

UNIONE NAZIONALE INDUSTRIA CONCIARIA

# Sustainability

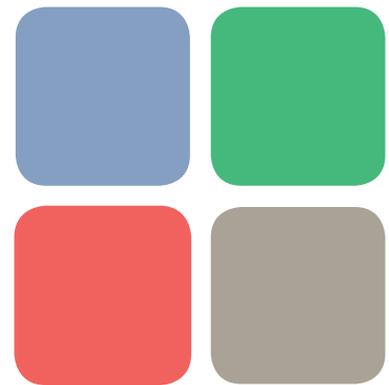
Report

# Sustainability

Report

**UNIC**  
UNIONE NAZIONALE INDUSTRIA CONCIARIA

# Introduction



This annual report has been published by Italian tanneries, members of the Italian Tanneries Union (UNIC – Unione Nazionale Industria Conciaria), since 2003 and is an internationally unparalleled example of excellence in social and environmental conduct. The historical data confirms the industry's capacity for innovation that drives all of the industry's markets.

The report is now centered around "sustainability" as defined by the UN in 1987 (see the report of the WCED, "Our Common Future").

The leather industry in Italy is of strategic importance to the nation, as it encompasses nearly 1,300 enterprises, employs 18,000 people and generates revenues of just over €4.82 billion.

In 2012, this level of revenues kept Italy at the top of the rankings worldwide (at 16% of global revenues and 65% of EU revenues).

Italy accounts for 25% of all exports of finished hides around the globe and leads the world in technology, style and quality. Leather creates jobs and wealth in a variety of fields: bags and other leather goods; footwear; interior design; motor vehicles; and fashion.

Tanneries play an essential role in protecting the environment by making use of a byproduct of the food industry that would otherwise create

serious health problems and be very expensive to dispose of. Moreover, Italian tanneries are able to create a product of universally appreciated excellence while following exemplary quality and environmental impact standards.

The tanning process is increasingly clean, consumes less energy, water and chemical substances, and achieves high levels of waste reuse and recycling.

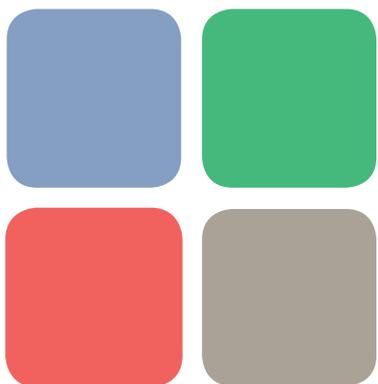
The report also underscores the social focus of the industries businesses, which are primarily organized into geographic districts so as to better promote a culture of hard work and initiative.

This also makes the enterprises more competitive and enhances labor relations, as witnessed in the second edition of the UNIC's code of conduct and social responsibility, which has also been signed by the trade unions and is the only document of its kind among industrialized nations.

The code calls for the respect of human rights and working conditions, protection of the environment, development of the community, professionalism in business relations, product quality, and consumer protection.

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## Sustainability Report



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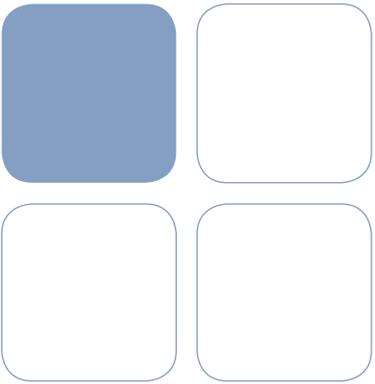
The Italian tanning industry, which comprises 1,282 businesses and 17,667 employees, ended 2012 once again as the world leader in terms of total revenues (at 16% of the global total and over 60% of EU revenues), internationalization (accounting for 25% of the world's exports of finished hides), environmental and social sustainability, technology, style and quality.

The overall value of Italian tanning production was just over the 4,820 million Euro mark, so remaining basically stable compared to the previous year, whereas volumes came in at around 126 million sqm and 34,000 tons of sole leather, which were down on 2011.

It was the third year running that the industry showed a non-secondary discrepancy between the results in terms of value and volumes.

The reason for this difference can again be found in the continual increases in the price of raw materials and the consequent adjustment of the prices of finished hides. For example, the prices for bovine hides at the end of the year was 16% higher on average from the start of the year for adult and mid-sized hides and 14% higher for calf hides.

The stability in sales for 2012, the total value of which continues to fall below the pre-crisis levels of 2006 and 2007, remains in line with the industry average for the last decade. This was again made possible by the performance of the international markets (exports down 0.4%). The "apparent" domestic market (i.e. excluding exports to the foreign facilities of Italian manufacturers, typically located in eastern Europe, northern Africa and the Far East), on the other hand, fell by 2.3% and has not seen growth since 2006.



## Regional figures

The Italian tanning companies are traditionally located into industrial districts, whose organisational and development dynamics are so successful that they are considered to be an example of excellence not only on a national level, but also globally.

Roughly 90% of all production is concentrated within three regional manufacturing districts, each with their own particular characteristics in terms of product, processes and organizational models, traits which may have actually changed over the years (which testifies to the dynamic nature of this district system).

The biggest district in terms of production and employees (more than half the national total) is in Veneto, in Valle del Chiampo, near Vicenza. It is characterised by the coexistence of small/medium-sized companies and large industrial groups, whose main manufacturing specialisation is adult bovine leather earmarked for customers within the upholstery (furnishings and car interiors), the footwear and leather goods industries. In 2012, the value of production in the district entered a slightly positive sign (+0.7%), thanks to an increase in exports (+2.5%), which was the best result on foreign markets among the various tanning regions. The trend in sales was boosted by customers within the car interior industry followed by fashion (especially leather goods). However, sales to customers within the low-cost furnishings industry, especially on the domestic market, continued to struggle.

The district with the greatest number of tanneries is in the Tuscany region in the area of S. Croce sull'Arno, Ponte ad Egola and Fucecchio (in the provinces of Pisa and Florence). The Tuscan district, which accounts for 29% of the total Italian turnover, is renowned for its high level of craftsmanship and flexibility when it comes to production, which is primarily destined to haute couture.

The output mainly covers calfskins and medium/large-sized bovine hides, some of which are used to make sole leather, for which almost all of Italian production is found in Ponte a Egola. In terms of value, the Tuscan district brought last year to a close with the best result, among the various districts (turnover +1.3%, exports +1.4%) despite the disappointing results in sole leather volumes, which were down by double figures.

The tanning pole in the region of Campania, that specialises in tanning sheep and goat leather for apparel, footwear and leather goods sectors and which is located mainly in the area of Solofra (Avellino) with a few major companies also around Naples, accounts for 9% of the overall value of domestic production. In 2012, it registered a drop in the value of production (-7.5%), penalised mainly by the domestic market, faced with exports that were slightly down (-1%).

There is still a major concentration of tanneries in the Lombardy region (in the Magentina area, which manufactures sheep and goat skins for top fashion purposes), whose share is just over 5% of the national total. Last year it proved to be down by 4.5% in the value of production and by 6.1% in terms of exports.

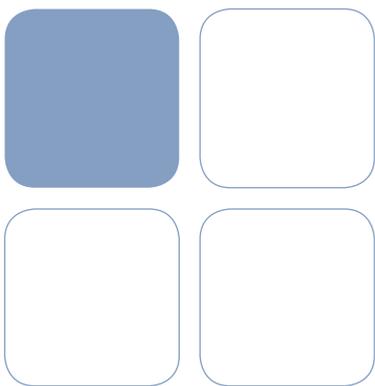
## Production per type of animal, destination market and customer bracket ranges

Above all, Italian tanneries traditionally process hides of bovine origin (77% of the total) and sheep and goat skins (22%), whose availability is linked to the level of meat consumption and, consequently, to the dynamics regarding the number of animals being slaughtered. Less than 1% of the hides and skins that are tanned in Italy refers to other types of animal (pigs, reptiles, deer, kangaroos ...).

2012 was a satisfactory year almost exclusively for bovine leather, whereas sheep and goats suffered a great deal (Fig. 2). Calves and the remaining category of "other animals" were, for the second year running, the types that achieved the best results in terms of value of the sales, thanks to demand from the top end of the market (the "other animals" category benefitted from the excellent trend in the sales of reptile leather). As for last year, bovine typologies partially offset their losses in terms of furniture and footwear, thanks to the increase in demand from manufacturers of car interiors and leather goods, whereas sheep leather lost out on all destination markets, with overall volumes down by double figures. The situation regarding goat leather was less disappointing, especially in terms of value.

The increase in prices for raw materials led to adjustments being





made in the price-lists of finished leathers of all the main animal types. On average, selling prices went up by 5.4% and even on those products that were decidedly down in terms of demand it was not possible to avoid putting their prices up (sole leather for example, whose price increased by an average of 6%).

Our most important client sectors (Fig. 3) belong to two massive macromerchandise categories: the fashion industry (footwear, leather goods, apparel) and the upholstery industry (furnishings, car interiors and shipbuilding).

The footwear sector is historically the main destination market, which just less than half of all Italian production is sold to. Currently, the second main destination is leather goods, which is the client industry that has expanded the most and in the most continuous way over the last ten years thanks to the growing international success of high fashion labels that specialise in accessories. This is followed, in terms of effect, by the upholstered furniture industry, which, over the last few years, after the explosive expansion during the 1990s, has shown a gradual yet intense downsizing in terms of demand and consumption levels, and the automotive segment, in tendential rise, albeit with frequent highs and lows, thanks to the increase in demand from the top end of the market. Finally, we have the garment

industry, which, in recent years, has been progressively down, due mainly to trends in fashion that have not been very rewarding for leather on a global level.

In 2012, the most outstanding destination market was that of car interiors, the only client industry to show a positive sign in terms of

the number of square metres purchased. This was followed by leather goods, which was basically unchanged compared to the previous year, and footwear, which was down by about 6%. Suffering once again were both upholstered furnishings (-9.8%) and garments (-13.8%).

The greater dynamism in demand from the highest customer bracket ranges (top end and high ranges) was confirmed and together they account for about 35% of all sales of Italian leather. The medium/high and medium ranges share still represent about half of all sales, whereas the remainder, always more marginal, is low-cost products.

## Export markets

For a number of years now, foreign markets have been an indispensable element for the growth and development of Italian tanneries. Their importance on the industry entire turnover, in tendential increase for more than thirty years, is, at the moment, equal to more than three quarters of the total, in terms of apparent influence.

In 2012, Italian export of tanned leather, including the types with fur, was destined to 121 countries, and, as a whole, was worth 3.7 billion Euros, without any major variations (-0.4%) compared to the previous year. This figure, just like last year, is not only higher than pre-crisis levels but it is close to the all-time peaks reached during the 2001-2002 period, so reconfirming the "driving force" role played by exports for the recent tanning dynamic.

Currently, more than half of our exports are destined to the European Union which is our main customer. Despite the widespread shift of part of the global production of manufactured goods towards Asia at the start of the new millennium was of lesser importance, in recent years (except 2012) the EC region is starting to pick up again on the export front. The Far East (25% of the total) is followed by the Russia-Balkan area (7%) and North America/NAFTA countries (6%). The analysis of the value of export per destination macro-area shows an increase in the export values to North America (NAFTA +17%), the Russian and Balkan area (+2%) and the secondary destinations (Africa, etc.), at +4%, whereas the two main client regions were down, namely the EU (but the traditional 15 EU countries were more or less stable) and the Far East (-3,4%).

In terms of the individual target nations, the China area, which includes Hong Kong, remained, for the eighteenth consecutive year, Italy's main export market (accounting for 19% of the total), despite losing 7% from the previous year.

Among the leading destination countries (Table 5), the most important increases were registered in the USA (+19%), France (+11%) and Portugal (+9%). The figure doubled for the USA compared to 2009, whereas for France and Portugal it touched on the all-time high in terms of export flow (even higher than the 2001-2002 period).

Among the other 'biggies' mentioned, the United Kingdom was also up (+2.3%). There was no variation with regards to Romania, whereas exports to Germany (-11%), Spain (-5%), Poland (-8%) and Tunisia (-3%) were all down.

# World share of Italian leather industry



## Purchasing markets for raw materials

(hides, skins and semi-finished leather)

The main raw materials within the industry are raw hides and skins, which are produced as a result of the animal slaughtering for food purposes, added to which are semi-finished leathers, wet blue and crust, that have already gone through a number of processing stages. On average, the value of these raw materials fluctuates between 40% and 65% of the value of finished produce and the purchasing strategies and dynamics are, understandably, essential elements in the corporate management and the commercial competition of any tannery. Given its limited size, the bovine, sheep and goat livestock of Italy structurally manages to cover less than 10% of what the Italian tanners as a whole require and, therefore, companies are forced to import the rest from abroad.

Last year, the Italian tanning industry imported raw or semi-finished hides from 121 countries, for an overall volume of 793,000 tons, which was down by 4% on 2011 (Table 2). In the breakdown by processing stage, 455,000 tons of raw hides (practically the same as the previous year), 330,000 tons of wet blue (-8%) and just under 8,000 tons of crust (-23%) were bought abroad. Also in this case, the growing dynamic in purchasing prices caused variations in value that were not just as negative.

The European Union historically represents the most important purchasing basin for Italian tanneries (Fig. 5). It currently accounts for 58% of all imports and has continued to increase over the last three years due mainly to the protectionism outside the European community and the

better quality of continental rawhide. This is followed, in terms of importance, by Latin America with 18%. A less primary, but still important, role is played by NAFTA countries (6%), Oceania (5%), Africa and Middle East (6%), the Russian- Balkan area (5%) and Asia (3%).

Compared to 2011, there was an increase in the quantities purchased from both the Community-based area (+3%) and Latin America (+9%). However, the figures were down by double digit for the other main supply regions: NAFTA -32%, Oceania -24%, the Russian-Balkan area -18% and Africa -17%. Asia registered a reduction of 3%.

## International leadership

Italy has always played a leading role on a global level within the tanning industry (Fig. 8). Such excellence, qualitative, technological, stylistic and environmental, can also be seen if we look at the effect that the Italian industry has on the absolute figures.

For years we have tackled unfair competition from the main non-European competitors (India, Brazil, Argentina, China...) which benefit from the protectionism of their raw materials (half of the world's rawhide is not up for free trade) and, at the same time, by the practice of social and environmental dumping.

Despite this, the value of Italian leather accounts for 65% of the European total and 16% on a worldwide scale; on the business front, however, it is estimated that 25% of the finished leathers exported from one Country to another is Italian and that 18% of the raw hides and semi-finished leathers that are sold on a worldwide level come into Italy.

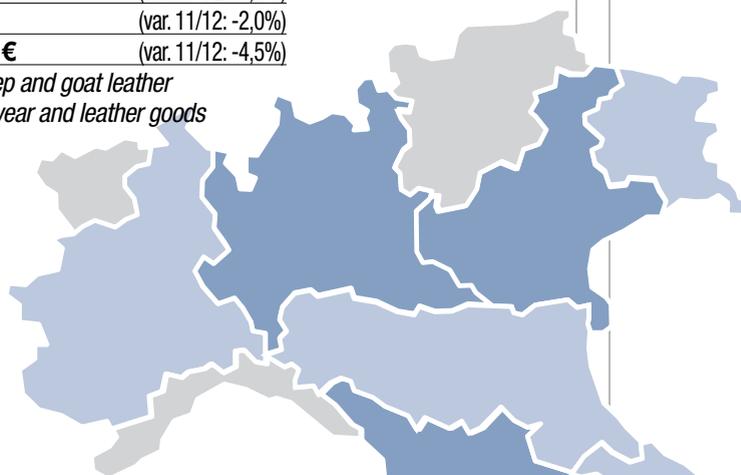
## LOMBARDY

Workers: **1.025** (var. 11/12: -1,9%)

Tanneries: **48** (var. 11/12: -2,0%)

Output: **265 mil. €** (var. 11/12: -4,5%)

*Sheep and goat leather  
for footwear and leather goods*



## VENETO

Workers: **8.220** (var.11/12: -1,6%)

Tanneries: **472** (var.11/12: -2,1%)

Output: **2.484 mil. €** (var.11/12: +0,7%)

*Bovine leather for footwear,  
furniture and leather goods*

## TUSCANY

Workers: **5.572** (var.11/12: -0,8%)

Tanneries: **549** (var.11/12: -2,0%)

Output: **1.374 mil. €** (var.11/12: +1,3%)

*Bovine leather for footwear and leather goods*

## CAMPANIA

Workers: **2.068** (var.11/12: -1,4%)

Tanneries: **169** (var.11/12: -2,9%)

Output: **441 mil. €** (var.11/12: -7,5%)

*Sheep and goat leather for footwear,  
leather goods and garments*

## OTHER DISTRICTS

**Piedmont, Apulia, Marche,  
Emilia Romagna, Friuli Venezia Giulia**

Workers: **782** (var.11/12: -11,7%)

Tanneries: **44** (var.11/12: =)

Output: **255 mil. €** (var.11/12: -9,7%)

*Leather for footwear, leather goods and furniture*

Figure 1 - Italian tanning industry  
data by district (2012)

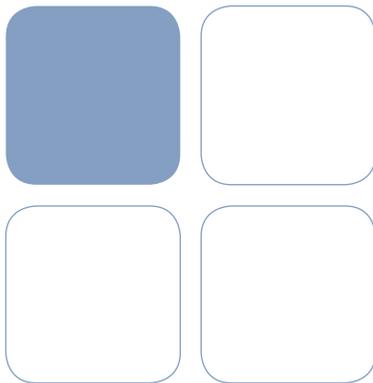
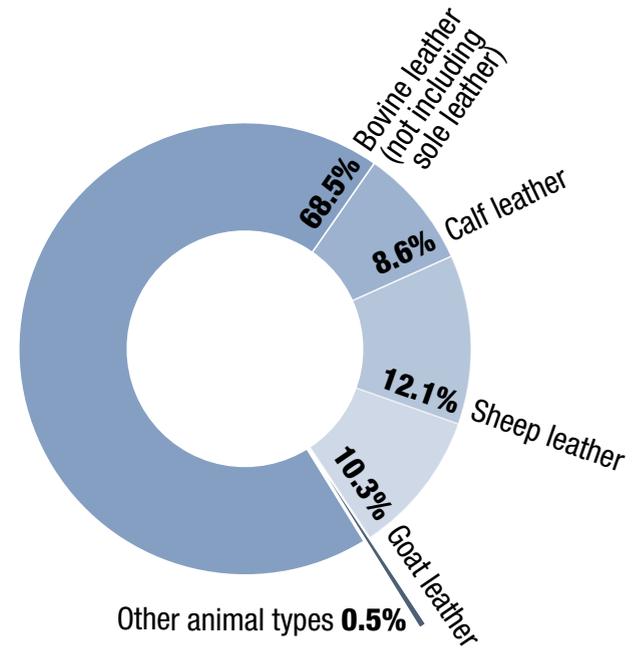


Figure 2 - Production by animal type  
% rate in volume (2012 - m<sup>2</sup>)



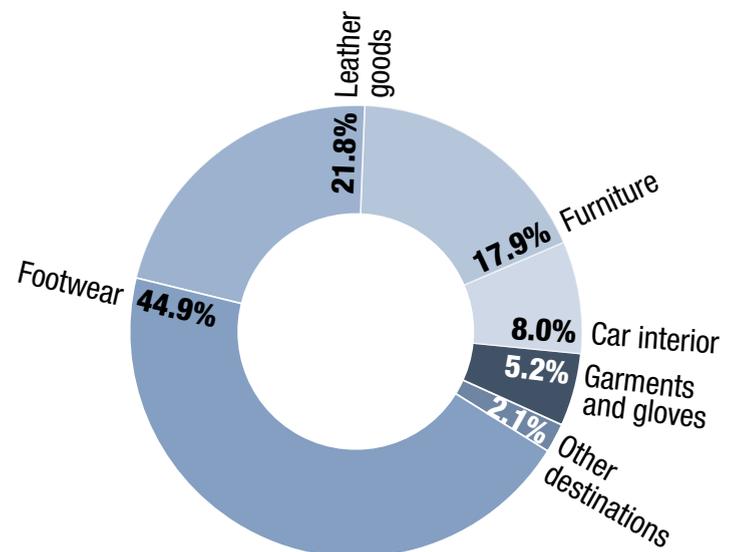
Source: UNIC 2012

Table 1 - Italian tanners' output

Italian leather industry	2012		Var % 2011/2012	
	Volume	Value	Volume	Value
	(milions euros)			
Leather output ('000 mq)	125,846	4,581.5	-5.6%	-0.4%
Sole leather (tons)	34,384	238.9	-13.4%	-8.2%
<b>TOTAL OUTPUT</b>	n.c.	4,820.4	n.c.	-0.8%

Source: UNIC 2012

Figure 3 - Production by destination sector  
% rate in volume (2012 - m<sup>2</sup>)



Source: UNIC 2012



sustainability





# Environmental

The environmental sustainability of leather essentially rests on three pillars: the raw materials processed; process efficiency; and pollution prevention and control. Each of these three pillars will be analyzed in detail in the chapter that follows.

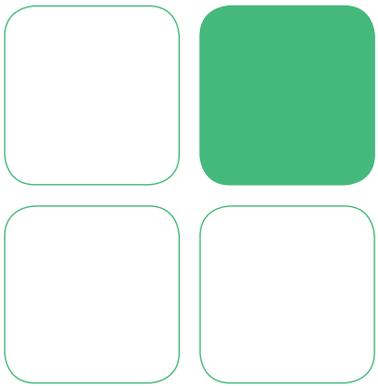
In terms of raw materials, the report will clearly show that over 99% of all hides processed in Italy are actual byproducts that the tanning industry recovers, thereby eliminating the need for disposal and reducing the environmental impact of the entire value chain.

A renewable resource may be defined as "a natural resource that is able to reproduce itself through natural or biological processes; therefore, products such as wool, milk and meat can be said to be renewable resources. In the same way, hides are "byproducts of renewable origin" that are recovered and transformed, through chemical and mechanical tanning processes,

into a material of great added value that is of strategic importance to various industries further down the value chain. As such, finished leather is a natural, renewable alternative to petroleum-based synthetic products.

In this edition, readers will also find trend data regarding economic and quantitative aspects of process efficiency and the prevention and reduction of pollution, all of which makes up what we call the "Environmental Report", which serves as a tool of accountability that encapsulates the economic and quantitative data concerning the environmental impact of the various production systems and enables us to organize this data so that it forms a body of information that can be used to assess the environmental performance of a specific activity within the industry.

Interpreted appropriately, this data provides a thorough look into environmental impact and the financial investment needed to manage this impact effectively.



Hides and skins

**the raw material**

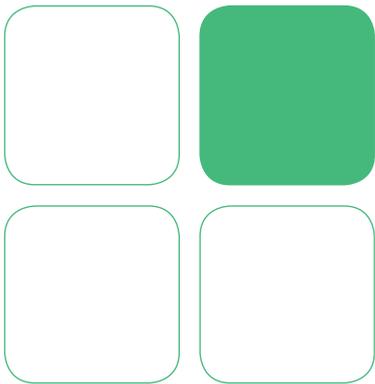
In order to more fully assess the environmental impact of manufacturing a given product, the international scientific community developed an approach known as life-cycle assessment (LCA), which considers the potential environmental impacts throughout a product's life cycle (i.e. cradle-to-grave) from raw material acquisition through production, use and disposal (see ISO 14040, 2006).

