced by 1069/2009 and 142/2011) or as food grade material (European regulation 853/2004).

By-products, residual material, and waste are collected and stored separately in European tanneries. Some national cases show that the portion of material collected and stored separately is highly significant (98% for Italy). The separate collection and storage helps to preserve the technical characteristics of different materials and,

as a consequence, favours reuse and recycling. Apart from separate collection and storage of various residual materials, waste management activities in tanneries include the identification and selection of specific waste disposal routes and/or specialised companies, with the aim of reusing and/or recycling the secondary raw materials produced. A number of factors contribute to the technical-economic possibility of recycling the by-products or waste produced, depending on the tannery's internal organisation, but also on the local availability of treatment or disposal facilities. Optimised "waste supply chains" can lead to as much as 75% of waste produced being sent for recycling.

AIR EMISSIONS

The main parameters affecting air quality in tanneries are Volatile Organic Compounds (VOC), Dust and Hydrogen Sulphide. Moreover, the thermal systems used to generate heat release a number of pollutants during combustion, namely Nitrogen Oxides (NOx), Sulphur Oxides (SOx), and, of course, Carbon Dioxide (CO₂). On this latter parameter, innovative and very interesting sectoral approaches on Carbon Footprint have been described in a technical report produced by UNIDO (see informative box).

For emissions to the air, data provided by national associations on the consumption of organic solvents per product unit have been elaborated at European level. In Figure 20 it is shown how average data (43.36 g/m²) does not differ very much from 2010 and 2011 annual values. Moreover, Figure 21 shows the evolution of solvent consumption compared to production in Arzignano, the biggest tanning district in Europe over the period 1996/2011. The trend for solvent consumption has been decreasing (-72%) from 1996 to 2011, as compared to the output rates shown in the figure.

figure 20 - SOLVENT CONSUMPTION PER PRODUCT UNIT 2010 - 2011 (g/m²)

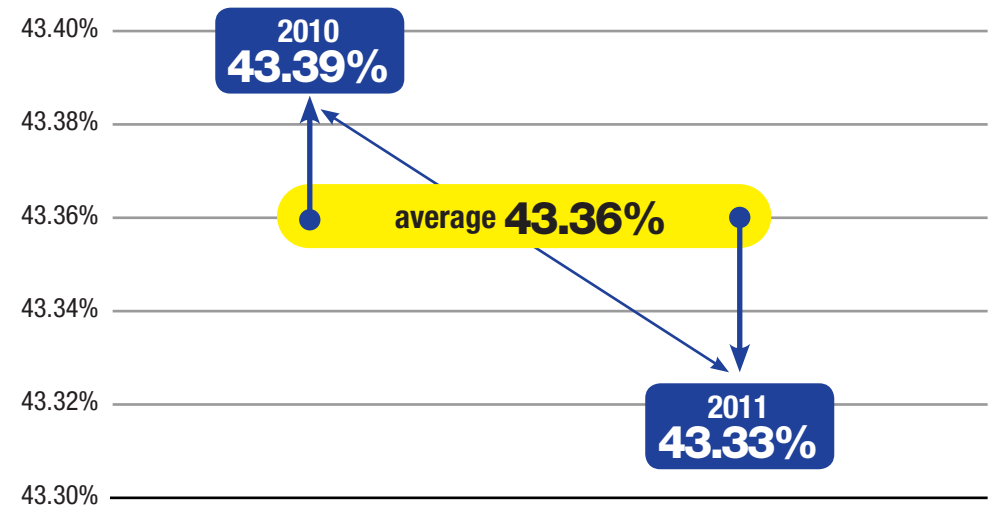
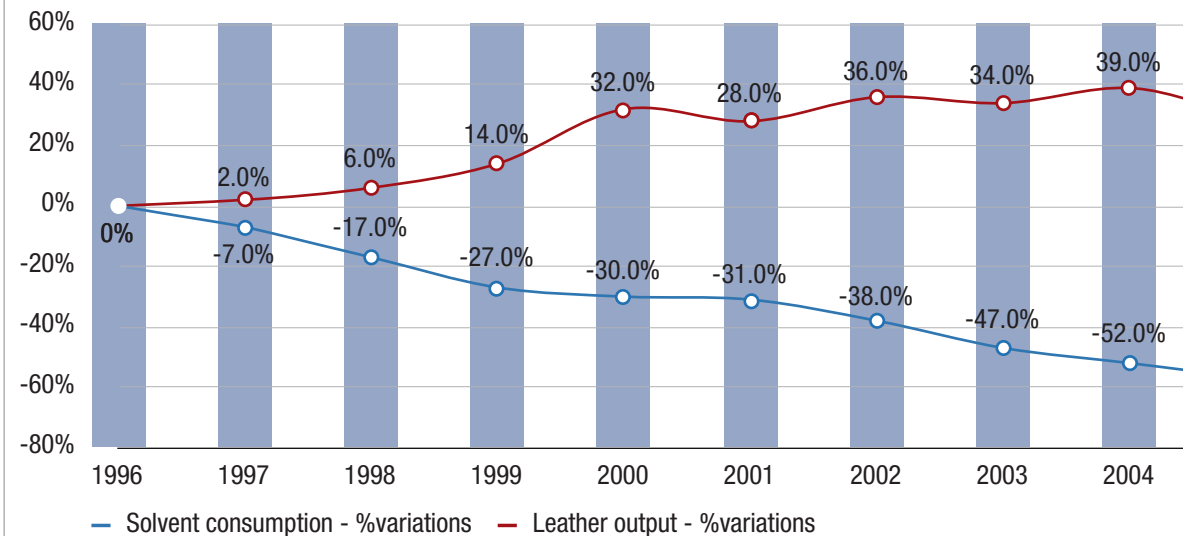