Because LCA calculations must, by definition, be implemented throughout all processes involved in creating a product, one of the most important factors, for which international agreement must be reached, is the definition of the "system boundaries", which determine the process that is to be considered the start of production (i.e. the cradle) and the one that marks the end (i.e. the grave).

The tanning process comprises various chemical and mechanical processes that are designed to transform a degradable organic material (i.e. the raw hides) into a product of great added value that is of strategic importance to industries such as footwear, fashion, interior design and transport.

As was pointed out in the previous section of this report, the Italian tanning industry makes use, primarily, of bovine, sheep and goat skins. These animal categories account for over 99% of the total volume of leather produced. The data reported below shows the volumes produced by type of animal over the period 2003 to 2012.





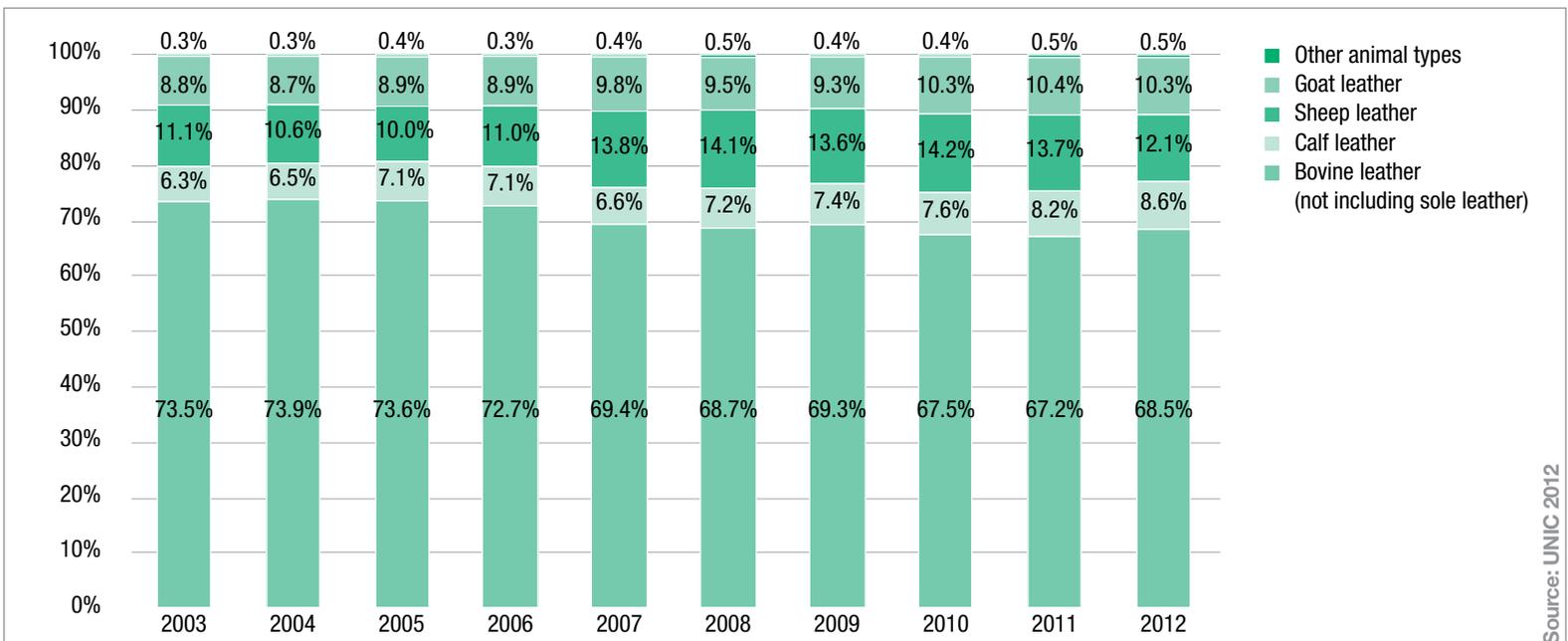
This information is key to determining the system boundaries. The main issue that the industry has studied closely is the inclusion or exclusion of processes that take place prior to the actual tanning, with specific regard to animal husbandry and agriculture, which, in certain cases, can account for up to 80% of the total carbon footprint and up to 99% of the water footprint.

For a careful analysis of the system boundaries of leather production based on the prevailing rules of LCA calculation, the first consideration to be made concerns the nature of the raw hides and skins. For LCA purposes, it is important to determine whether the hides/skins are to be deemed waste generated by an earlier ("upstream") industry (i.e. meat) or a co-product/byproduct of that industry.

If we consider skins/hides to be a waste product of the upstream industry, the entire environmental impact should be assigned to the primary product of the value chain up to that point, thereby excluding agriculture and animal husbandry from the system boundaries of the LCA for leather.

International legislation primarily considers skins/hides to be a byproduct of the food industry. Clear examples of this can be found in European legislation: Reg. 1069/2009 and Reg. 142/2011 concerning byproducts of animal origin. As such, it is essential to conduct more detailed analysis of the nature of the various processes that

Figure 1 - Production by animal type  
(% rate in volume, 2003 - 2012)



have led to the generation of the byproduct. In particular, the internationally available scientific literature concerning LCA defines the issue of co-products (byproducts) of renewable origin as a highly complex technical matter, but which is more easily understood by answering two questions:

*Are raw hides and skins a byproduct of renewable origin?*

*and*

*Do raw hides and skins replace, at least in part, other products?*

To answer the first question, we must first look at a generic process of co-production.

In any process that generates one or more co-products (byproducts), there is a product that is said to be determinant. A determinant is the product that “determines” the production volumes of the given process. If that product was not to be produced, the process would not take place. There can be only one determinant product at any given time. In the specific case of the tanning value chain, in 99% of the cases, availability of the raw material is tied to the consumption of meat and, consequently, to trends in animal slaughtering. Therefore, it can be said that the determinant is not the hides/skins, but the meat.

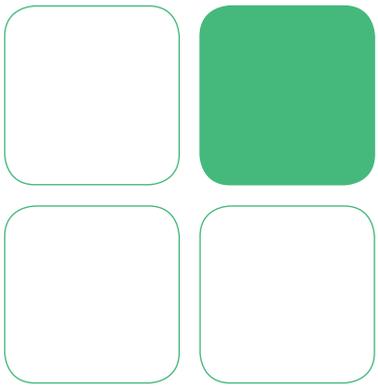
Given the definition of a renewable resource as “a natural resource that is able to reproduce itself through natural or biological processes over time”, we can say that hides/skins are, in the vast majority of cases, byproducts of renewable origin.

To answer the second question, given the composition of the materials produced using finished leather, there is little question that leather itself serves as the main alternative to other materials (mostly synthetics) in the production of various goods (e.g. footwear, leather goods, clothing, vehicle interiors, and other upholstered products).

In conclusion, it can be said that, in the case of leather produced using raw materials coming from animals bred for other human consumption (e.g. dairy, wool, meat), the system boundary is the slaughterhouse, where the processes take place that prepare the skins/hides to be used by tanneries (e.g. preserving the skins/hides through cooling or salting), thereby ending outside the gates of the tannery. In other words, if the animals are raised to produce meat, milk or wool, and not solely to obtain their skins/hides, the environmental impact of agriculture and animal husbandry are to be ascribed solely to those products (and not to leather).

Indeed, the principles for determining the environmental impact of leather described above have been defined in a technical report issued by the United Nations Industrial Development Organization (UNIDO).





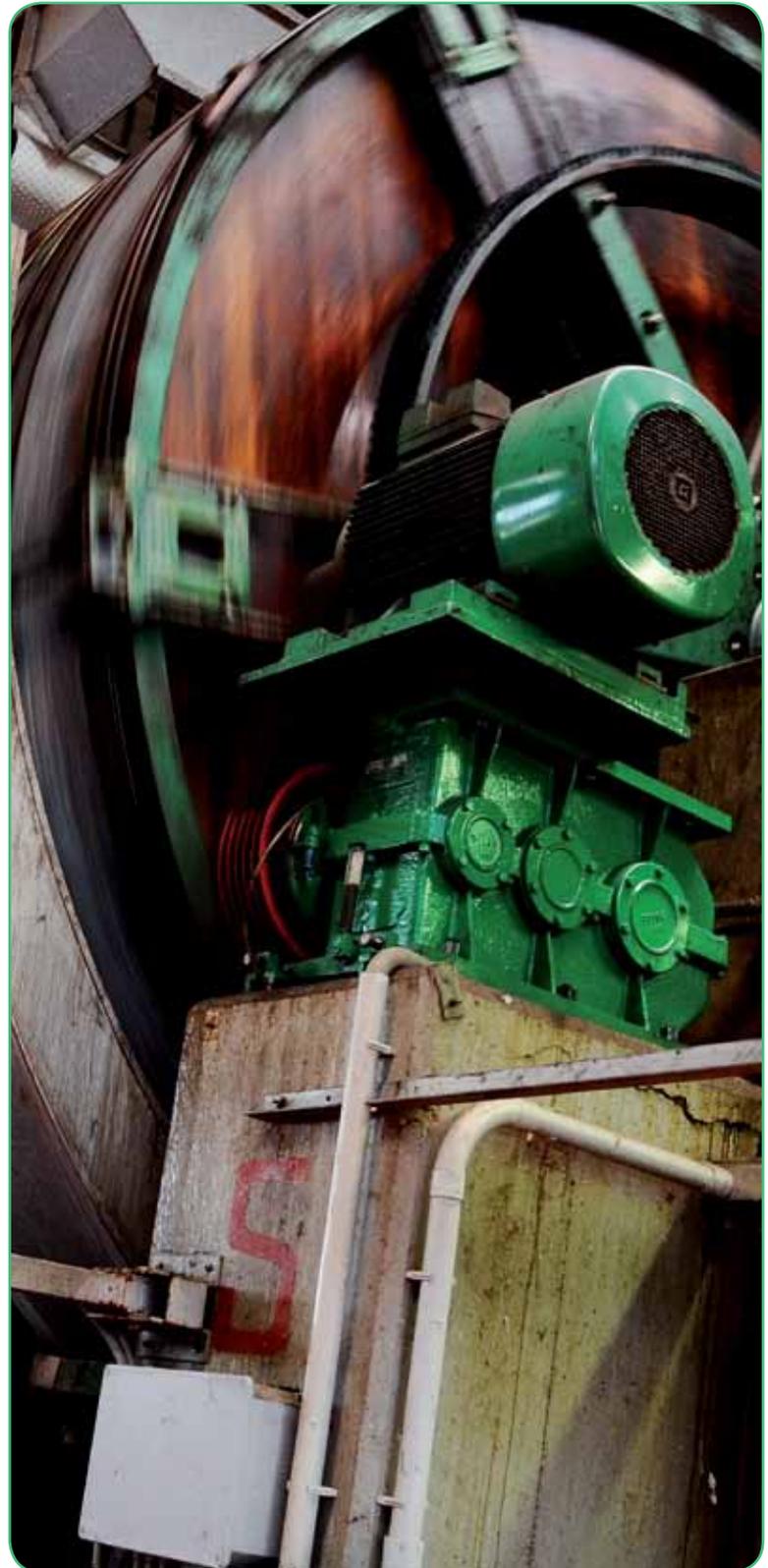
The environmental  
performance

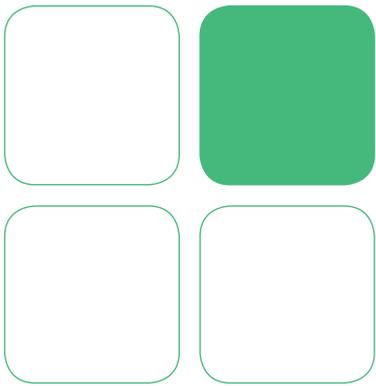
**of Italy's  
tanneries**

The Environmental Report is a tool of accountability that presents a collection of quantitative and economic data regarding the environmental impact of the industry's production. The information contained herein is used to assess the environmental performance of the industry's activities.

It also includes financial data that represent information of a quantitative or economic nature.

With a view to calculating environmental expenses, reference was made to the definition offered 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".





## Consumption of chemicals

Chemicals are used at various points in the tanning process, acting on the structure of the skins in order to give them the look and other physical properties needed to produce the finished leather goods. Tanning chemicals are constantly evolving. Products that are more effective and more environmentally friendly are being developed through partnerships between tanneries and product manufacturers. New articles of higher quality in terms of both look and overall performance are always developed in accordance with laws and regulations concerning both the environment and safety in the workplace.

In 2012, an average of roughly 1.78kg of chemicals were used for every m<sup>2</sup> of finished leather produced. Of these chemicals used by tanneries, 32% have been classified under EU regulations (and transposed into national legislation) as substances that are dangerous to handle and use. It should be noted, however, that such classification does not point to the dangerousness of the leather goods themselves, but to the need to take care when handling and storing the chemicals within the tannery.

The figures on costs connected with reducing the environmental impact of using chemicals show that tanneries are constantly investing in the testing and experimentation of products that are more environmentally friendly, which accounts for over 44% of the total of specific environmental costs. The expenses incurred in carrying out the various activities involved in reducing the impact of the chemicals used mainly refer to personnel (at 58.1% of the total) and consumables (22.6%).



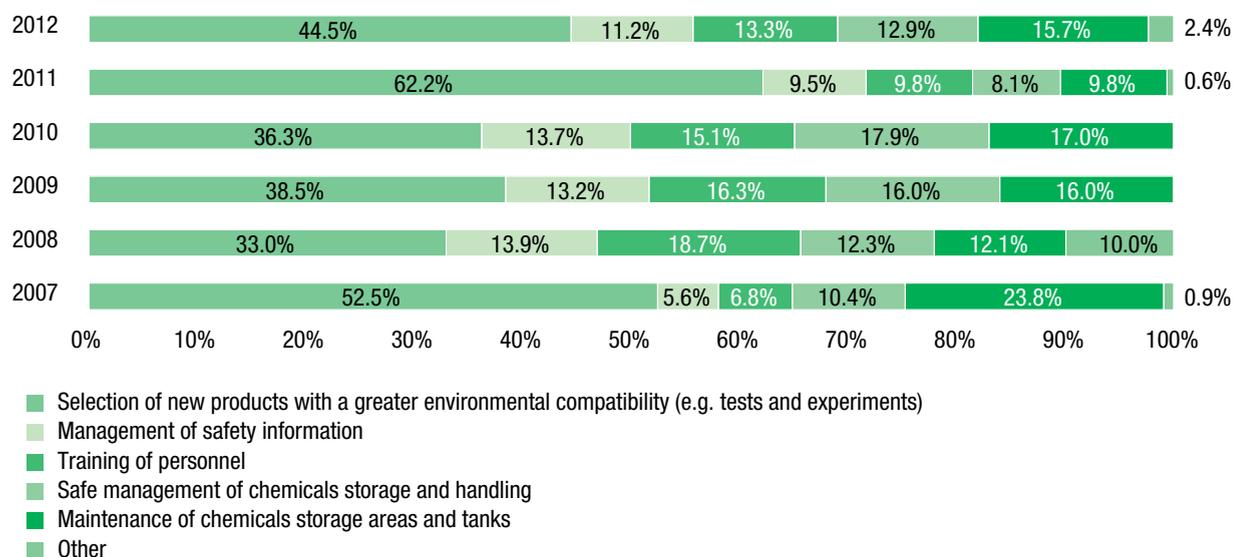


Table 1 - Chemicals: highlights

INDICATOR	2007	2008	2009	2010	2011	2012
Chemicals per product unit (kg/m <sup>2</sup> )	1.84	1.97	2.25	1.65	1.91	1.78
Products containing substances classed as dangerous (%)	36%	33%	31%	28%	31%	32%
Costs incurred to reduce the environmental impact of chemicals/turnover (%)	0.14%	0.13%	0.08%	0.10%	0.19%	0.23%

Source: UNIC 2012

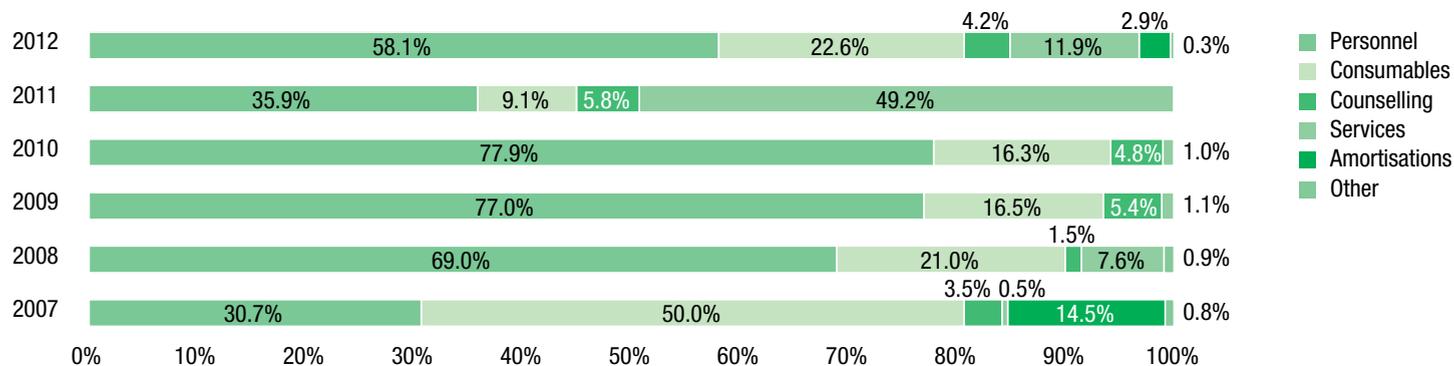
Figura 1 - Figure 1 - Management of chemicals:  
characteristic actions during 2007 - 2012 (%)



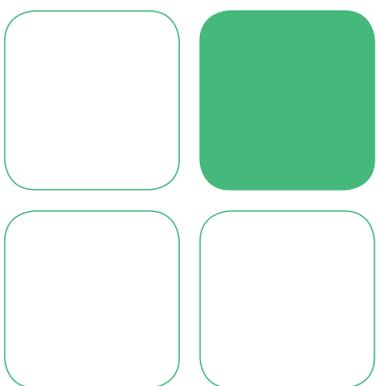
Source: UNIC 2012

25

Figure 2 - Management of chemicals:  
cost breakdown 2007 - 2012 (%)



Source: UNIC 2012



Consumption of **energy**

The energy used by tanneries mainly goes to heat generation and running machinery. The electricity used largely goes to plant and machinery, whereas the thermal energy is used to heat the workplace, the water used in production and any machines that require heat to operate.

Consumption per unit produced is expressed in tons of oil equivalent (TOE) per 1,000 square meters of leather produced (TOE/1000m<sup>2</sup>). Figure 3 provides these figures over the 11 years surveyed. The figure for 2011 is 1.24 TOE/1000m<sup>2</sup>, bringing the average for the period to 1.33 TOE/1000m<sup>2</sup>.

The energy sources used to meet the tanneries heating needs remain primarily natural gas and other fossil fuels. The electricity consumed comes from a variety of suppliers and an equally varied selection of energy sources. Renewable energy use is constantly on the rise as a growing number of businesses choosing renewable energy to meet significant percentages of their energy needs.

Surveys such as the one conducted for this Environmental Report may show a certain variability in per-unit energy consumption due, in part, to the varying levels of energy needed for the production processes, to a variable mix of raw materials used, and to improvements in the energy efficiency of plant and machinery.

In order to reduce energy consumption, tanneries can intervene in various areas:

- Using more efficient plant and machinery
- Developing processes that require less energy
- Perfecting best practices in operations and other implementing other low-cost measures

The first two areas listed accounted for over 90% of all environmental costs connected with reducing energy consumption in 2012. In terms of the types of expenses, the majority went to personnel (at 39%) and depreciation and amortization (at 36.3%).

Table 2 shows that costs incurred to reduce energy consumption remained virtually constant over the period 2007-2012 in terms of their ratio to total revenues.



Figure 3 - Power consumption per product unit  
2002 - 2012 (TOE/1.000 m<sup>2</sup>)

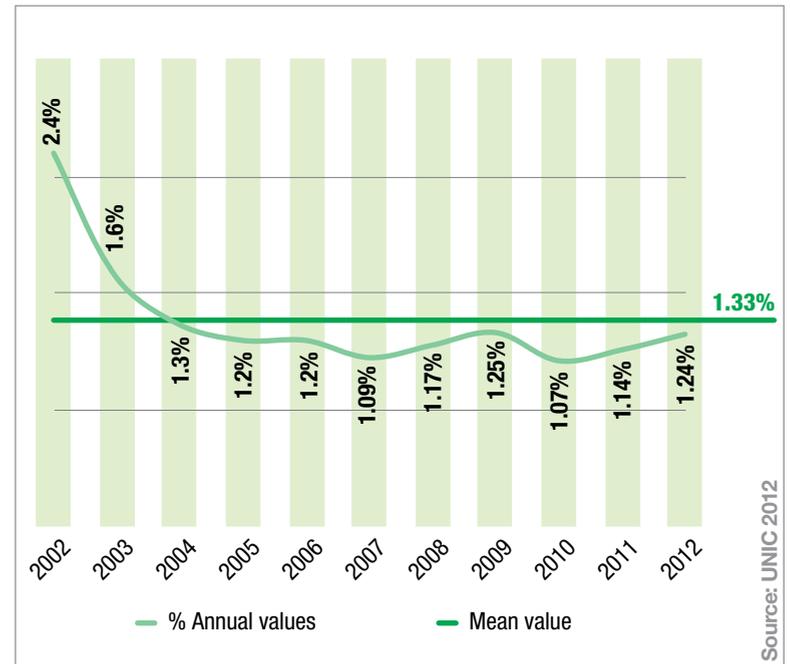
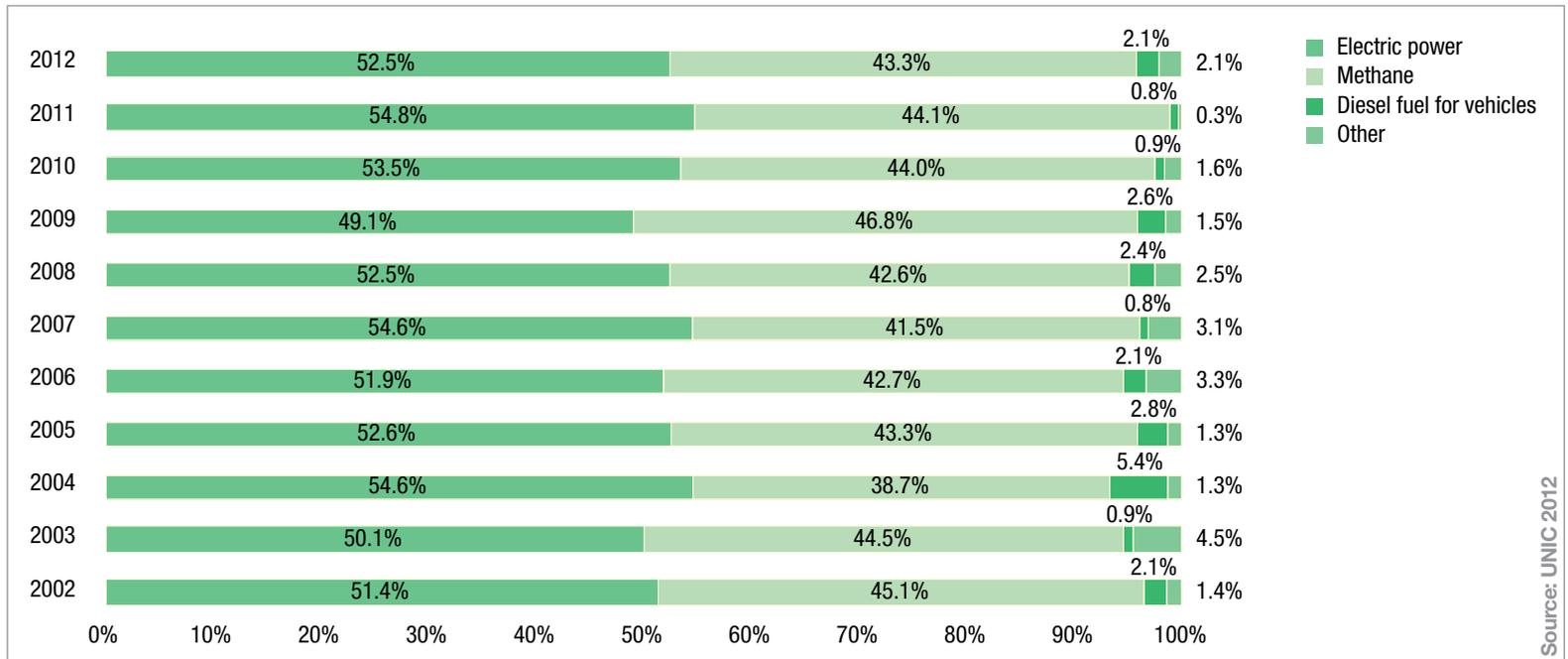