figure 21 - SOLVENT CONSUMPTION COMPARED WITH PRODUCTION 1996 - 2011 (%)

Data refer to the biggest tanning district in Europe, located in Arzignano, Veneto region, Italy





LEATHER CARBON FOOTPRINT: FINALLY A HARMONISED APPROACH?

International concern has increased over the years on Climate Change. Data and findings add weight to the common conclusion that the clear long-term trend is one of global warming. Most of the observed increase in global average temperature since the mid - 20th century is very likely due to the observed rise in anthropogenic greenhouse gas concentrations. Among these, particular attention is paid on CO₂ or Carbon Dioxide. Manufacturing industry contributes 19% of all GHG emissions. Interest has been developed in estimating the total amount of GHG produced during the various stages in the life cycle of products. The results of these calculations, are referred to as Product Carbon Footprints (PCFs). The Carbon Footprint of a product is defined as the “weighted sum of greenhouse gas emissions and greenhouse gas removals of a process, a system of processes or a product system, expressed in CO₂ equivalents”. In case of finished leather, the Carbon Footprint, is expressed as:

Kg of CO₂e/m² of finished leather

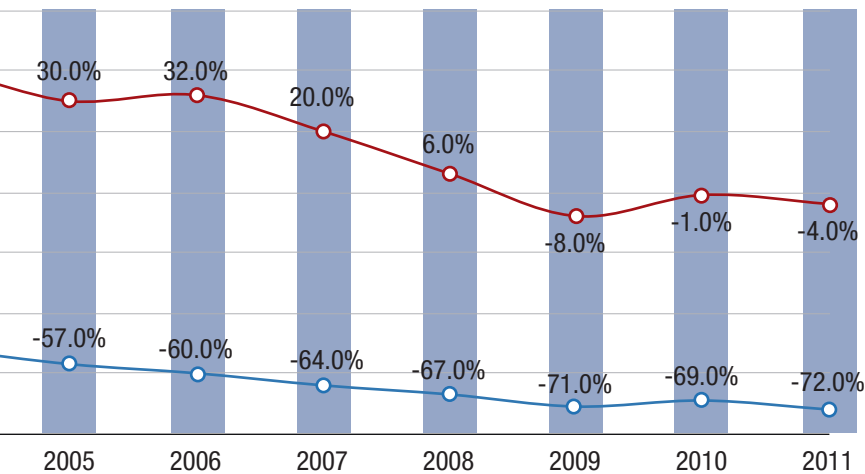
Currently, there is no single methodology and no agreement has been reached internationally on Leather PCF calculation methods. A technical report produced by UNIDO has provided some very clear indications on Carbon and Environmental Footprint for leather. In particular, since all the calculations are, by definition, to be implemented on all the processes that contribute to the realisation of the product (the so called “cradle to grave” approach), one of the most important factors on which international agreement has to be reached is on the definition of the so called “System boundaries”. Scientists have discussed in the past whether to include or exclude in Leather Environmental Footprints agriculture and animal farming (that can account up to 80% of the Carbon Footprint and up to 99% of the Water Footprint). The approach proposed by UNIDO implies the exclusion of these upstream processes. The conclusion has been reached by analysing in detail and adopting the findings of an article on “System expansions to handle co-products of renewable materials”. The technical analysis is complex, but the final approach can be easily understood by answering 2 simple questions:

Are raw Hides and Skins co-products of renewable materials?

and

Are raw hides and skins at least partly displacing other products?

In order to answer the first question, we shall consider the fact that a co-producing process has one determining product (the product that determines the production volume of that process) and several co-products. That a product is determining the production volume of a process, is the same as saying that this process will be affected by a change in demand for this product. There can be only one determining product at any given moment. We should also consider that a renewable resource is “a natural resource with the ability to reproduce through biological or natural processes and replenished with the passage of time”. Combining these two definitions, we can state that bovine, ovine and goat raw hides and skins are co-products of a renewable material (meat). Answering the second question, we should consider the fact that, as widely known in sectoral literature, only 20 – 25% in weight of the raw material input is transformed into finished leather. The remaining portion consists of other by-products and waste of animal origin. At the same time, leather displaces other materials (mostly synthetic) in the realisation of footwear, leather goods, garment, car interiors, and furniture. The conclusion of the report, on this very important issue is that for finished Leather produced from raw hides and skins coming from animals which have been farmed for their milk production and/or for their meat, the system boundaries are to be considered as starting in the slaughterhouse, where activities and treatments are carried out in order to prepare the hides to be used for tanning (e.g.: conservation of the hides and skins by way of cooling systems or salting) and ending at the exit gate of the tannery. Leather life cycle therefore starts from “Cradle” (the slaughterhouse), to “Gate” (exit gate of the tannery).



ENVIRONMENTAL COSTS

As described in the introduction, environmental expenditures are defined in the present document in accordance with Eurostat. These are “*expenses incurred to implement an action whose main objective is to manage and protect the environment...*” Associations contributing to the realisation of this report, through direct interaction with tanneries and other structures involved in the environmental supply chain (such as centralised effluent treatment plants and waste management operators) have been able to collect, evaluate, estimate and organise these data. In European tanneries, the proportion of environmental expenditures of turnover amounts to 4.3% (Fig. 22). The indicator increased by over 4% in one year. Considering the fact that common values of industrial margins (EBDTA) for tanning businesses seldom exceed 5%, the importance and magnitude of the effort towards environmental protection expended by European tanners, and the impact on their international competitiveness versus non-European tanneries become evident. This unbalanced playing field provides unfair and unethical comparative advantages to certain international competitors who follow much less sustainable industrial practices.



If this issue is not adequately addressed, it will continue producing negative effects on the planet and on the European Leather sector that is engaged in producing wealth, jobs and progress, demonstrating virtuous conduct from an environmental point of view. Environmental protection should be rewarded rather than discouraged with policies that allow “hiding the dust under the carpet” in distant countries.

Reduction of water consumption, wastewater purification and waste management are the most important environmental activities, from an economic point of view (Fig. 23).