Table 2 - Power consumption, highlights

INDICATOR	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Energy consumption per product unit (TOE/1.000m <sup>2</sup> )	2.40	1.60	1.30	1.20	1.20	1.09	1.17	1.25	1.07	1.14	1.16
Electric power share of total consumption (%)	51.4%	50.1%	54.8%	52.6%	51.9%	54.6%	52.6%	49.1%	53.5%	54.8%	52.5%
Methane share of total consumption (%)	45.1%	44.5%	38.8%	43.3%	42.7%	41.5%	42.7%	46.8%	44.0%	44.1%	43.3%
Costs incurred to reduce energy consumption/turnover (%)	-	-	-	-	-	0.04%	0.04%	0.03%	0.06%	0.09%	0.12%

Source: UNIC 2012

Figure 4 - Power consumption breakdown:  
comparison 2002 - 2012 (%)



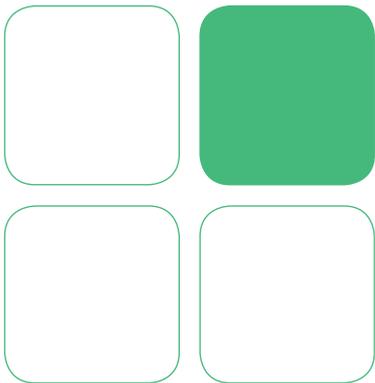
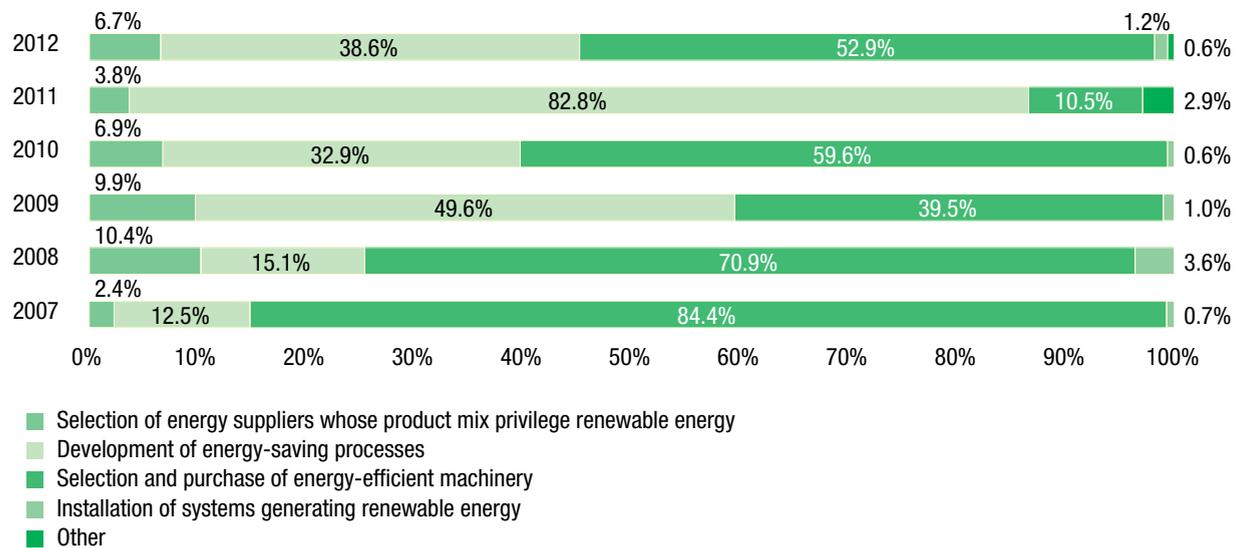


Figure 5 - Reduction of power consumption:  
characteristic activities 2007 - 2012 (%)



## IND - ECO: ENERGY EFFICIENCY OF THE LEATHER SECTOR

Progetto supportato da:



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UNIC leads a group of 16 European partners sponsored by the European Commission (EACI Agency) within “Intelligent Energy Europe”, a programme aimed at implementing a project named IND – ECO “Industry Alliance for reducing energy consumption and CO2 emissions”. The project, which started in May 2012 and will last for 3 years, is aimed at developing the best conditions to help tanners and leather manufacturers – especially in the footwear sector – invest in energy efficiency.

### The project has four primary objectives:

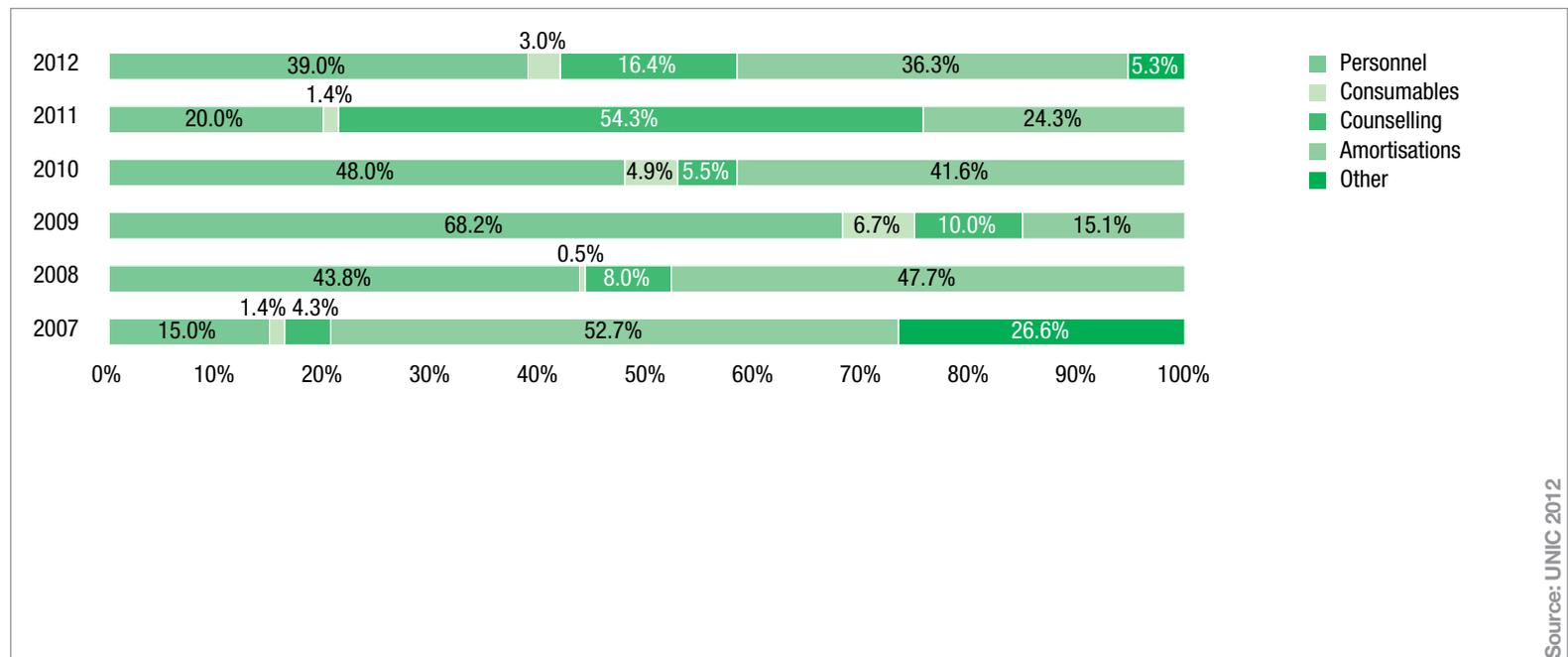
- identifying, by means of energy auditing, the main areas where energy efficiency can be implemented in tanneries and in the leather supply chain;
- identifying the best technical and technological solutions available in the domestic and European scenario to reach energy efficiency;
- starting agreements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

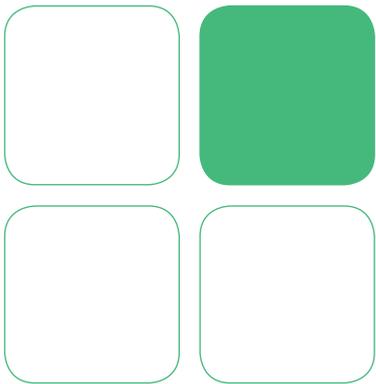
### The companies concerned in the IND – ECO project will be able to:

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

For enquiries: [ambiente@unic.it](mailto:ambiente@unic.it)  
[www.ind-ecoefficiency.eu](http://www.ind-ecoefficiency.eu)

Figure 6 - Reduction of power consumption:  
 cost breakdown 2007 - 2012 (%)





## Water supplies and **wastewater disposal**

In 2012, a total of 107.8 liters of water were consumed for every square meter of leather produced. The average for the 11 years studied comes to just over 115 l/m<sup>2</sup>.

The water used by tanneries comes from authorized, optimized wells or through provisioning agreements with civil and industrial aqueducts. The related figures have been obtained from the tanneries based on meter readings from their wells and/or of the industrial aqueducts used and so can be considered to be accurate.

Water is the primary medium in which the chemical tanning processes occur, and it is also used to wash the hides, the machinery and the workplace generally.

The amount of water consumed by tanneries depends largely on the mix of raw materials used. Tanneries that carry out the entire tanning process generally consume more water than those that start their production processes from some semi-finished state, such as wet blue.

Water provisioning and treatment are the most significant issues that tanneries face in their efforts to protect the environment. In order to optimize the treatment of wastewater and minimize related costs, the main tannery districts have created common facilities that have historically also helped to purify the city water used in their local communities.



In order to reduce the amount of water consumed per unit produced, tanneries work to:

- develop efficient processes
- choose and purchase machinery that uses less water
- monitor and quantify consumption levels.

A breakdown of the costs associated with such activities is shown in Figures 8 and 9.

Roughly 95% of the water consumed by tanneries is then discharged as wastewater. The remainder comprises the moisture that remains in the leather, water that evaporated during production, or water contained in other waste to be treated.

Tanneries only remove the larger particles from the water and conduct some pretreatment before sending the wastewater out for purification.

The water purification consortia set an example internationally of intercompany cooperation for environmental sustainability. Constant investment, local and national accords, and other research and innovation have helped tanneries to optimize the treatment of wastewater and

sludge. The water treatment facilities have continued to evolve in Italy's various tannery districts right from the very beginnings of industrialization in the field. Today, these treatment facilities also make a significant contribution to purification of wastewater for the communities in which the tanneries operate.

Tanneries not located within industrial districts handle purification themselves by discharging wastewater into the public sewage systems.

Therefore, beginning in 2002 (or in 2004 for certain indicators), the data needed to analyze wastewater management is supplemented with data provided directly by the central purification plants. This involvement ensures the statistical significance of the data, which, for this edition of the report, concerns some 600 tanneries located in the Italian regions of Veneto, Tuscany and Campania.

Over 40% of the wastewater arriving at the treatment facilities is of public origin (Fig. 10), while over 50% comes from tanneries, with wastewater or other liquid waste from other industries accounting for the remainder.

Analyses of purification efficiency are conducted based on the main parameters characterizing tannery wastewater:

- suspended solids;
- COD;
- total nitrogen;
- ammonia;
- chromium III;
- sulfides;
- chlorides;
- sulfates.

Figure 11 provides the numbers on purification efficiency (comparing pollutant levels before and after the purification process) since 2002.

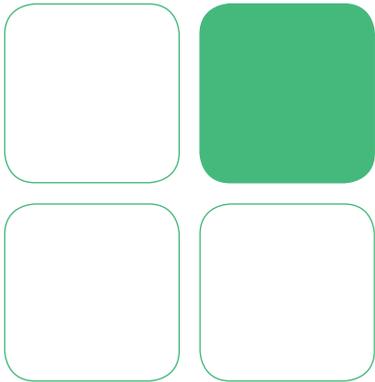


Figure 7 - Water consumption per product unit  
2002 - 2012 (L/1.000 m<sup>2</sup>)

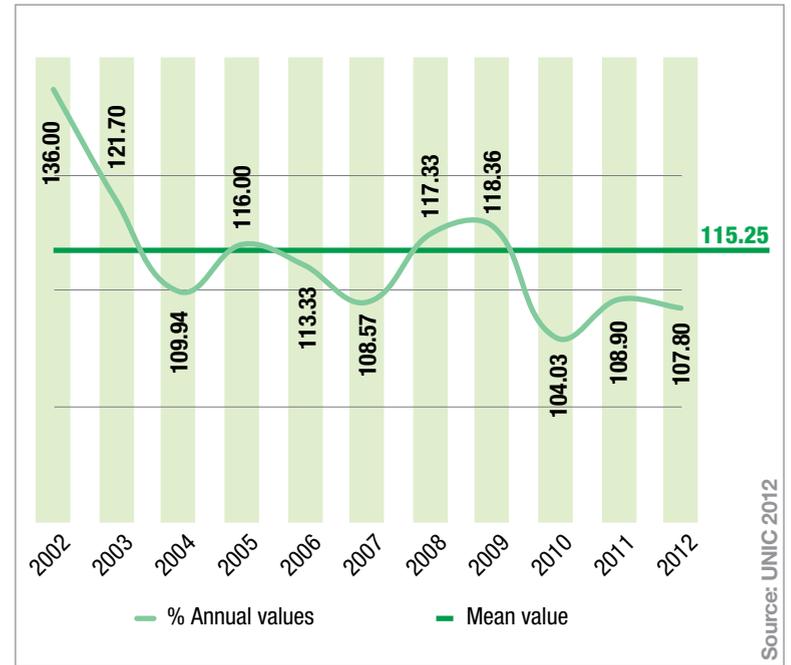


Figure 8 - Reduction of water consumption:  
characteristic activities 2007 - 2012 (%)

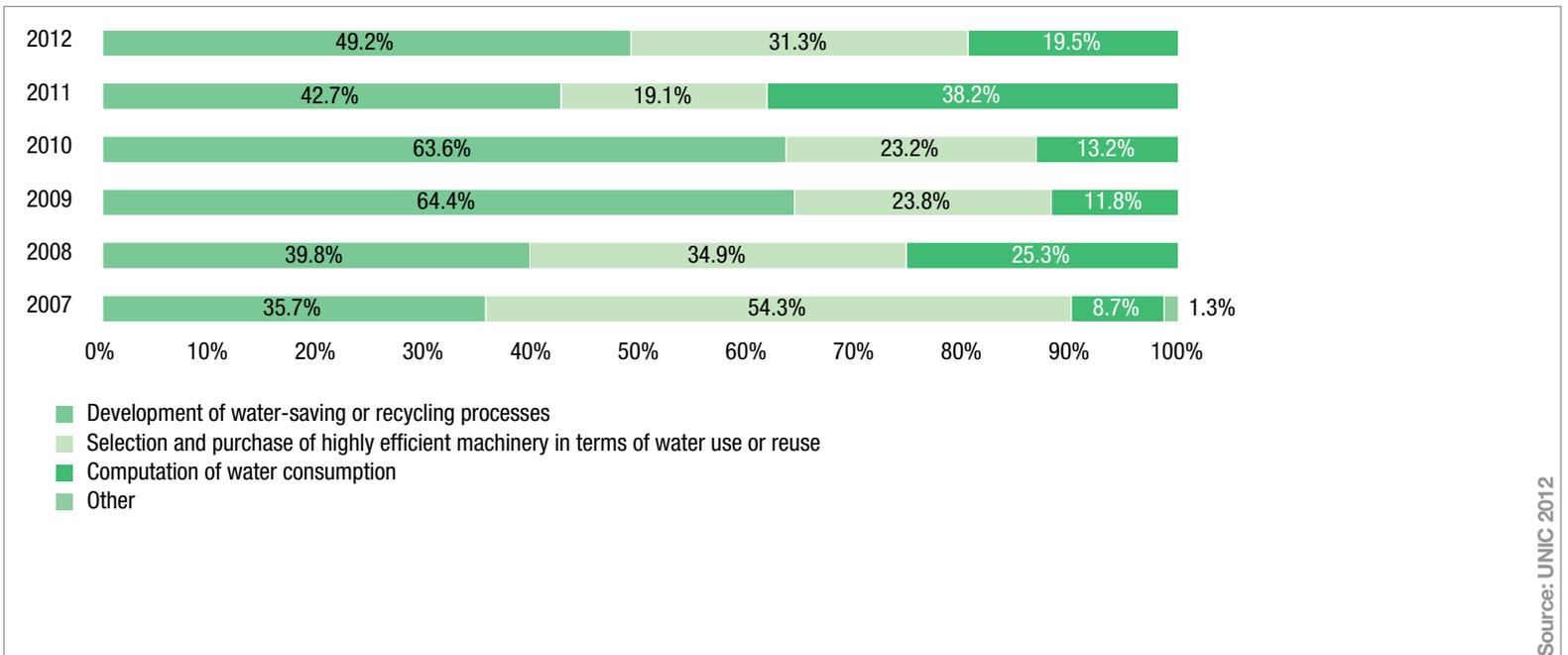
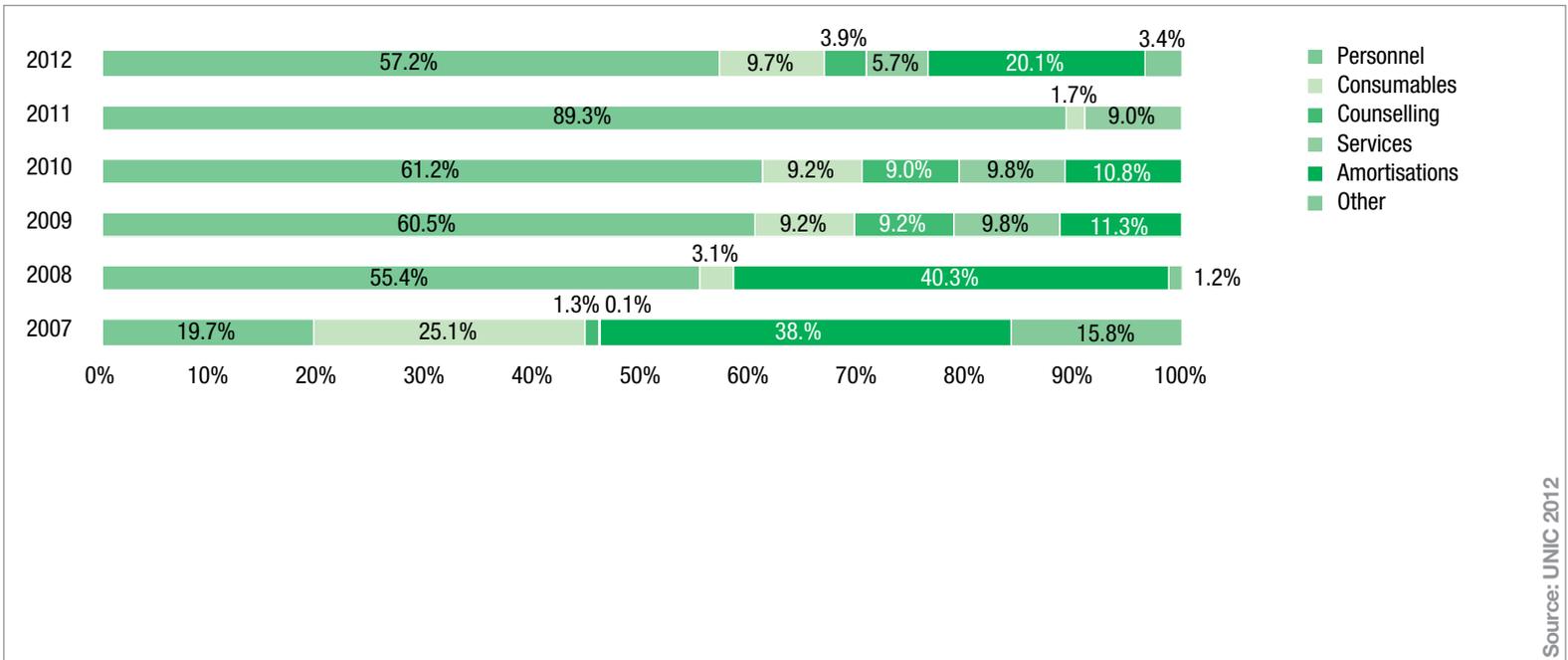




Figure 9 - Reduction of water consumption:  
cost breakdown 2007 - 2012 (%)



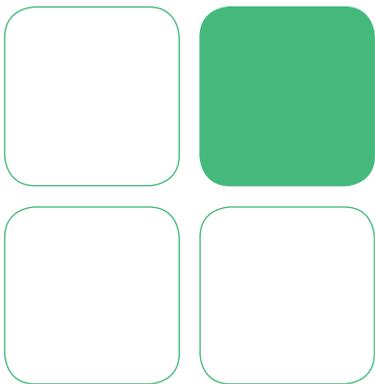


Figure 10 - Water transferred to purification plants  
2004 - 2012 (%)

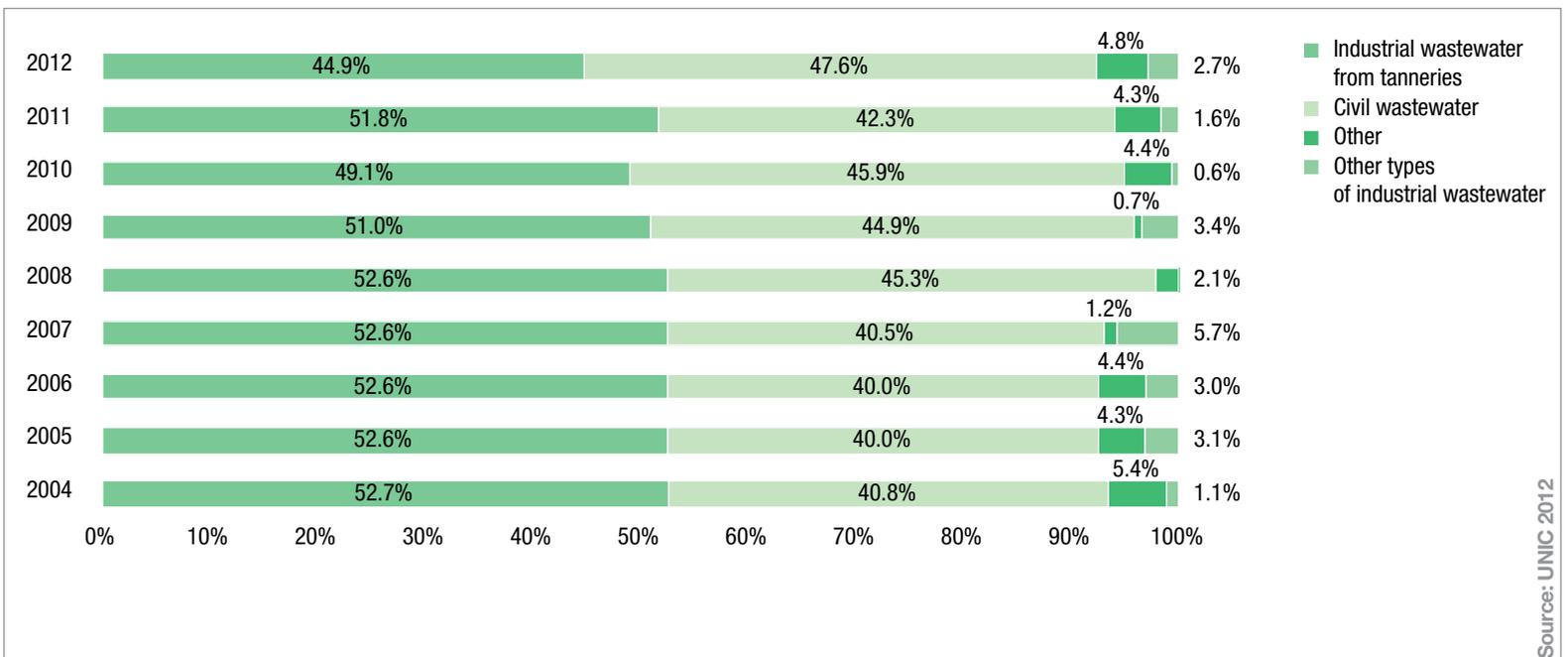
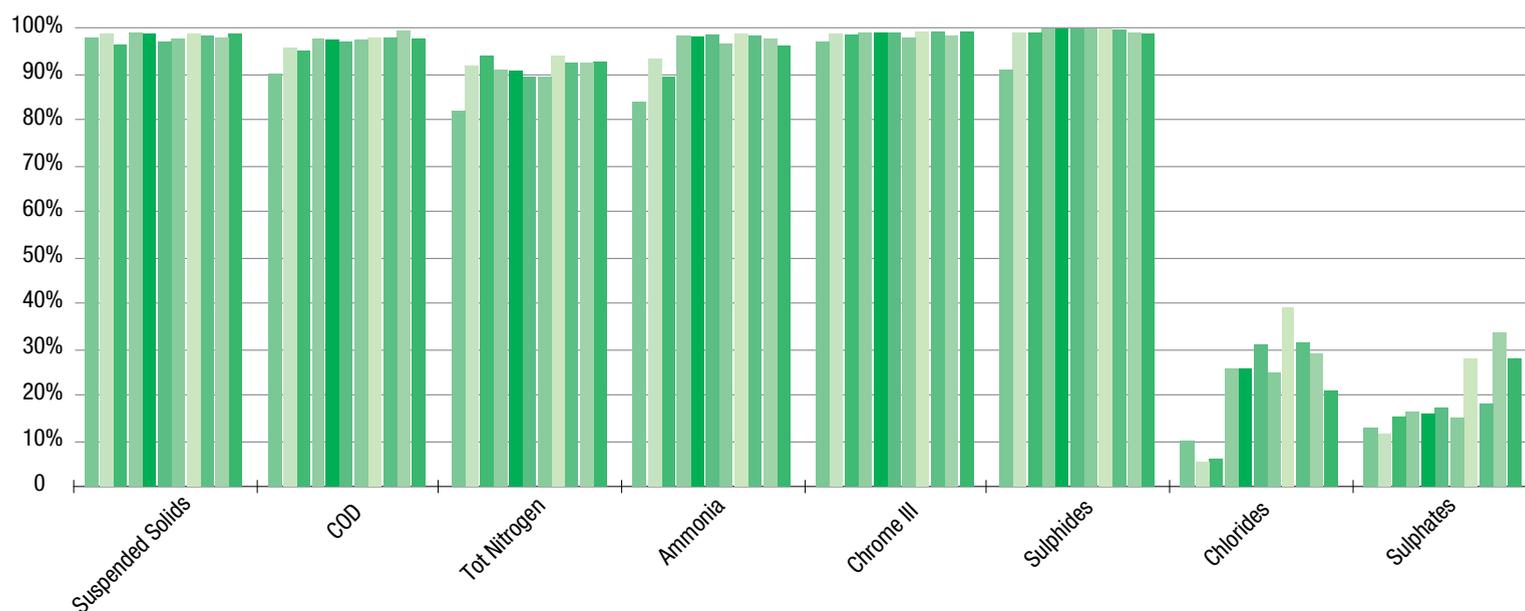
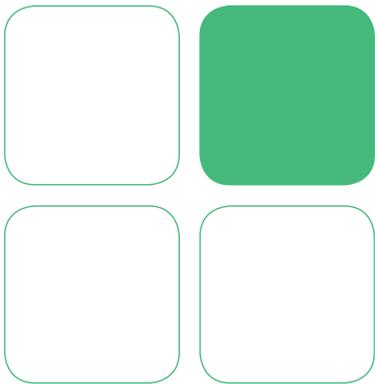


Figure 11 - Reduction of pollutants in wastewater  
2002 - 2012 (%)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Suspended Solids	98.0%	97.8%	96.5%	99.1%	98.7%	97.0%	97.8%	98.8%	98.4%	97.9%	98.8%
COD	90.0%	95.8%	95.1%	97.6%	97.5%	97.0%	97.4%	98.0%	98.0%	99.4%	97.8%
Tot Nitrogen	82.0%	91.9%	94.0%	90.9%	90.7%	89.5%	89.5%	94.0%	92.4%	92.5%	92.7%
Ammonia	84.0%	93.3%	89.4%	98.3%	98.1%	98.5%	96.7%	98.7%	98.4%	97.8%	96.1%
Chrome III	97.0%	98.8%	98.5%	99.1%	99.1%	99.0%	98.6%	99.3%	99.2%	98.4%	99.1%
Sulphides	91.0%	99.0%	99.0%	99.9%	99.9%	99.9%	99.9%	99.8%	99.6%	99.1%	99.2%
Chlorides	10.0%	5.4%	6.2%	25.7%	25.9%	31.0%	24.9%	39.1%	31.5%	29.0%	21%
Sulphates	13.0%	11.7%	15.3%	16.5%	16.0%	17.2%	15.2%	27.9%	18.2%	33.6%	27.9%

Source: UNIC 2012



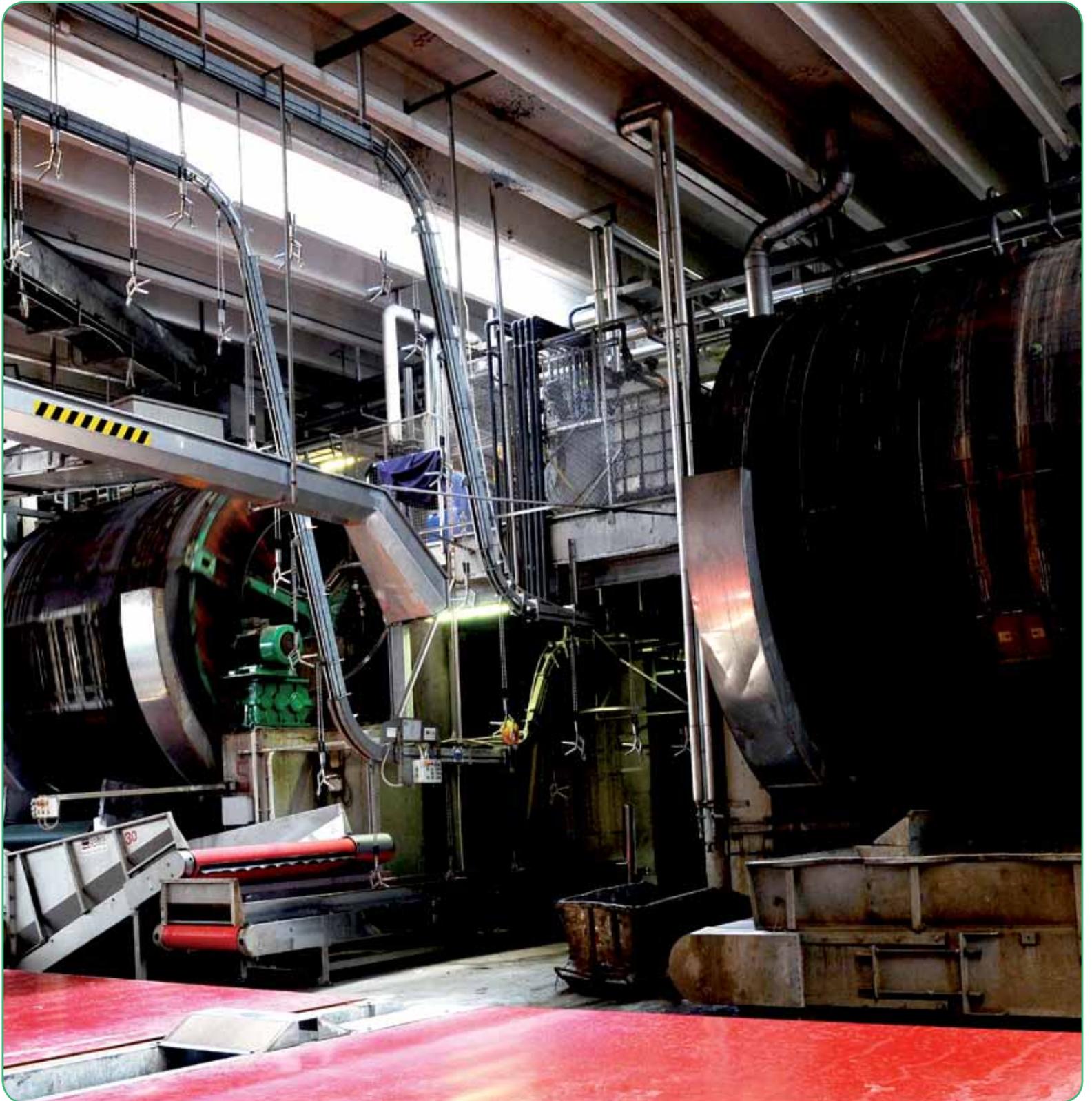
## Waste water treatment costs

Since 2007, greater attention has been paid to the costs of water purification, which has included identifying the main activities that generate such costs and defining the cost structures within the tanneries and the treatment facilities. For tanneries, water treatment management accounts for nearly all of the costs connected with wastewater. The external treatment facilities and management of the tanneries' water treatment equipment accounts for most significant part of these specific costs (Fig. 12).

In 2012, the ratio of water management costs to total revenues was 3%, and was just over 2% on average for the period 2002-2012. This indicator has risen constantly in recent years, even as water consumption has continued to decline. Indeed, the figure for 2012 is more than twice that of 2002.

Looking more closely at the purification costs, we see (in Fig. 15) that the main expenses were as follows: personnel costs; sludge and other purification-related waste disposal and transport; energy used by plant and machinery; depreciation and amortization (as a result of the ongoing investments being made); maintenance and the chemicals used in the purification process.

Figure 16 shows a breakdown of the waste generated by these facilities.



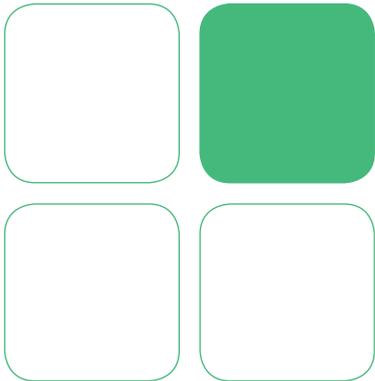
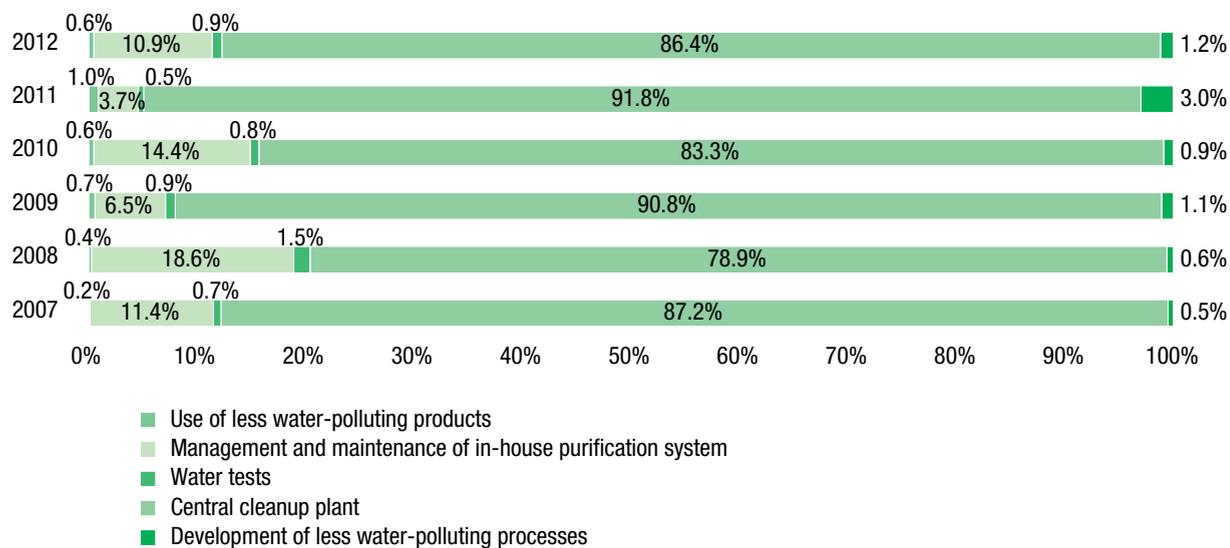


Table 3 - Water: highlights

INDICATORE	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Water consumption per product unit (l/m <sup>2</sup> )	136.0	121.7	109.9	121.8	113.3	108.6	117.3	118.4	104.0	108.9	107.8
Cost of water management/turnover (%)	1.43%	1.58%	1.63%	1.71%	1.58%	1.54%	2.05%	1.97%	2.57%	2.96%	.98%

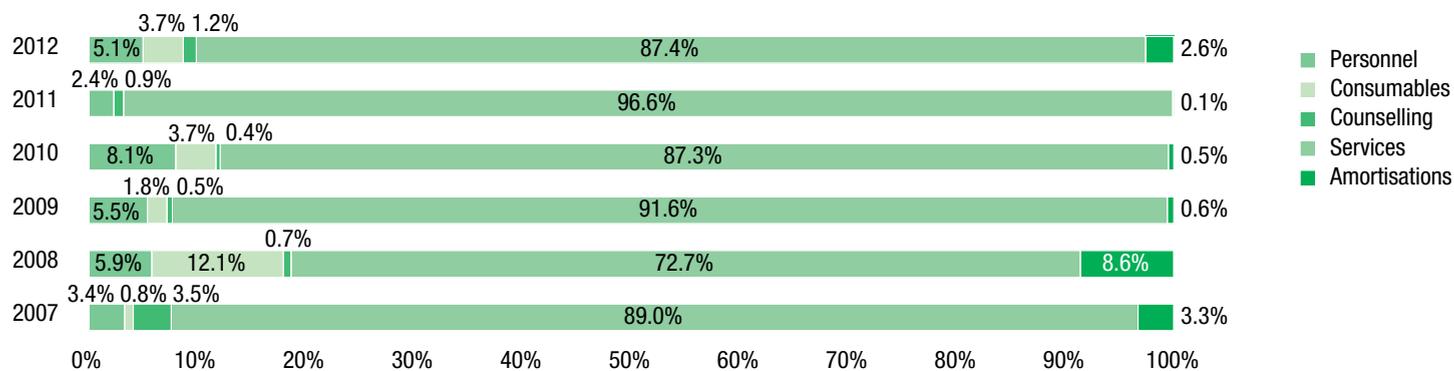
Source: UNIC 2012

Figure 12 - Improvement of wastewater disposal:  
characteristic activities 2007 - 2012 (%)



Source: UNIC 2012

Figure 13 - Improvement of wastewater disposal:  
cost breakdown 2007 - 2012 (%)



Source: UNIC 2012

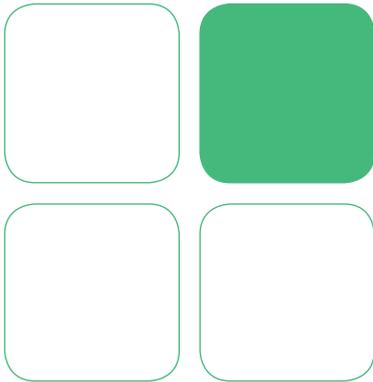


Figure 14 - Cost of wastewater management/turnover 2002 - 2012 (%)

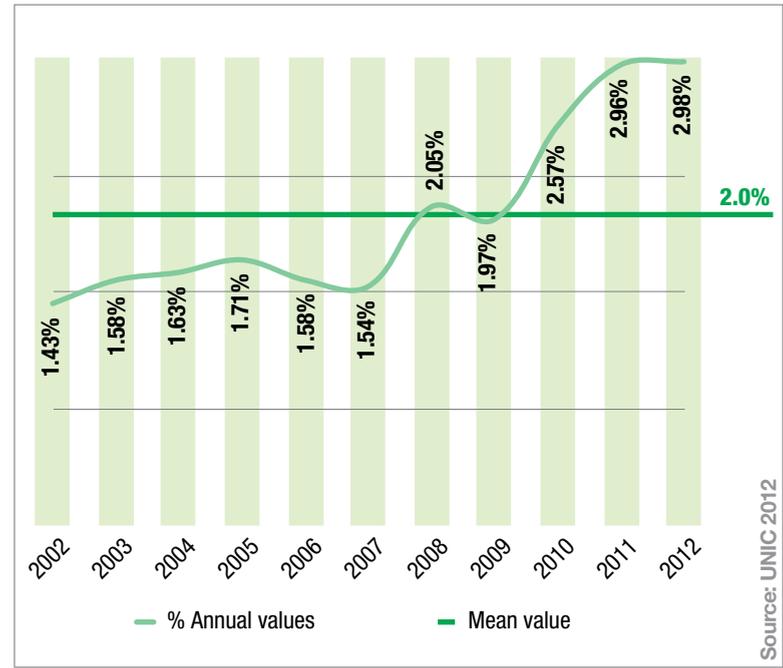


Figure 15 - Breakdown of treatment costs in district plants 2004 - 2012 (%)

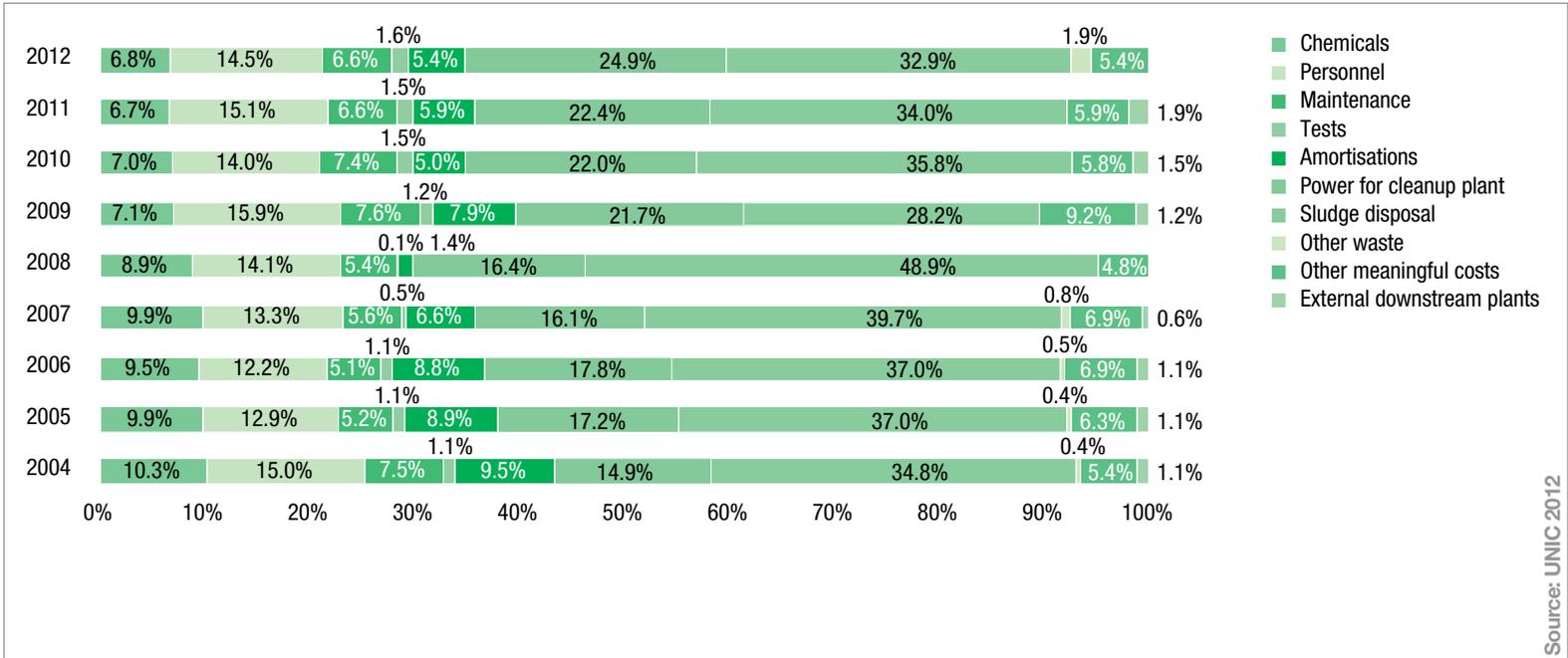
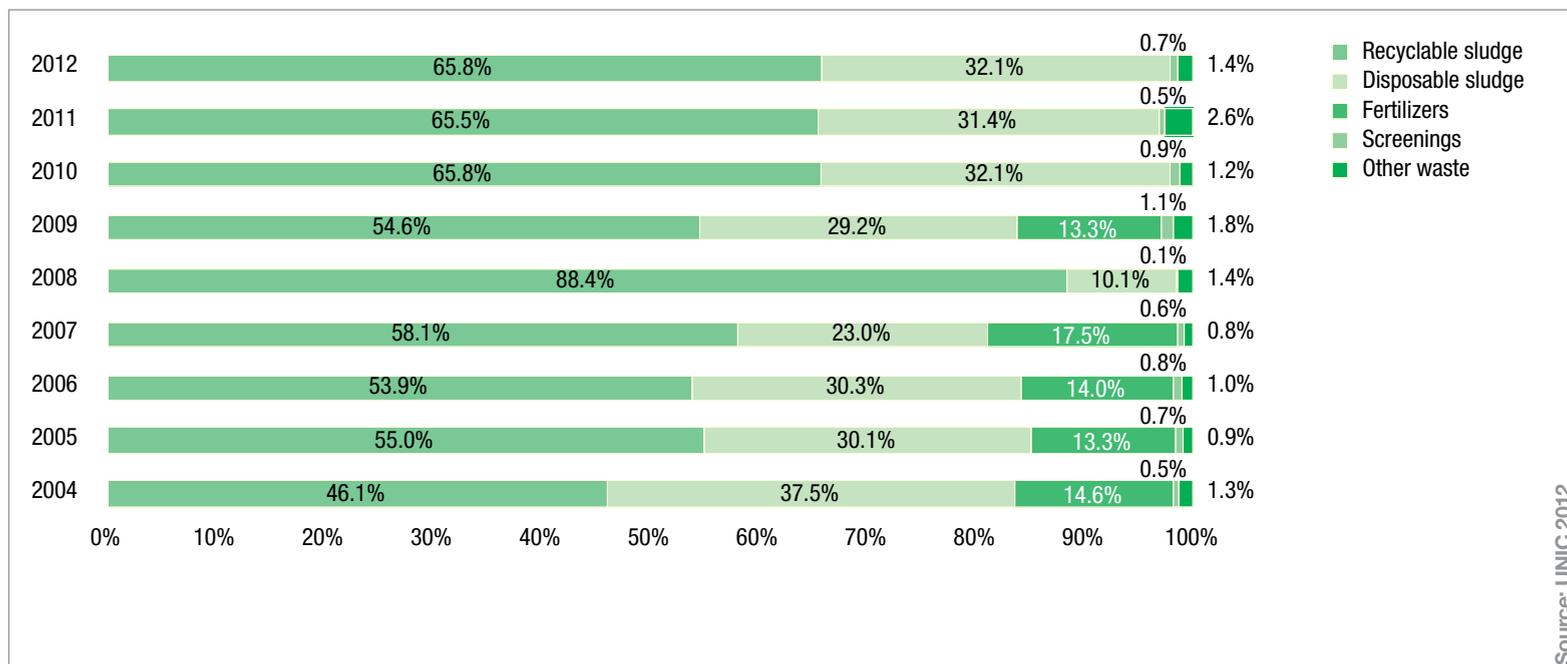


Figure 16 - Composition of waste generated by district plants 2004 - 2012 (%)



Source: UNIC 2012

## THE FOLLOWING CLEANUP PLANTS CONTRIBUTED DATA FOR THE REPORT:

ACQUE DEL CHIAMPO SPA  
Arzignano (VI)  
[www.acquedelchiampospa.it](http://www.acquedelchiampospa.it)

CONSORZIO AQUARNO SPA  
S. Croce sull'arno (PI)  
[www.depuratoreaquarno.it](http://www.depuratoreaquarno.it)

CONSORZIO CONCIATORI  
DI FUCECCHIO  
Ponte a Cappiano (FI)  
[www.ofnelson.it/ccf/ita.htm](http://www.ofnelson.it/ccf/ita.htm)

MEDIO CHIAMPO SPA  
Montebello Vicentino (VI)  
[www.mediochiampo.it](http://www.mediochiampo.it)

Impianto di depurazione di Solofra  
COGEI Srl – Solofra (AV)

# Waste production and management

Less than 30% of incoming skins by weight leaves the tannery in the form of a finished product. The remaining organic material coming from the skins is discarded during the tanning process, thereby generating byproducts and waste of various nature depending on the phase of production concerned and which can be dealt with in a variety of ways.