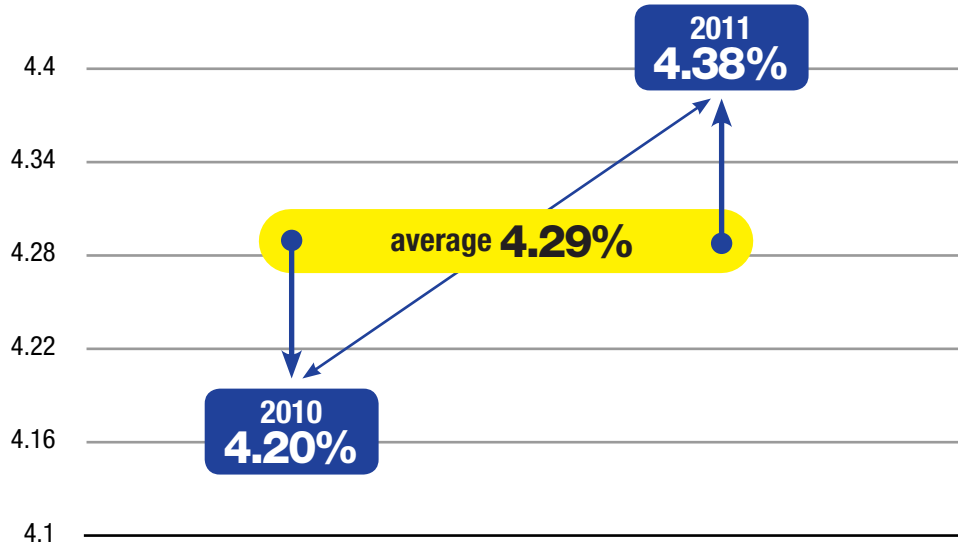
Expenses linked to good water management represent almost 60% of total environmental costs in Europe’s tanneries. Activities for minimising water consumption and purifying wastewater include the development of effective water-saving techniques

or sophisticated float recycling processes (carried out mainly by specialised tanning technicians, in cooperation with chemical companies and machine manufacturers), the management and maintenance of in-house purification systems, and compliance testing and monitoring. One very important cost item, for tanneries that delegate some phases of the water purification process, is represented by the cost of the external effluent treatment service.

The costs related to specialised services of waste collection, transport, recycling and/or disposal represent the largest share of environmental expenses related to solid waste management. Other activities carried out in tanneries representing significant environmental expenses are: separate collection of waste, management and maintenance of storage areas, waste testing and characterisation, administrative requirements related to waste management.

figure 22 - INCIDENCE OF ENVIRONMENTAL EXPENSES ON TURNOVER 2010 - 2011 (%)

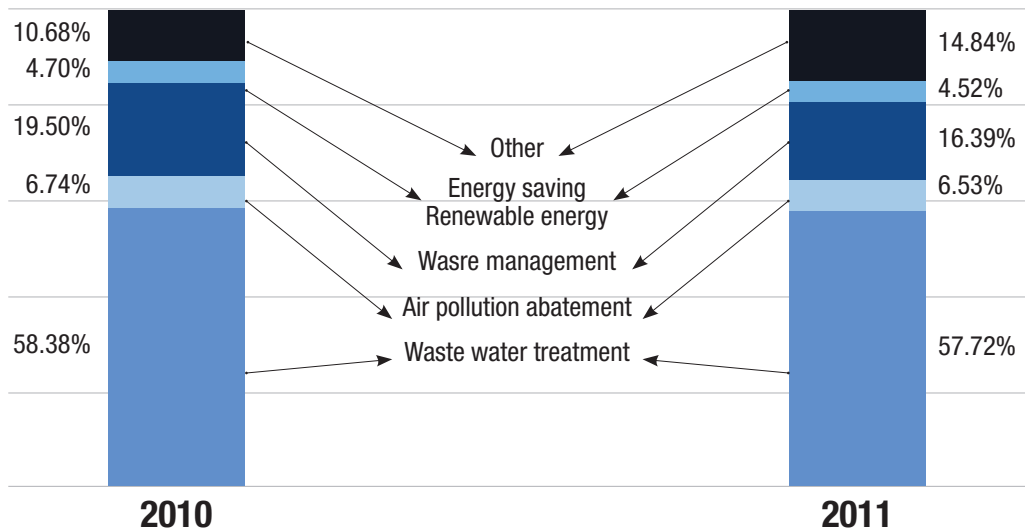
Considering the fact that common values of industrial margins (EBDTA) for the tanning businesses seldom exceed 5%, the importance and magnitude of the effort committed towards environmental protection is evident.



European tanneries review continuously the efficiency of their production processes, perform audits and undertake research into new, more efficient technologies. One important aspect for tanneries (possibly leading to further environmental costs) is activity aimed at improving energy efficiency through, for example, adoption of less energy intensive techniques and greater use of renewable energy sources.

figure 23 - DISTRIBUTION OF ENVIRONMENTAL EXPENSES 2010 - 2011 (%)

Reduction of water consumption, wastewater purification and waste management are the most important environmental aspects, from an economic point of view



All managerial activities aiming at guaranteeing a constant improvement of corporate environmental performance - starting from full compliance with the legislation in force - are included in the "other costs" category.

Competition in the globalised leather market will be increasingly affected by the way stakeholders reward tanneries' environmental performances. All the efforts sustained in Europe over the years deserve to be valued more by public authorities and better incentivised through measures encouraging environmental investments and implementing tax credits in relation to the environmental expenses incurred.

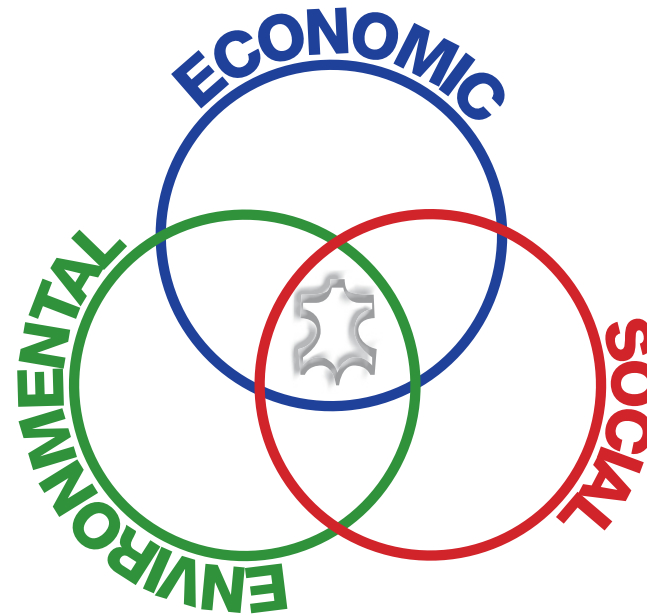
Priorities for sustainable

The information outlined below provides an indication of the priorities that the associations involved in the survey have identified, under the three key elements representing the sustainable development paradigm: Economic, Environmental, Social. The logical scheme is based on a method defined as “Gap Analysis”. It allows identification of the factors that are strategic for the attainment of sectoral sustainable growth objectives and the gap between the performance of each individual factor considered under current circumstances and the optimum conditions that can be reached under the objectives set.

The priorities are herewith briefly described and classified according to the 3 sustainability pillars (ECONOMIC – ENVIRONMENTAL - SOCIAL).

ECONOMIC

In general terms, from an economic point of view, the sustainable development of European tanneries can only be achieved by “Remaining competitive and ahead of competition”. When raw materials typically represent some 50% of leather production costs and competitors in many third countries enjoy up to 40% lower prices of local hides and skins through the enforcement of unfair export restrictions, remaining competitive on the global market becomes almost a miracle. European tanneries are located in high cost countries, where all industrial costs are



Sustainability is often depicted as the intersection of three Sets, representing solutions coping with environmental, social and economical constraints, known as the “three pillars”

far higher than those in the most important non-European competitor countries. In this context, European leather production historically positioned itself at the top end of the market, constantly seeking to improve quality and to innovate its offer to the market. In order to achieve this goal and to remain present on the market there is a need for:

- *Free and fair access to raw materials*
- *Reciprocity in the access to leather markets*
- *Improved access to finance*
- *Research and technological development towards higher levels of efficiency*
- *Innovation and support for the development of new products*
- *Creating a customer and consumer demand for ethically produced, sustainable products with a low environmental impact*
- *Effective solutions against “social and environmental dumping”*