The European Wastes Code classifies tannery waste as follows:

- 04 01 wastes from the leather and fur 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 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

Fleshings, which result from the mechanical removal of bits of subcutaneous flesh from pelts, hair and other solid residue resulting from prior stages are not, under current legislation, classified as waste, but rather as animal byproducts.

Fleshings and shavings, clippings and similar waste makes up the most significant portion of tannery wastes (at 28.2% and 18.6%, respectively). Water treatment sludge accounts for roughly 26% of all waste and tanning liquor 17.4%. Tanning liquor containing chromium (III) is sent by tank truck (and therefore falls within the scope of Italian waste ma-



nagement legislation) to centralized waste recovery facilities. The recovered chromium is mixed with other “freshly” acquired basic chromium sulfate and then reused in production.

Roughly 98% of all tannery waste is subject to separate waste collection measures, which makes it possible to preserve the technical characteristics of the various materials so that they can be used in the recovery/recycling processes carried out by specialist firms. Waste that is not separated in this way is mainly classified as “mixed packaging” under the European Wastes Code of 15 January 2006. The internal organization of the tanneries and the level of specialization of the waste management facilities make it possible to achieve excellent levels of performance in waste management. In 2012, 73% of all waste generated was subsequently reused/recycled (Fig. 19).

In 2012, 1.82 kg of waste was generated for every square meter of leather produced.

## Waste: management costs

Waste management costs as a ratio to total revenues came to 0.78% in 2012, second only to the figure posted in 2010.

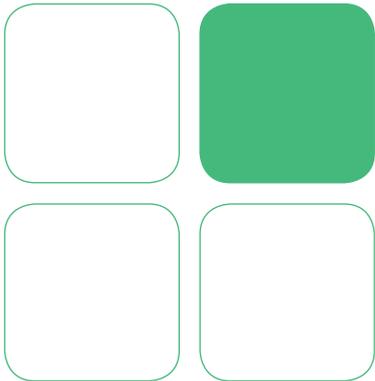
The typical waste management activities and their related cost structures are shown in Figures 23 and 24.

## Animal Byproduct

These standards descend from a European regulation (1774/2002/EC), repealed by Regulations n. 1069/2009 and n. 142/2011, which governs:

- animal byproducts not intended for human consumption
- products intended for purposes other than human consumption, including raw materials used to produce animal products.

The new definition of Animal Byproduct applies to “entire bodies or parts of animals, products of animal origin or other products obtained from animals, which are not intended for human consumption”. Derived products are defined as “products obtained from one or more treatments, transformations or steps of processing of animal by-products”. The products of animal origin to which the regulations make reference are foodstuffs of animal origin. Hides and skins can be identified as “parts of animals”. Hides and skins (by-products under category 3) can be processed for manufacturing of: feed for farmed animals, feed for fur animals, feed for pets, organic fertilisers or soil improvers, raw petfood, compost or biogas, cosmetic products, medical products for humans and animals. Manufacturers shall fulfill the following obligations: accompany their shipments of animal byproducts with commercial documents or health certificates, be acknowledged by the competent authorities, perform own checks and written procedures. All authorizations previously issued by the competent authorities are valid to all effects.



**Figure 17 - Composition of typical tanning waste  
2002 - 2012 (%)**

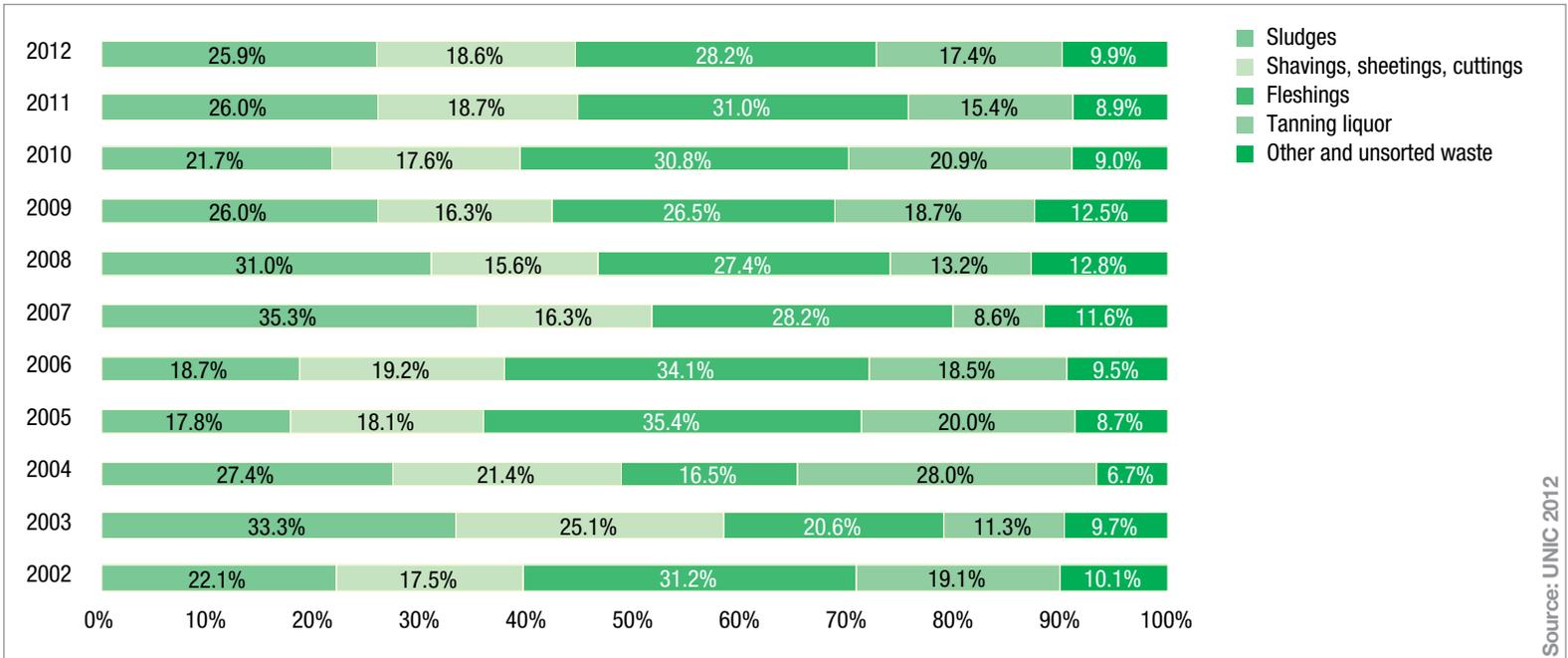


Figure 18 - Separate collection: comparison  
2002 - 2012 (%)

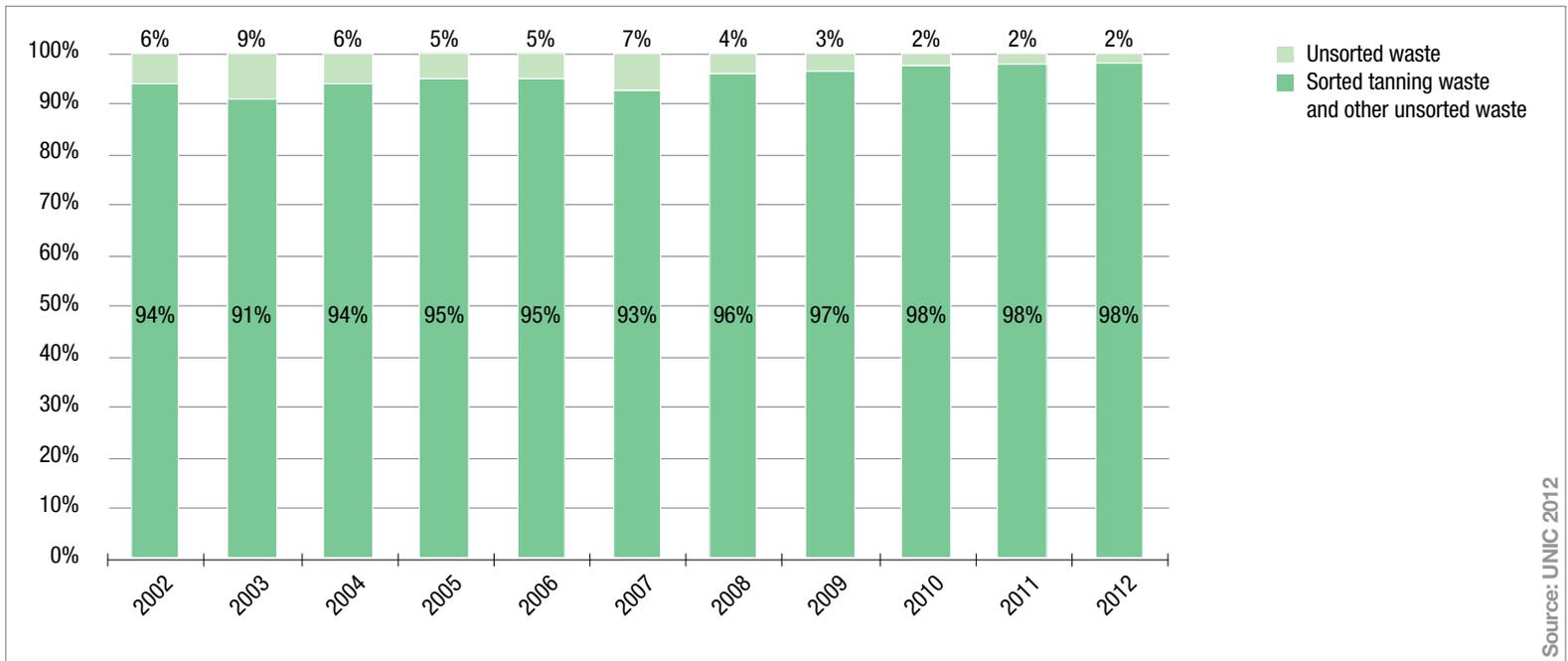
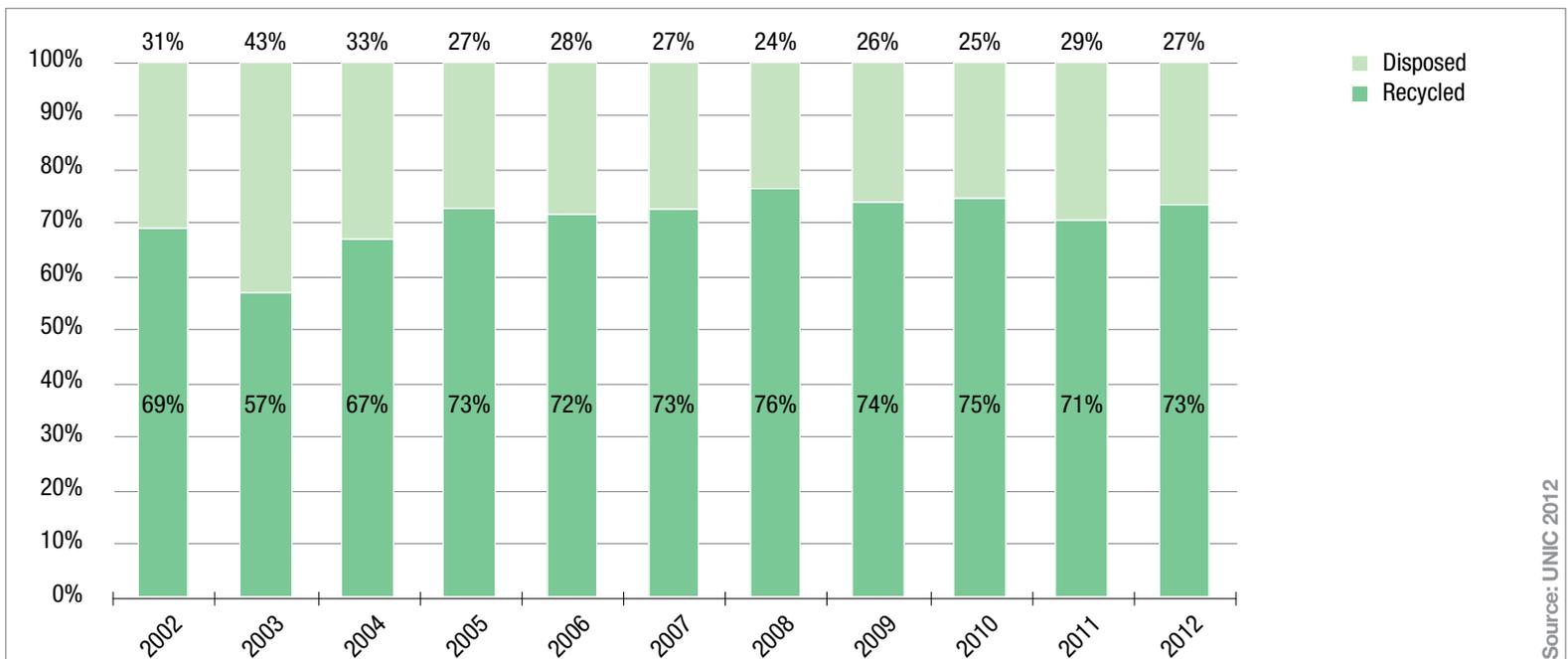


Figure 19 - End destination of waste  
2002 - 2012 (%)



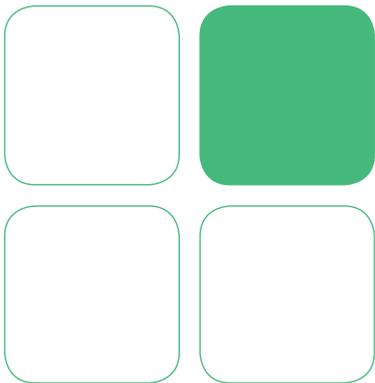


Tabella 4 - Waste: highlights

INDICATOR	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Waste/product unit (kg/m <sup>2</sup> )	2.16	1.79	1.93	2.16	2.08	1.66	1.83	2.10	1.84	1.85	1.82
Separate collection (%)	94%	91%	94%	95%	95%	93%	96%	97%	98%	98%	98%
Waste transferred to recycling plants (%)	69%	57%	67%	73%	72%	72%	76%	74%	75%	71%	73%
Costs of waste/turnover (%)	0.39%	0.37%	0.47%	0.58%	0.55%	0.56%	0.58%	0.84%	0.99%	0.69%	0.78%

Source: UNIC 2012



Figure 20 - Waste production per product unit  
2002 - 2012 (Kg/m<sup>2</sup>)

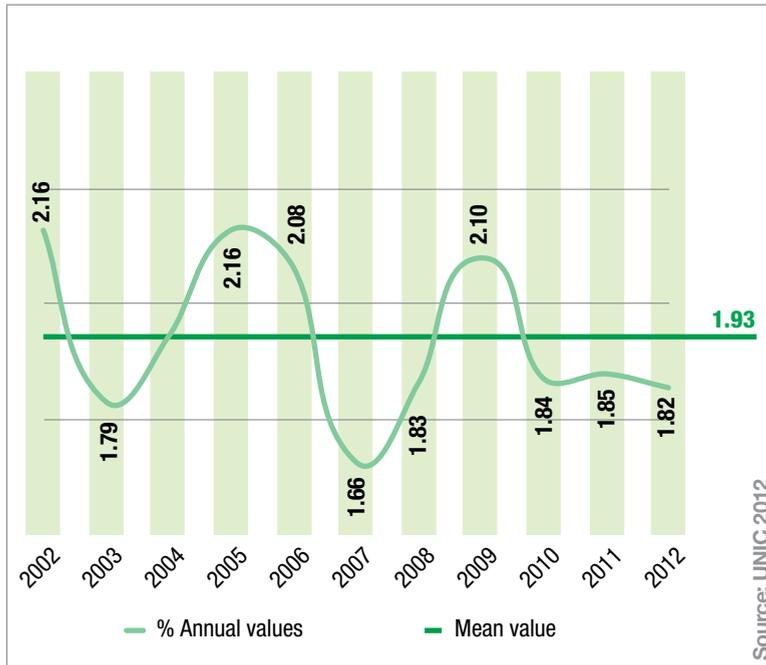


Figure 21 - Waste transferred to recycling plants  
2002 - 2012 (%)

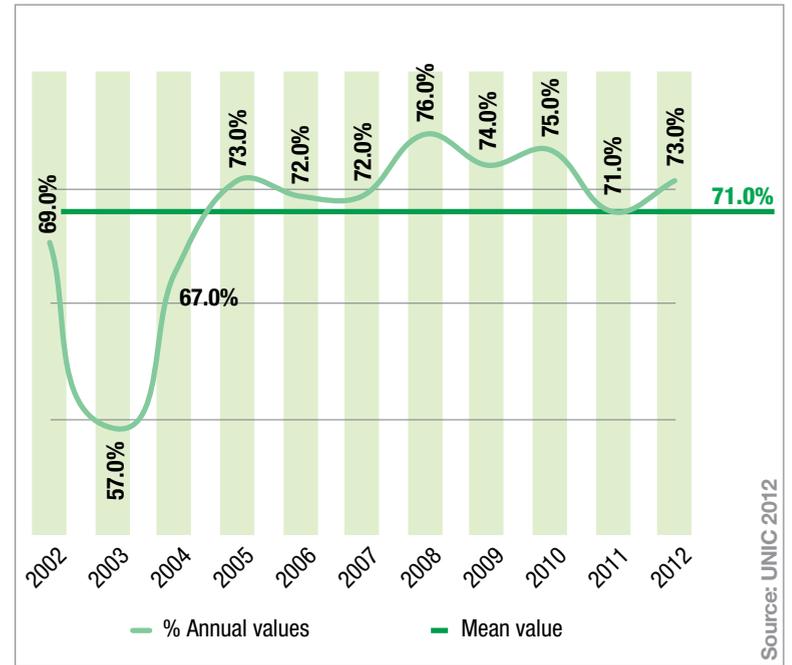


Figure 22 - Waste management costs/Turnover  
2002 - 2012 (%)

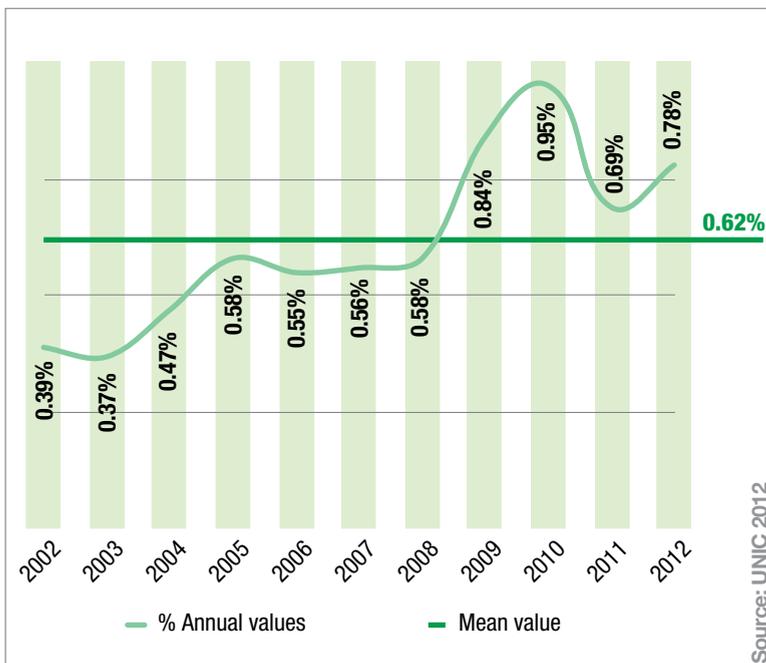




Figure 23 - Waste management:  
characteristic activities 2007 - 2012 (%)

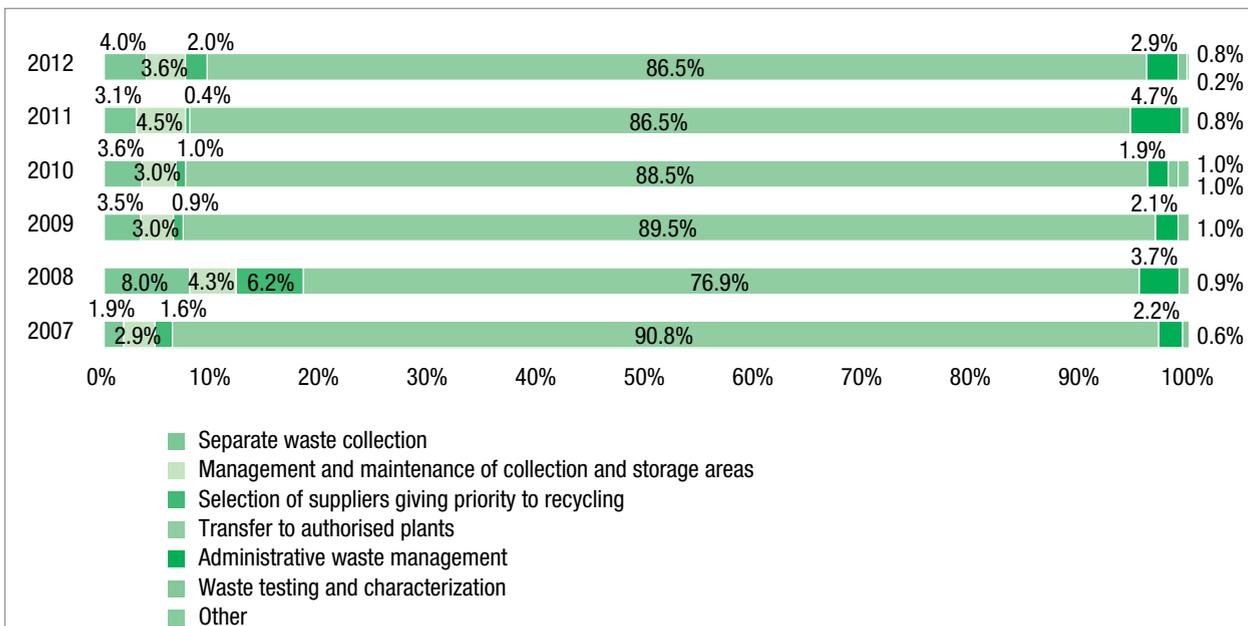
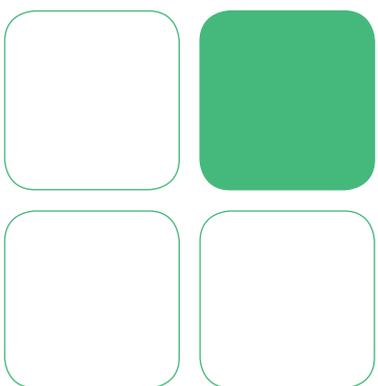




Figure 24 - Waste management: cost breakdown 2007 - 2012 (%)





**Atmospheric** emission

In the tanning industry, the primary parameters that affect air quality are: volatile organic compounds (VOCs), hydrogen sulfide and other particulates. For heat generation, thermal power plants are also used that emit nitrogen oxides (NO<sub>x</sub>) and sulfur oxides (SO<sub>x</sub>), in addition, of course, to carbon dioxide (CO<sub>2</sub>), during combustion.