ENVIRONMENTAL

At consumer level, tanning has not a brilliant reputation with regard to environmental protection. This perception contrasts with the technological progress of European tanneries towards environmental sustainability that the industry has undertaken in modern times. Environmental improvements have been deployed mainly to guarantee

tanning

compatibility of industrial production with civic requirements in the communities where tanneries were present but are becoming increasingly important as a marketing tool aimed at orientating consumers' purchasing decisions. In particular, the last 50 years, European tanners have produced astonishing environmental achievements, through active cooperation of all the actors in the technological supply chain. Tanneries of today consume less water, less energy and have substituted dangerous chemicals. They treat their wastewater efficiently and recover and recycle most of their organic waste. Further technological development, combined with innovation in environmental communication and harmonisation of international standards on product environmental footprint rules are necessary to guarantee the sustainable development of tanneries in general and the European sector in particular. Some key priorities identified are therefore linked with environmental footprinting, with process techniques and with end of pipe technologies:

- *Identification of appropriate and harmonised methodologies regarding Life Cycle Assessment – Carbon/Water Footprint*
- *Implementation, as appropriate, of Ecodesign within the whole leather value chain*
- *Optimisation of water use and wastewater management*
- *Improved levels of energy efficiency*
- *Waste minimisation through increased reuse and recycling of by-products*

- *Standards and regulations rewarding environmental performance.*

SOCIAL

Under the aspect of the Social pillar of sustainability, the tanning industry, again, has different “stakeholder specific” implications, leading to various development strategies. Local communities, social and environmental NGOs, workers and their trade unions, pupils, students and apprentices, are examples of stakeholders that interact with tanneries and can have an impact on their development. When tanneries are aggregated in industrial districts (as it is the case for the majority of companies in southern Europe), the wealth of the territories mostly depends on leather. Recent multi-stakeholder engagement experiences have shown their effectiveness in identifying dialogue platforms to discuss social (and environmental) issues related to leather production. However, more work is required, in particular on the following topics:

- *animal welfare stewardship practices*
- *efficient local raw material sourcing*
- *image building and attractiveness of the sector to new generations*
- *Corporate Social Responsibility branding*
- *Skills development and the support of first class education and training at sector level*

COTANCE COUNCIL CALLS ON THE EUROPEAN COMMISSION FOR URGENT ACTION IN THE AREA OF LEATHER INDUSTRY RAW MATERIALS

The COTANCE Council of October 12, 2010, gathering the representatives of the European leather industry reviewed the sector's state of trade expressing highest concern over the increasing scarcity of hides and skins and worrying price developments.

Access to raw materials at reasonable prices has become the prime issue for all the sector's operators. Prices have rocketed since the beginning of 2009 reaching unsustainable levels risking jeopardising the incipient post-crisis market recovery.

Demand for leather from European tanneries is recovering but is still fragile following the main impact of the financial crisis. When raw material prices increase significantly and tanners have to pre-finance operations with own resources, the situation becomes unsustainable.

Raw materials' price volatility is exacerbated by the proliferation of export restrictions applied by an increasing number of trade partners while access to European resources remains open.

Subsidised access to European raw materials by extra-EU competitors constitutes a serious threat as it reduces availability and drives prices up. Business partners need to understand the underlying price pressures being placed on the industry.

Code of Conduct in the Leather and Tanning sector

FOREWORD

COTANCE (European Confederation of the Leather Industry) and the ETUF:TCL (European Trade Union Federation of Textiles, Clothing and Leather) convened within the Social Sectoral Dialogue at European level, re-affirm their earnest allegiance to the respect of human rights at the workplace.

The European signatories of the present Code are thus favourable to fair and open world-wide trade, based upon the respect of the ILO conventions as well as on the international principles regarding Human Rights and human dignity.

The Social Partners agree to work towards a European Leather and Tanning sector that is productive, internationally competitive, but also based on the respect of human rights. They recognise their responsibility towards the

workers, having regard to the conditions in which they produce or provide their services or these are distributed by the affiliated enterprises of their respective organisations.

Article 1 CONTENT OF THE CODE OF CONDUCT

COTANCE and ETUF:TCL call on their members to actively encourage companies and workers of the European leather and tanning sector to respect and to include, directly or indirectly (including sub-contracting) in their possible codes of conduct in all countries, world-wide, in which they operate the following ILO conventions:

1.1 *Ban on Forced Labour (Convention 29 & 105)*

Forced Labour, slave labour or obligatory labour are banned. The workers will not have to give their employers a financial guarantee or their identity papers.

1.2 *Ban on Child Labour (Convention 138 & 182)*

Child labour is forbidden. Only workers aged 15 or more or older than the compulsory school age in the countries concerned are permitted to work. It should be guaranteed to provide measures with a view to help the concerned children by offering schooling possibilities and transitional financial help.

1.3 *Freedom of association & right to collective bargaining (Conventions 87 & 98)*

Workers and employees have the right to form or

join a trade union of their choosing. Workers' rights to form trade unions, to join them and to negotiate collectively is recognised. Workers' representatives will not be subject to discrimination and will have access to all work places if such access is necessary for allowing them to perform their functions of representation (Convention 135 & Recommendation 143 of ILO).

1.4 Non-discrimination of employment (Convention 100 & 111)

The equality of opportunities and treatment will be applied to workers whatever their race, their colour, their sex, their religion, their political opinion, their nationality, their social origin or any other distinctive characteristic.

The signatories of the present code call on their members to also respect and include in their possible codes of conduct, the following clauses.

1.5 Reasonable working hours

The number of working hours must be in conformity with the legislation and the rules in force in the industry. Workers can not be asked to work regularly over 48 hours per week and they will be entitled to one day of leave every 7 days at least. Overtime hours will be provided voluntarily provided that they do not exceed 12 hours per week, that they will not be requested regularly and that they always be compensated.

1.6 Decent working conditions

The workers will benefit from a safe and clean working environment and the best professional practices will be applied with regard to health and safety, having regard to the operating knowledge in the industry and to all specified risks. Any type of physical abuse is strictly forbidden, as well as threat, punitive practice or exceptional disciplinary

practice, sexual or other harassment as well as any act of intimidation from the employer.

1.7 Payment of a decent remuneration

Salaries and allocations paid have to be in conformity with the minimum legal rules and with the minimum rules in the industry and should allow workers to face their basic needs and ensure them a living wage. Deductions on salaries in the context of disciplinary measures are forbidden.

Article 2 CIRCULATION, PROMOTION AND IMPLEMENTATION

The implementation refers to the activities necessary to the application of the Code at all levels.

2.1 COTANCE and the ETUF:TCL commit themselves to promote and to circulate the code in the relevant languages at all levels, by 31 December 2000, at the latest.

2.2 COTANCE and the ETUF:TCL call on their respective members (lists in annex) to adopt this code and to encourage its progressive implementation at company level.

2.3 COTANCE and the ETUF:TCL will set in place, when needed, training and awareness programmes.

2.4 COTANCE and the ETUF:TCL will call on their member organisations to integrate the code as a pre-requisite in all contracts with their sub-contractors and their suppliers. COTANCE and the ETUF:TCL will thus encourage the companies to make sure that the code is understood by their sub-contractors/suppliers and their respective workers.

Article 3 FOLLOW-UP, ASSESSMENT AND REDRESS MECHANISMS

3.1 COTANCE and the ETUF:TCL agree to follow-up, in the framework of the Social Sectoral Dialogue at European level, the progressive accomplishment of the implementation of the present code of conduct.

3.2 To that effect, COTANCE and the ETUF:TCL will conduct at least a yearly evaluation of the implementation of the present code, the first taking place no later than 30.06.2001. They could ask, among others, the Commission or Member States to supply the necessary assistance in this respect.

3.3 COTANCE and the ETUF:TCL agree that the implementation of the results of the code have to be controlled in an independent fashion, guaranteeing the credibility of the control to all interested parties.

3.4 COTANCE and the ETUF:TCL may, in the framework of the European Social Sectoral Dialogue, decide jointly and freely to start any other initiative in the pursuit of the implementation of the present code.

Article 4 MOST FAVOURABLE CLAUSE

COTANCE members or the affiliated companies can introduce more favourable clauses in their respective possible code of conduct. The implementation of the present code can in no circumstance constitute an argument for reducing the more advantageous clauses already in place.

Annex: list of members
Brussels, 10 July 2000.

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*This project has been funded with support
from the European Commission*



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FILCTEM (IT), CGT (FR), FITEQA (ES), FITAQ-UGT (ES),
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*Site for the project:
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