Emissions per unit produced have remained virtually constant throughout the period studied with pollutants per square meter produced hovering at around 0.78g/m<sup>2</sup> for particulates, 2.02g/m<sup>2</sup> for NO<sub>x</sub>, 1.65g/m<sup>2</sup> for SO<sub>x</sub> and 0.05g/m<sup>2</sup> for hydrogen sulfide (Tab. 5). The calculation method used is as follows:

$$\text{POLLUTANT PER UNIT PRODUCED} \\ (\text{g/m}^2) = \text{AL (Kg/year)/P} * 1,000$$

where:

AL = annual load

P = production in m<sup>2</sup>

$$\text{Pollutant levels were calculated as follows:} \\ \text{AL [Kg/y]} = \text{C [mg/Nm}^3\text{]} * \text{L[Nm}^3\text{/h]} * \text{h [hours worked/y]/106}$$

where:

C = average flue concentration

L = total load of pollutant-emitting plant

h = total hours worked in one year

To supplement the data from the survey, we have also provided figures on the consumption of solvents for the period 1996-2011 compared with the production numbers for the Arzignano tannery district as provided by Agenzia Giada and the Province of Vicenza (Fig. 26).

## Atmospheric emissions: cost

Reductions in emissions are achieved in the following ways:

- developing processes to reduce air pollution
- using products that pollute less
- selecting and purchasing more efficient machinery in terms of atmospheric emissions
- operating and maintaining scrubbers
- analyzing emissions

A breakdown of the costs of such activities is shown in Figure 28.



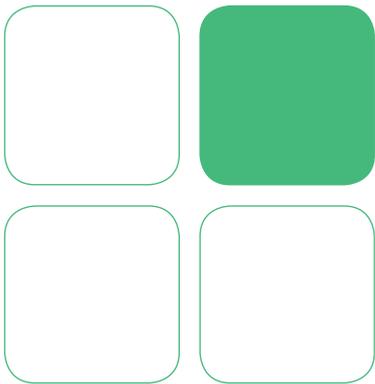
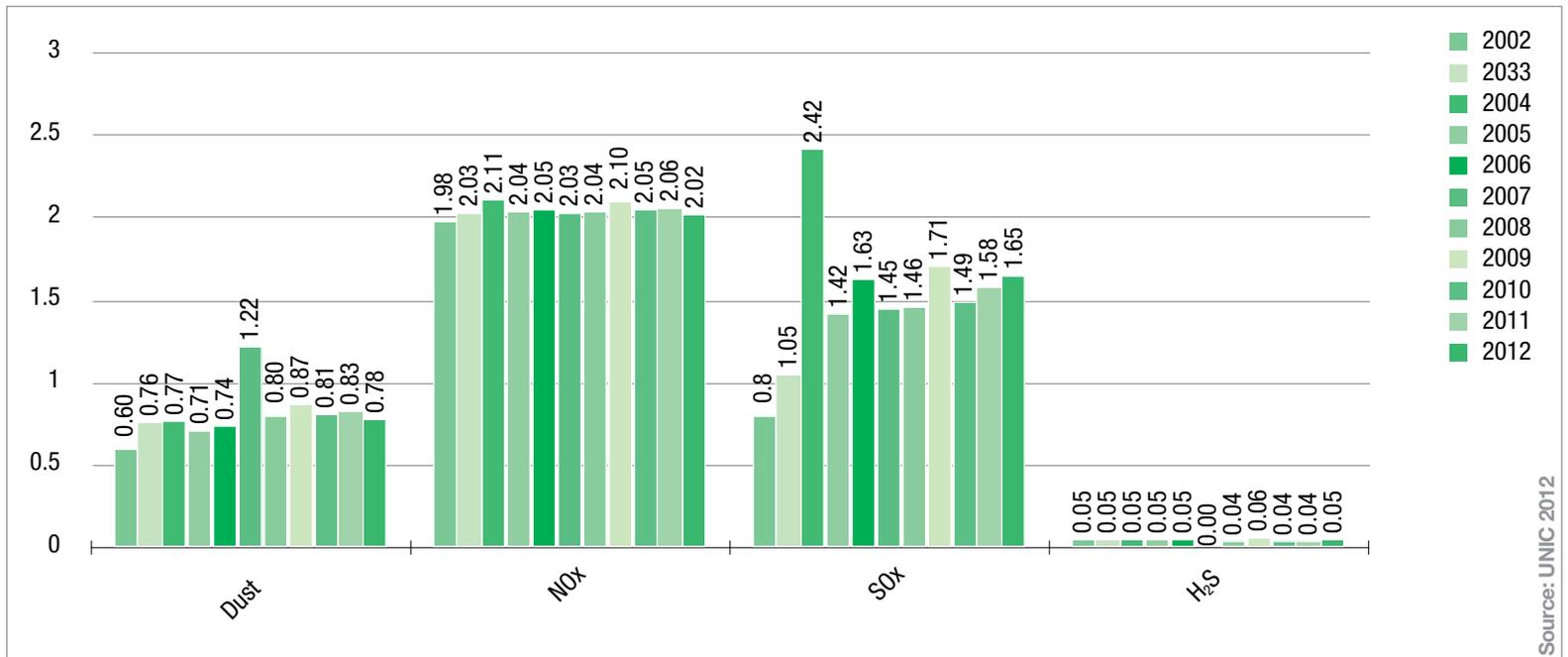


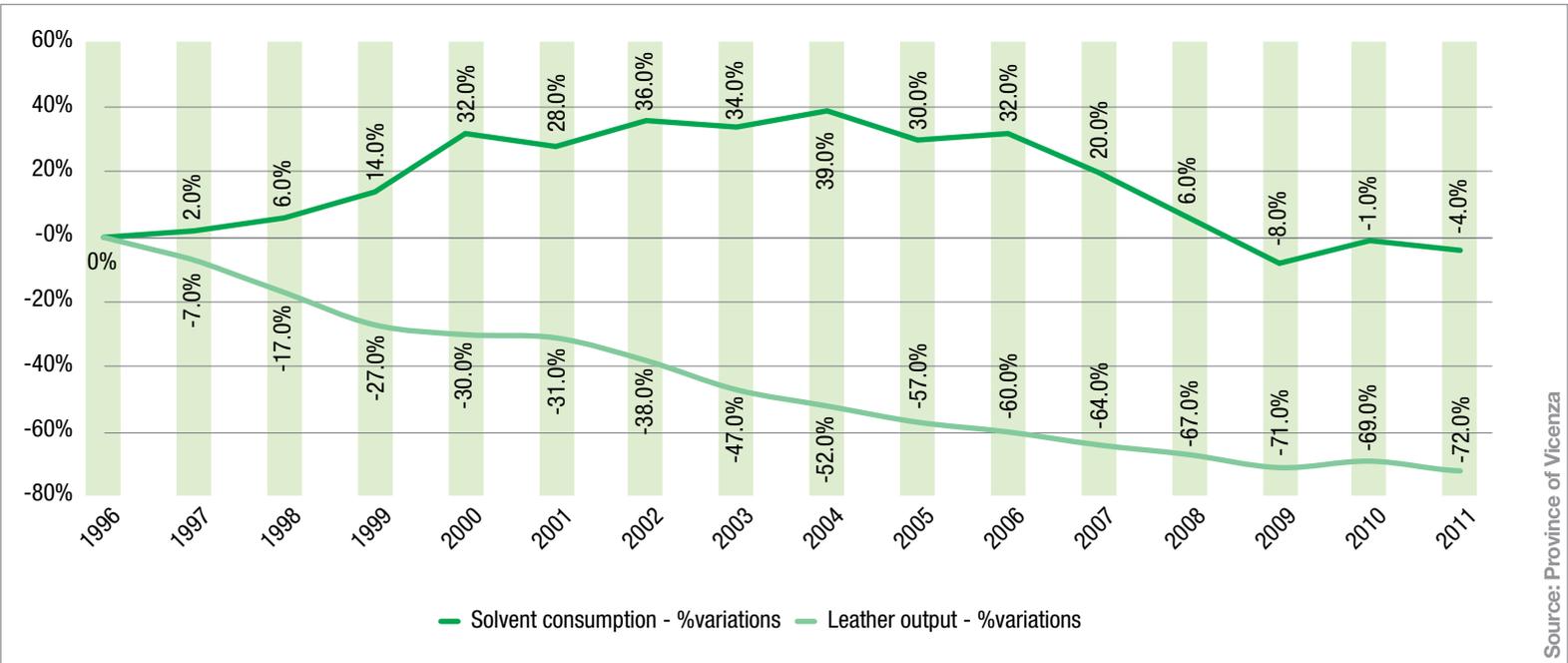
Figure 25 - Air pollutants per product unit  
2002 - 2012 (%)



Source: UNIC 2012



Figure 26 - Ratio of output to solvent consumption 1996 - 2011 in Arzignano district



Source: Province of Vicenza

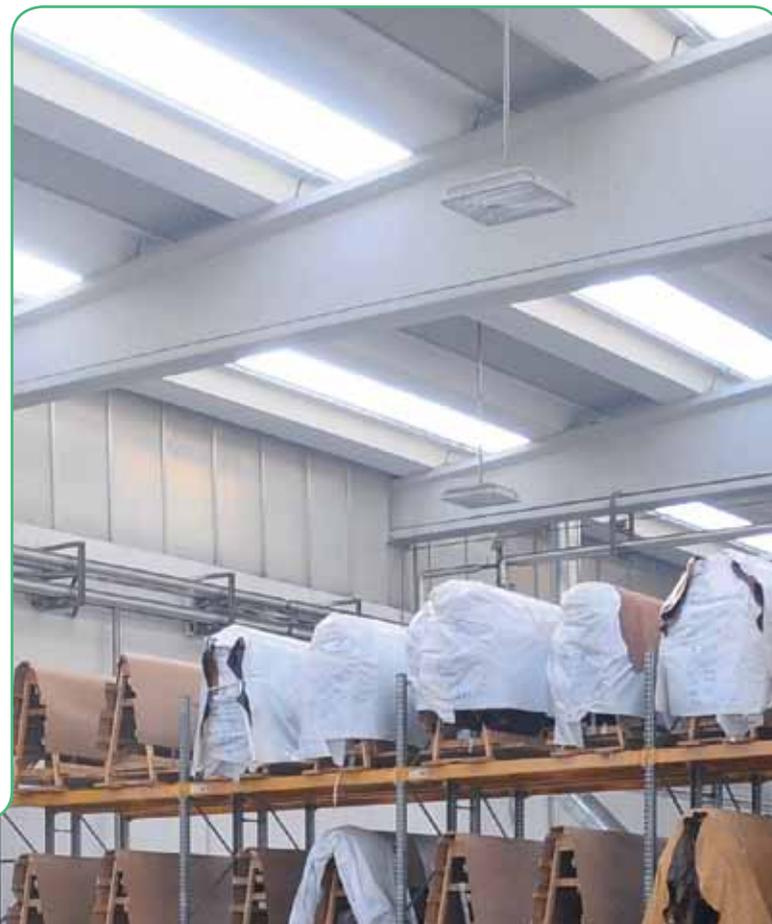


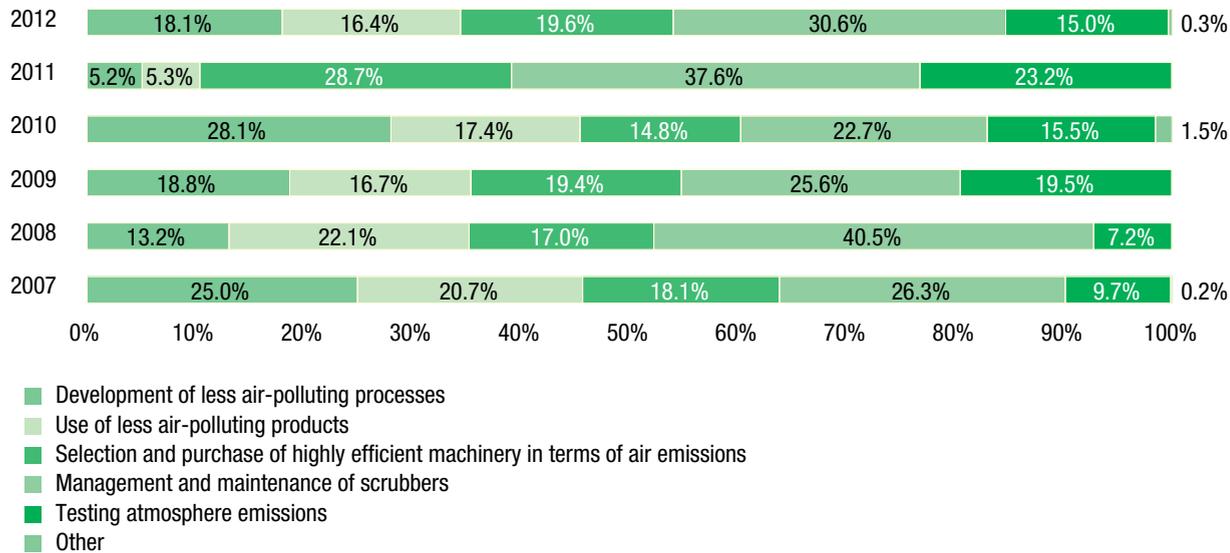
Table 5 - Atmospheric emissions: highlights

INDICATORE	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Dust (g/m <sup>2</sup> )	0.60	0.76	0.77	0.71	0.74	1.22	0.80	0.87	0.81	0.83	0.78
Nox (g/m <sup>2</sup> )	1.98	2.03	2.11	2.04	2.05	2.03	2.04	2.10	2.05	2.06	2.02
Sox (g/m <sup>2</sup> )	0.80	1.05	2.42	1.42	1.63	1.45	1.46	1.71	1.49	1.58	1.65
H2S (g/m <sup>2</sup> )	0.05	0.05	0.05	0.05	0.05	0.004	0.04	0.06	0.04	0.04	0.05
Costi emissioni/fatturato (%)	0.1%	0.10%	0.10%	0.10%	0.12%	0.11%	0.11%	0.08%	0.12%	0.10%	0.12%

Source: UNIC 2012

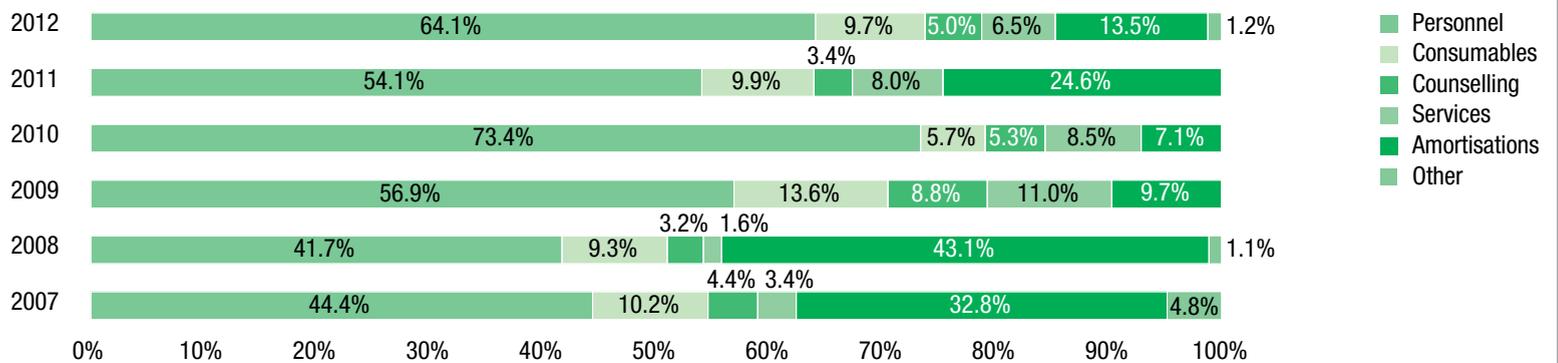


Figure 27 - Reduction of atmospheric emissions:  
characteristic activities 2007 - 2012 (%)

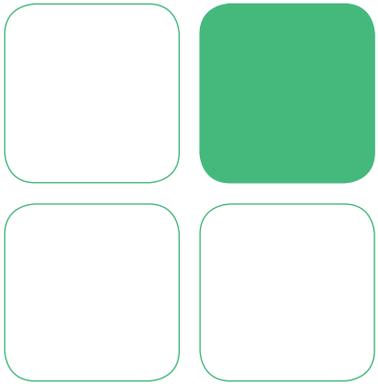


Source: UNIC 2012

Figure 28 - Reduction of atmospheric emissions:  
cost breakdown 2007 - 2012 (%)



Source: UNIC 2012



Environmental  
**management systems**

In order to implement an environmental management system, policies and objectives must be developed and implemented which take account of the laws and standards that the organization follows.

An environmental management system is the part of the tannery's organization that seeks mainly to prevent pollution.

An environmental management system applies to the environmental aspects that the organization feels are significant, that can be kept under control and that can otherwise be influenced (e.g. environmental aspects related to the activities of suppliers).

In Italy, a great many tanneries have obtained ISO 14001 certification, while others operate in compliance with the EU Eco-Management and Audit Scheme (EMAS). It should also be noted that efforts typical of an environmental management system are also seen in non-certified tanneries as an integral part of their overall system of operations.

The main activities of environmental management as defined above include:

- Identifying and assessing the significant environmental factors
- Training employees on environmental management practice
- Implementing and certifying environmental management systems
- Obtaining environmental certification for the product

In addition to directly managing the tannery's various environmental issues, employees are also involved in activities aimed at preventing pollution and improving the company's environmental performance, but from a more managerial point of view.

The typical activities involved in the planning and control of an environmental management system are shown in Figure 29. As shown in Figure 30, personnel, consulting and other services account for the most significant portion of costs associated with this activity.



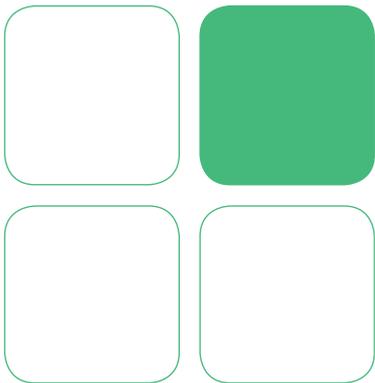


Figure 29 - Environmental management system:  
characteristic activities 2007 - 2012 (%)

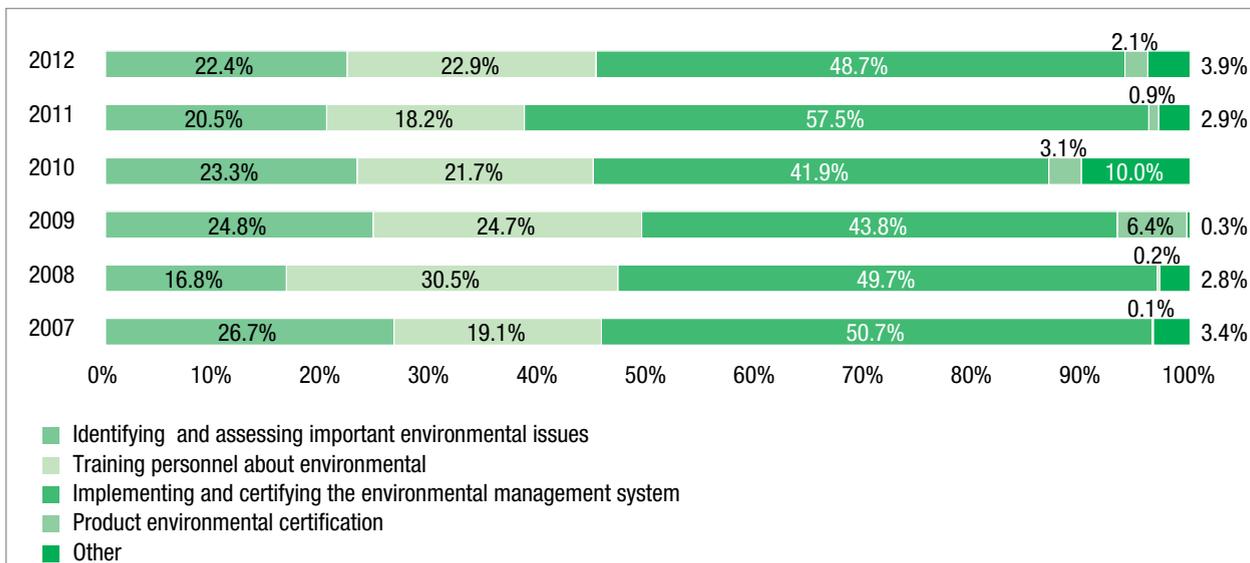
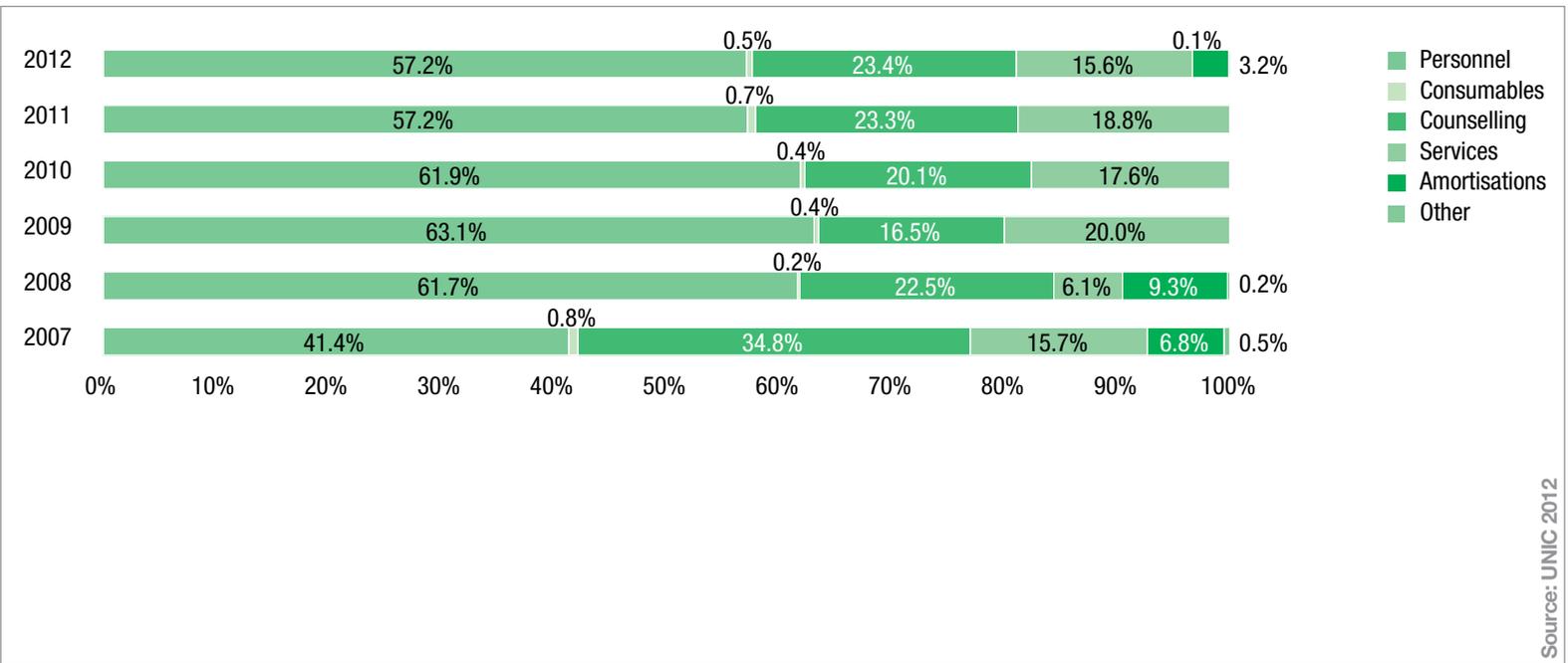
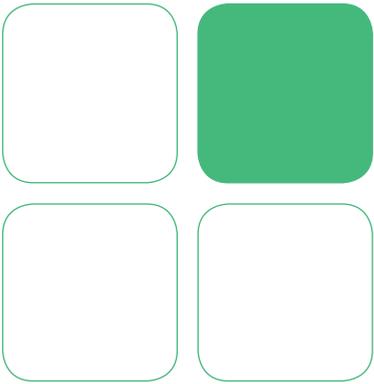




Figure 30 - Environmental management system:  
cost breakdown 2007 - 2012 (%)





## Concluding remarks

the Italian virtuousness  
lacks international reciprocity

Environmental spending rose again in 2012 to 4.27% of total revenues and 4.44% of total operating costs, reaching the highest levels posted in the 11 years in which this data has been gathered. This is growth of around 124% since the year in which the data was first available, thereby confirming the key role that environmental protection can play in the competitiveness of a business if not properly developed.

In such a competitive international marketplace, the best practices of Italian tanneries, which incur significant costs in order to ensure the eco-compatibility of their production processes, are hindered by a lack of reciprocity in the application of environmental legislation in competitor nations. Allowing international competitors to put products on the market that come out of processes that create more pollution—in some cases without even treating the tanneries' wastewater—means allowing unfair competition and ensuring greater market penetration for those who are able to keep costs lower and offer more competitive prices precisely because of this improper conduct.

The environmental performance of Italy's tanneries has been improved over the years through constant investment and other organizational, technological and financial efforts aimed at ensuring the compatibility of both processes and product with the needs of the communities in which they operate and their compliance with strict EU and Italian laws and regulations.

Over the years, Italian tanneries have achieved remarkable levels of environmental performance thanks to active cooperation of all players throughout the industry. Today, tanneries consume less water and energy and have replaced hazardous chemicals. Wastewater is treated efficiently, and most other waste is recovered.

Water and waste management are now the most significant component of a tannery's costs (Fig. 34), along with "other environmental costs" including spending related to environmental management, which has been the third greatest cost since 2007.

Figure 34 shows the trend in revenues and ratio of environmental costs indexed to the year in which such data was first available (2002). The two figures nearly mirrored each other until 2009, with environmental costs increasing as total revenues declined. Since 2010, the year in which the tannery industry began to show signs of a recovery, the ratio of environmental costs to total revenues continued to increase and to eat into the tanneries' margins, despite stability and, in some cases, improvement in physical performance.





Figure 31 - Total environmental costs 2007 - 2012 (%)

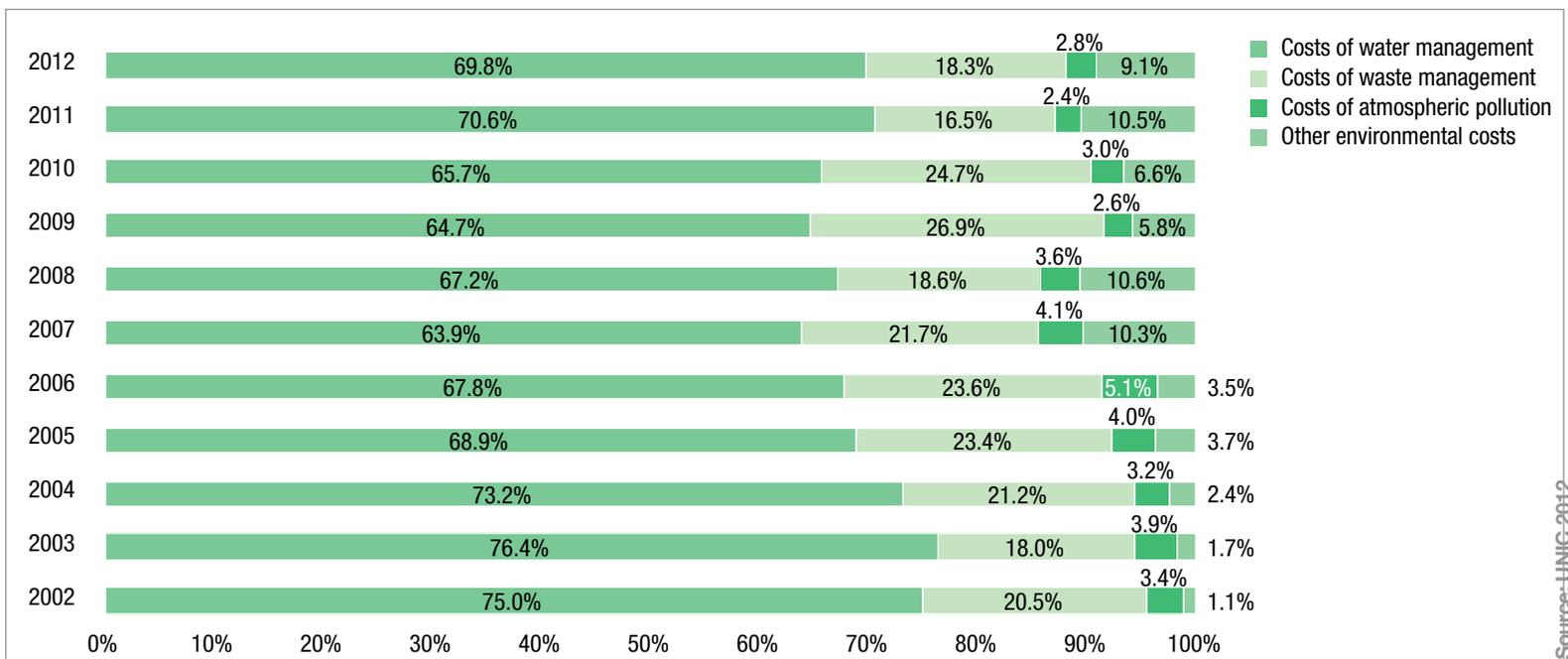




Figure 32 - Incidence of environmental costs on turnover 2002 - 2012 (%)

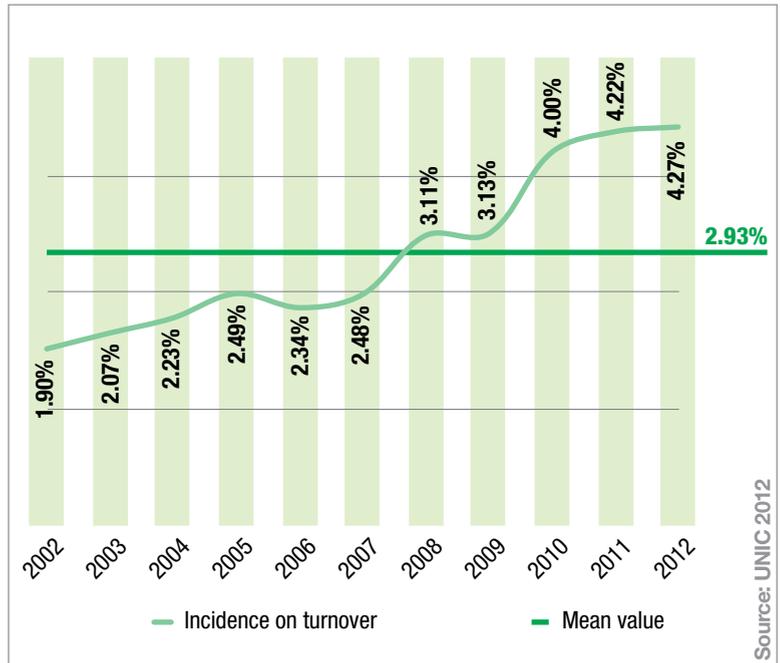


Figure 33 - Incidence of environmental costs on total operating expenses 2002 - 2012 (%)



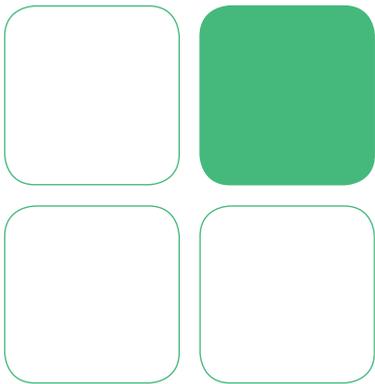
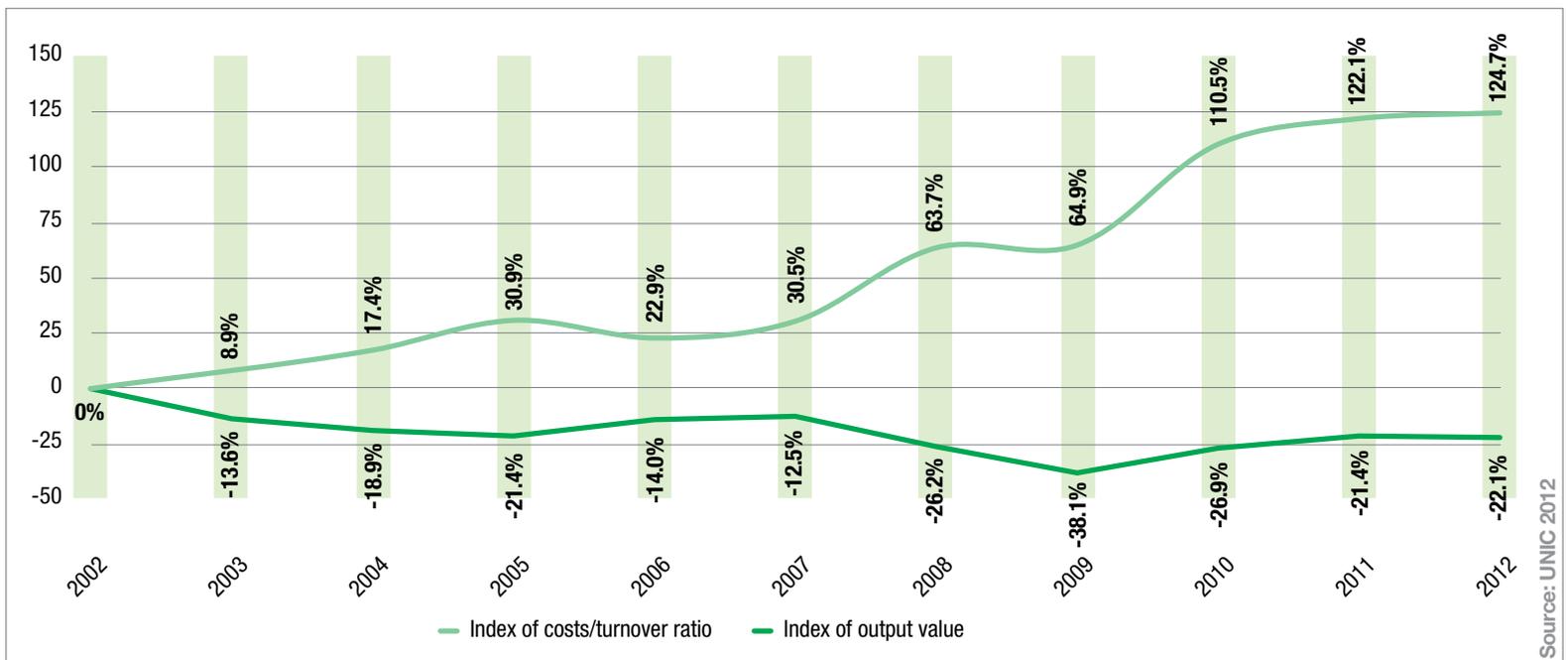


Figure 34 - Variations of environmental costs / Turnover – output value 2002 - 2012 (%)







# Social

sustainability



The Social Report is the vehicle through which the industry has, since 2007, reported on the characteristics of organizational structure, labor relations, and relations with the community.

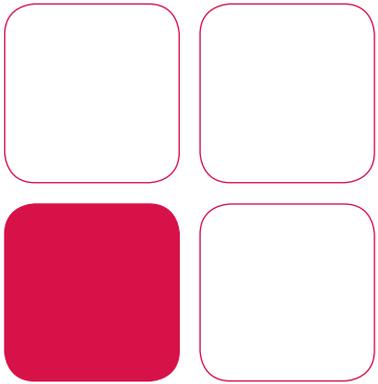
Tanneries, especially those within the various industrial districts, play a key role in the development of the socio-economic context in which they operate. Along side the wellbeing generated by the jobs they provide and their commitment to preventing and reducing pollution, there have been a great many initiatives involving the community to promote relations between the industry's firms and the public at large.

In terms of human resources, the various indicators of social performance point to a situation of essential stability with no significant changes compared to the previous period.

Injury has declined significantly thanks to the ongoing commitment to improving the conditions of the workplace through investments in technology, the implementation of management models, and the enhancement of training in the area of occupational health and safety.

Both nationally and regionally, the industry also plays a proactive part in relations with the public sector. Along side projects and agreements concerning issues such as increasing and improving career training, initiatives aimed at promoting education and culture among young people were also of great importance.

The UNIC's Code of Conduct and Social Responsibility is the document that formalizes the principles and values that guide the efforts of the businesses in the tanning industry and that supports the development of proper management of social responsibility and the reporting of social performance to all stakeholders. The new code (included in the Annexes below) has been expanded to include both the principles of the leading international conventions concerning the workers' rights (ILO) and the main voluntary standards of social responsibility (SA 8000, ISO 26000) as guarantees of business ethics and consumer protection. Compliance with the code by Italian tanneries is verified through on-site inspections conducted by the industry's certifying body (ICEC).



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# Human

resources



As in other manufacturing industries, the organizational structures of tanneries feature a high level of production-related workforce (74.9%), although the level has declined slightly in 2012 as other mid-level positions—including office staff and production technicians—have increased (22.6%). Management-level positions are limited (2.5%), but are slowly on the rise, evidence that the industry is undergoing changes in organizational structure towards a greater use of skilled labor that will be able to face the new challenges of internationalization and of the marketplace generally, including in terms of new products and of optimizing business processes. This trend also finds confirmation in the—even more significant—numbers on employee education (Fig. 5), with those who have either a secondary-school diploma or university degree going from 21.1% in 2007 (the year in which such data was first gathered for this study) to 32.9% in 2012.

In terms of contract types (Fig. 2), the numbers confirm the stability being seen in the employment relationship (with 87.2% of employees being on permanent contracts). The use of other types of employment contract has remained virtually constant in percentage terms: limited-term employment contracts (8.7%); and temporary, project and trainee contracts (4.1%), with temp work increasing while project-based and trainee contracts being used relatively little.

The breakdown of the workforce by age (Fig. 3) and length of employment (Fig. 4) has also not changed significantly. Young people (35 and younger) account for one-fourth (25.9%) of all employees. Of the total workforce, 65.8% fall within the 36-55 age range. In terms of length of employment, 60.5% of all employees have worked for the same company for fewer than 10 years, confirming both the continual insertion of new talent into the industry and a certain mobility within the more specialized positions.

The statistics concerning the employees' hometowns confirms the strong ties that the industry has with the community, where it acts as a driver of social and economic development. Indeed, 72.6% of the workforce comes from the same city or province of the given tannery district. (In Tuscany, the district covers contiguous territory in both the Pisa and Florence provinces.) The percentage of employees originating from outside the EU has fallen slightly (10.9%). The use of labor with non-EU origins varies markedly from one region to another (at over 30% in Veneto, roughly 7% in Tuscany and just over 2% in Campania and in the other regions) due to both the structure of the companies in each region and the availability of workers there.

Figure 1 - Organization's structure 2007 - 2012 (%)

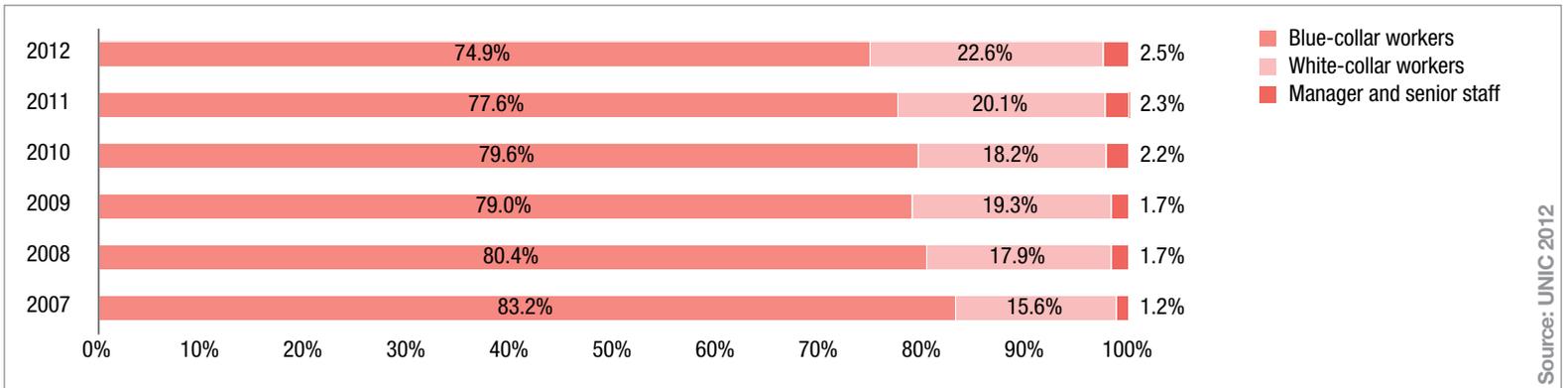


Figure 2 - Type of employment contracts 2008 - 2012 (%)

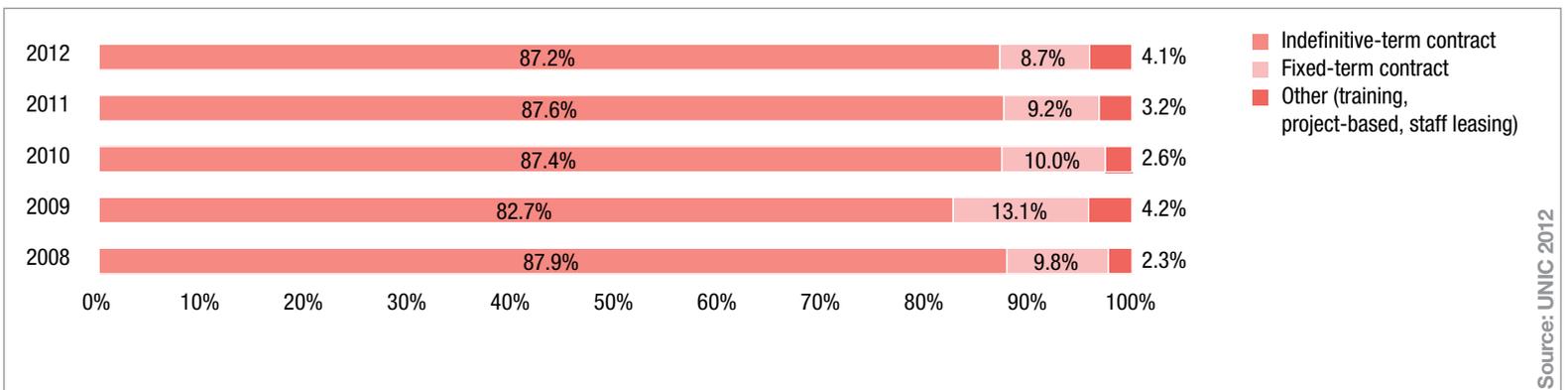


Figure 3 - Age groups 2007 - 2012 (%)

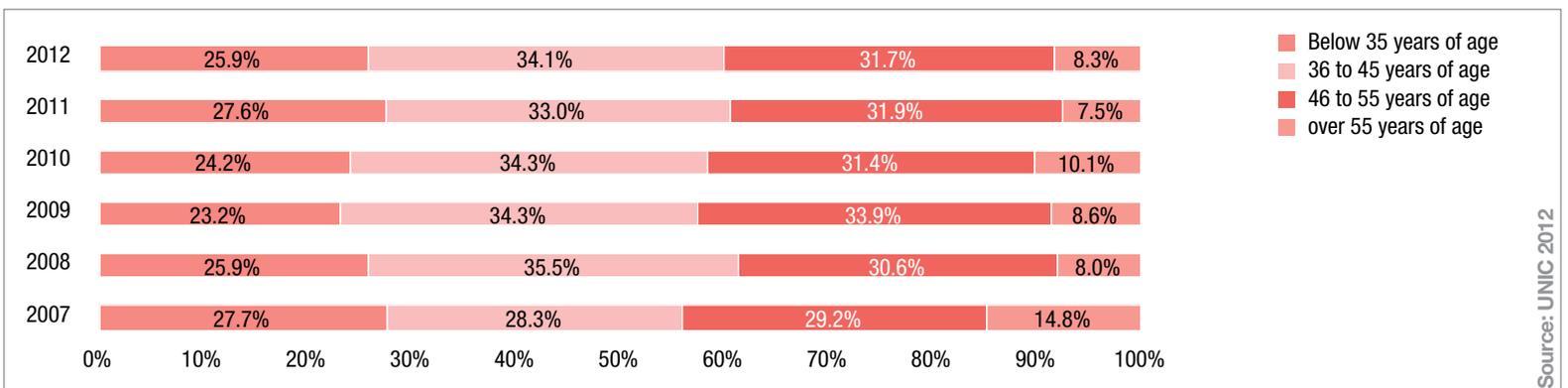


Figure 4 - Seniority of service 2007 - 2012 (%)

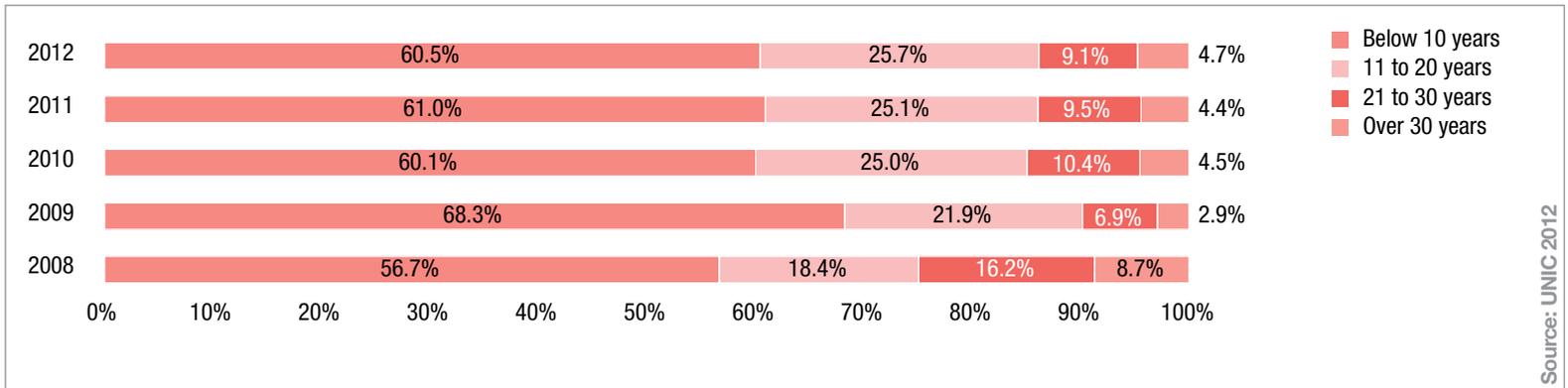


Figure 5 - Level of education 2007 - 2012 (%)

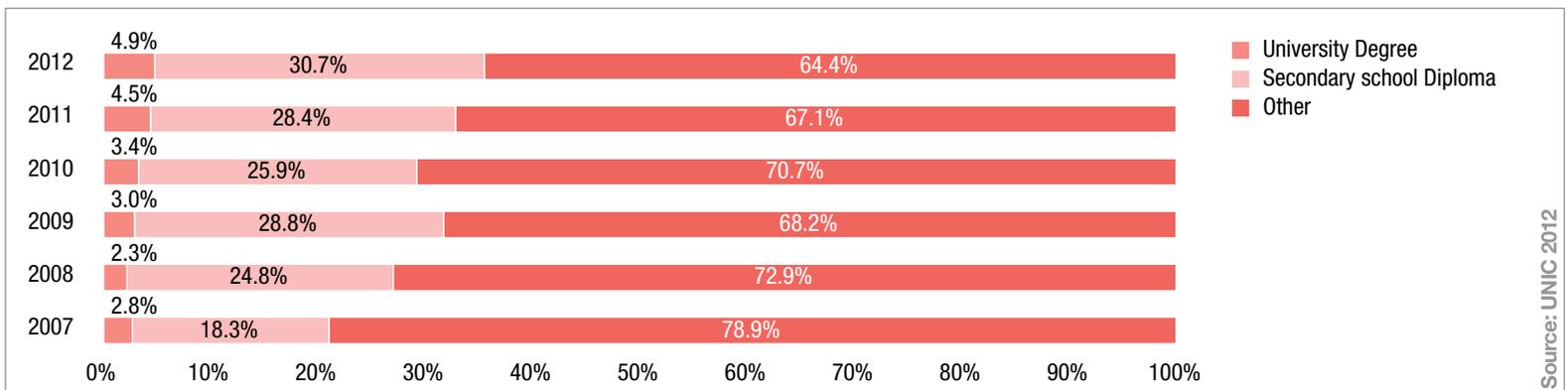
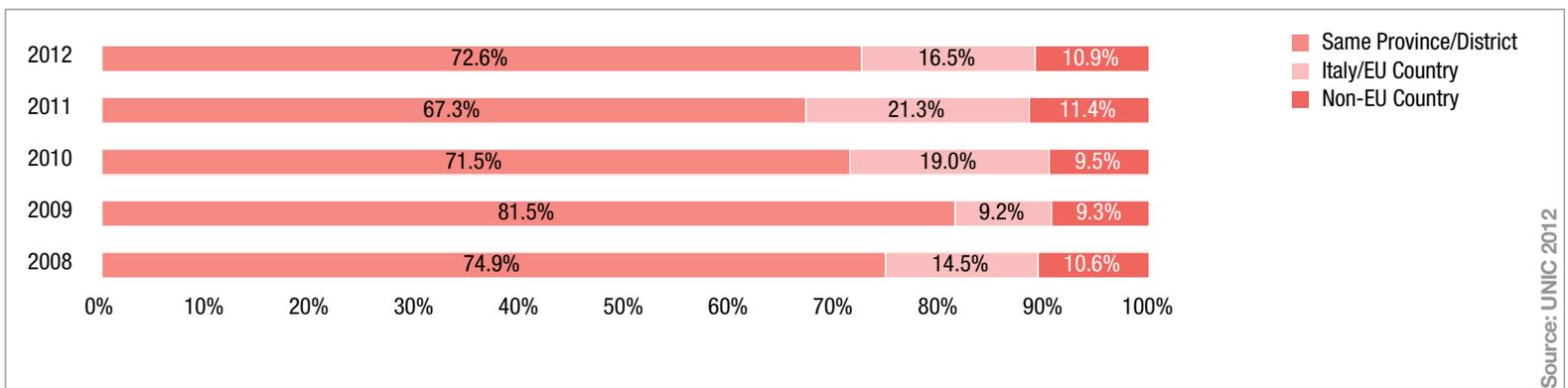
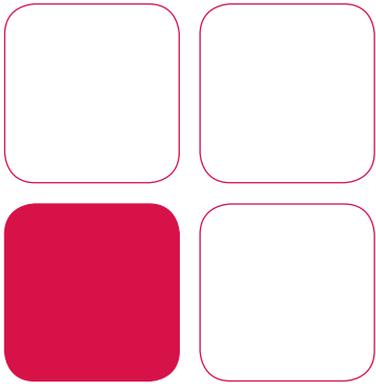


Figure 6 - Area of origin 2008 - 2012 (%)





Labor

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# relations

Relations with the various trade unions take the form of various meetings concerning the provision of information and discussion of the industry's collective bargaining agreement. Of particular importance are the discussions concerning the national and regional observatories called for in that collective bargaining agreement related to the environment, occupational health and safety, training and development, the job market, and social responsibility.

Dialog with the various social partners is governed regionally, nationally and at the EU level. Since 2012, Italy's Tannery Industry Observatory has been involved in the European Skills Council for the Textile, Clothing and Leather (TCL) industry, an initiative of the related European social partners aimed at promoting competitiveness and employment through the development of professional skills and the promotion of education, training and job market information.

In addition to the industry's collective bargaining agreement, which is adopted by all companies within the industry, second-level supplemental agreements at the regional or company level are also used and vary significantly from one district to another.

The percentage of workers registered with a trade union is around 20% (Fig. 7).

A breakdown of the use of social "safety nets" (Fig. 8) shows that use of the ordinary special public fund "CIG" has increased (to 89.5%) compared to the previous year, while use of the extraordinary fund or other exceptions has declined (to 9.3%). The use of exceptions to the CIG in 2012 increased relative to use of the extraordinary fund. The use of other forms of wage support (e.g. solidarity agreements, mobility agreements, early retirement incentives) was minimal (at 1.2%).

The employee-incentive programs reported for 2011 were also confirmed in 2012 (Fig. 9), the most significant of which were flexible work schedules (30.5%) and tax consulting (67.6%).



Figura 7 - Figure 7 – Union members  
2008 - 2012 (%)

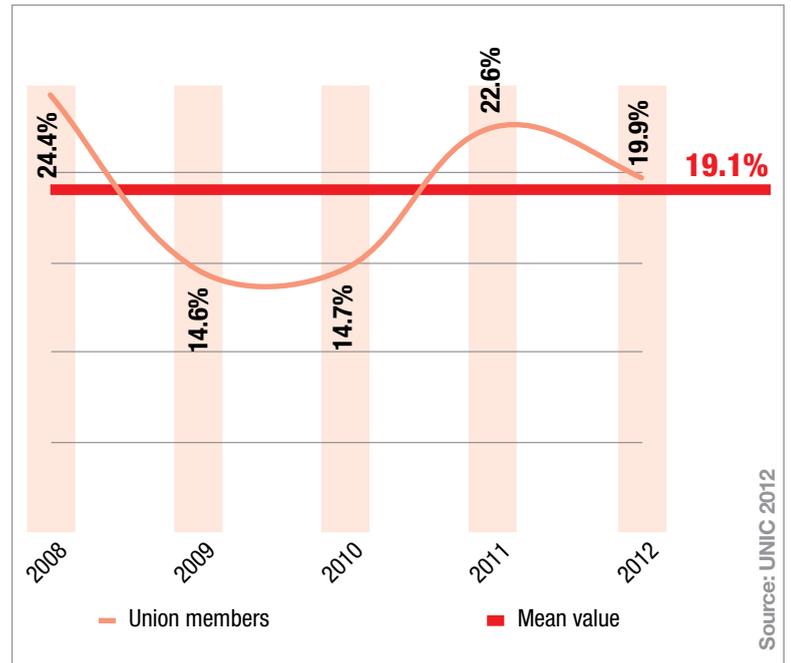


Figure 8 - Redundancy schemes 2009 - 2012 (%)

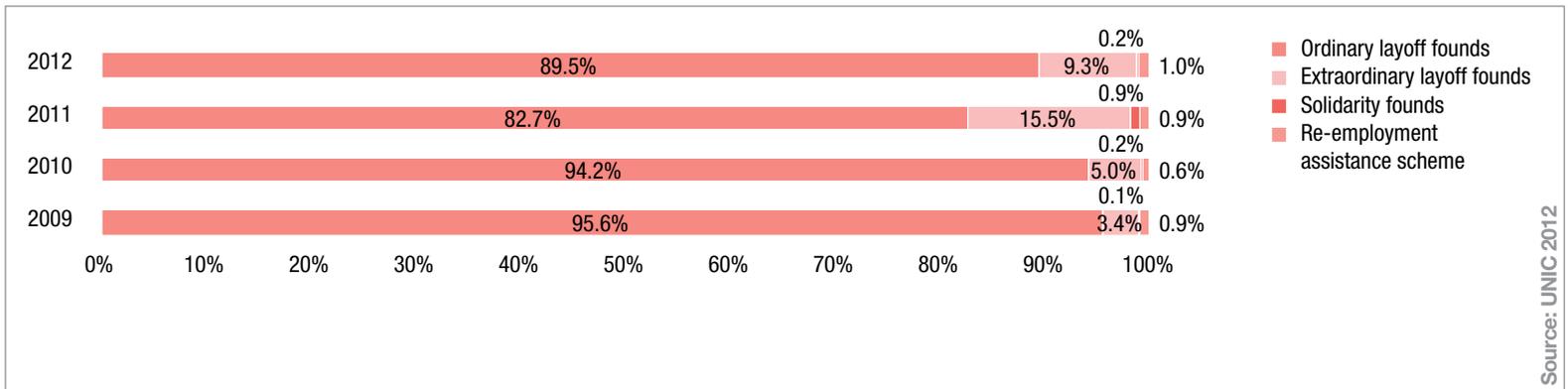
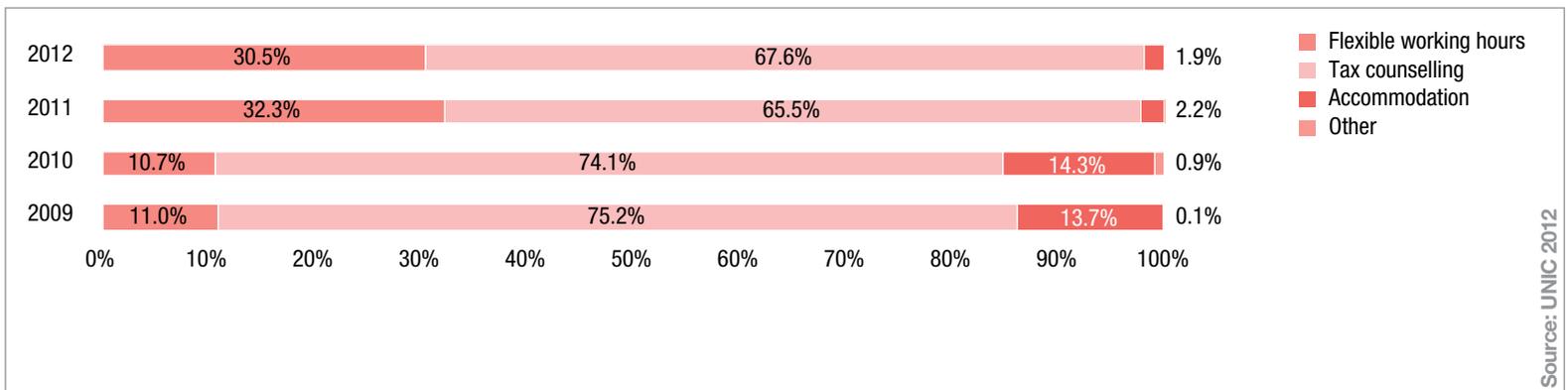
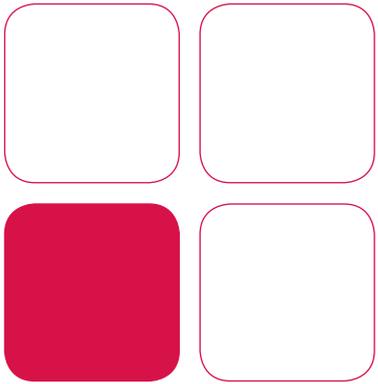


Figure 9 - Incentives and benefits 2009 - 2012 (%)





Training

# activities



**T**raining has long been a key tool in the development of human resources and in promoting a culture of enterprise, as well as being an essential part of promoting health and safety in the workplace.

The analysis of training and development efforts took account of the following:

- *training required by applicable laws and regulations (e.g. health and safety in the workplace, the use of special plant and equipment, trainee programs, etc.);*
- *skills development, career training, and training to better involve workers in the company's goals and policies (e.g. product and process quality, environmental performance, sustainability).*

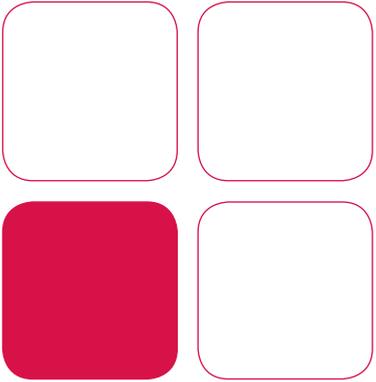
Along side the traditional training courses provided both within the company and in the classrooms of external training centers, significant

emphasis has also been placed on on-the-job training provided with the help of other employees or outside experts and concerning the use of new plant, machinery and instrumentation or regarding new products.

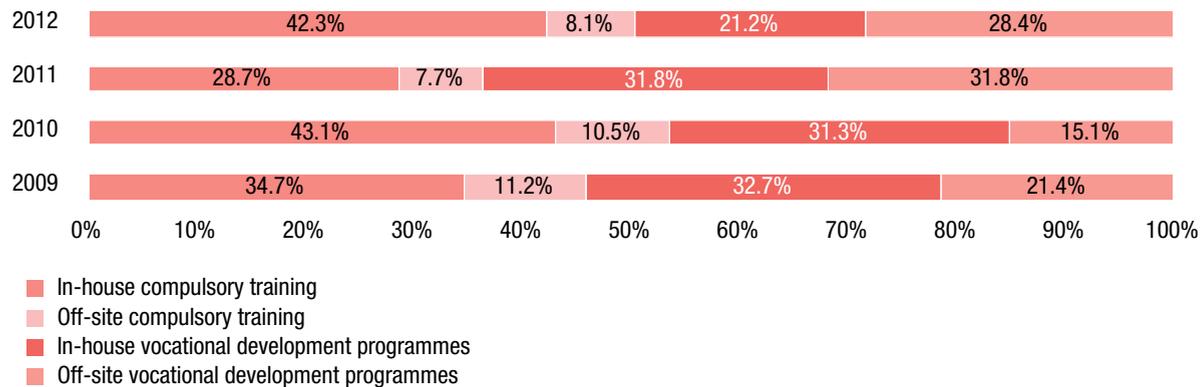
This study looked at the various types of training provided (Fig. 10) and the target audiences concerned (Fig. 11).

In 2012, there was an increase in mandatory in-house training (42.3%) related mainly to training in the area of occupational health and safety and in response to the Italian regional-national agreement regarding the methods, duration and frequency of training. For this reason, the number of employees involved in mandatory training also increased (72.3% in-house, 8.1% external).

For the year under review, skills training declined slightly, although it remained at a fairly good level (39.6% including both in-house and external training and involving 20.3% of the workforce).

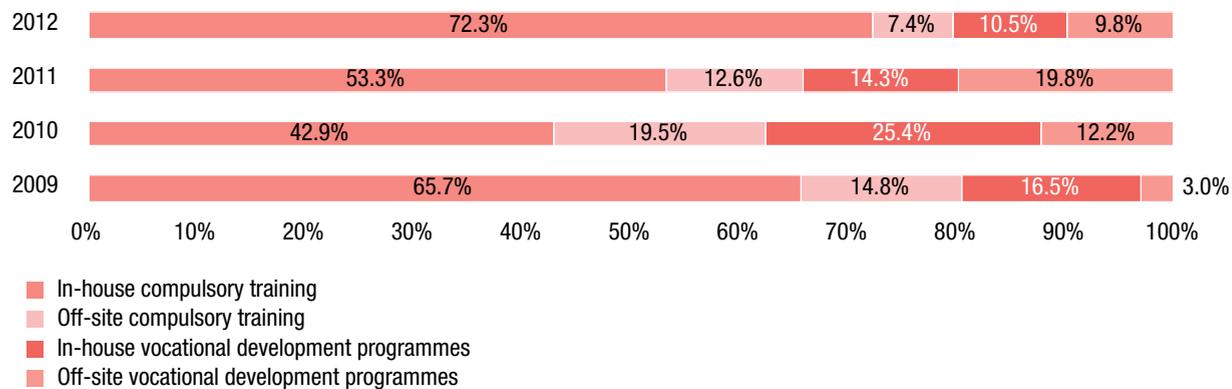


**Figure 10 - Training activities 2009 - 2012:  
breakdown by number of activities (%)**

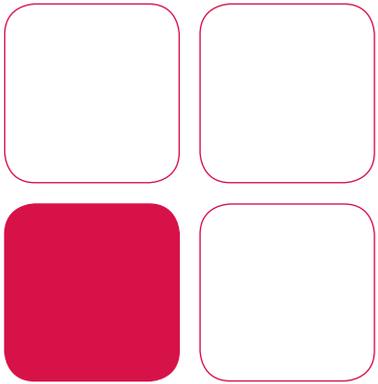


Source: UNIC 2012

**Figure 11 - Training activities 2009 - 2012:  
breakdown by number of people (%)**



Source: UNIC 2012



# Accidents



The number of injuries in the tanning industry declined further in 2012 after the significant drop witnessed in 2011, with a consequent decline in the number of work days lost. This trend in injuries can be clearly seen in the following three indicators:

● **Accident index:**

*total number of injuries x 1000 / number of employees*

● **Gravity index:**

*days lost / number of employees*

● **Average duration:**

*days lost / total number of injuries*

These indicators (Fig. 12, 13 and 14) are all trending downward and are below the average for the six years surveyed. This is due, in particular, to the use of appropriate, effective measures to reduce risks (Fig. 15), which points to the high degree of awareness of the importance of accident prevention in the industry.

Indeed, in addition to training, both technical and organization measures (the latter being primarily the adoption of operating procedures and instructions) have also been implemented (representing 26.4% and 43.5% of all such additional initiatives, respectively) in order to manage the most critical risks (e.g. the use of cutting tools, inserting and removing skins from machinery, handling chemicals), and various management systems or models were implemented (30.1% of such initiatives), few of which have been certified.

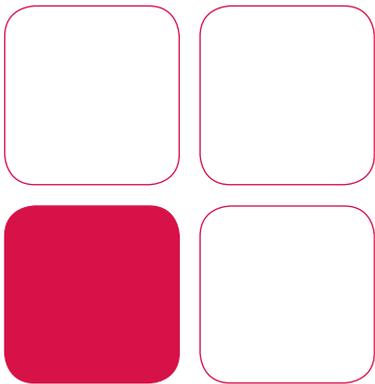


Figure 12 - Relative accident frequency 2006 - 2012  
(1,000 accidents/number of workers)

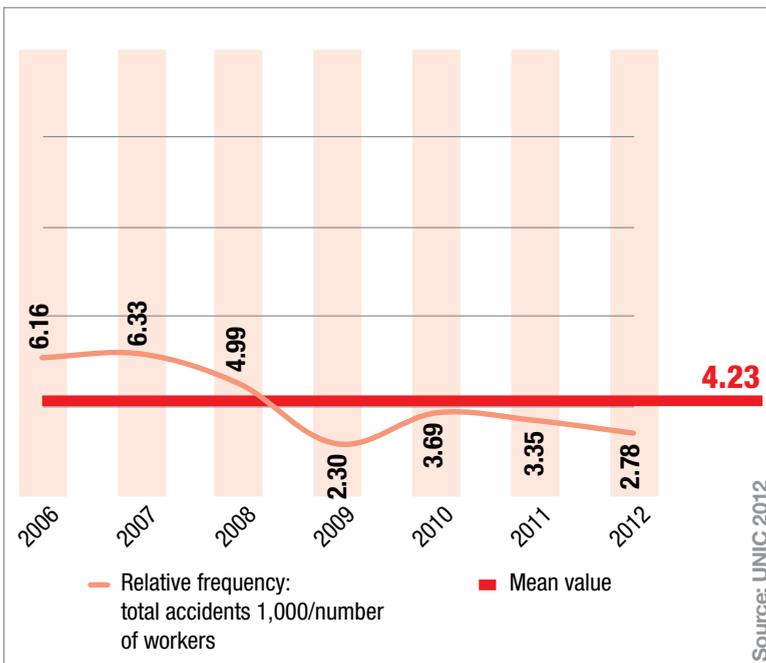


Figure 13 - Severity ratio 2006 - 2012  
(lost days/number of workers)

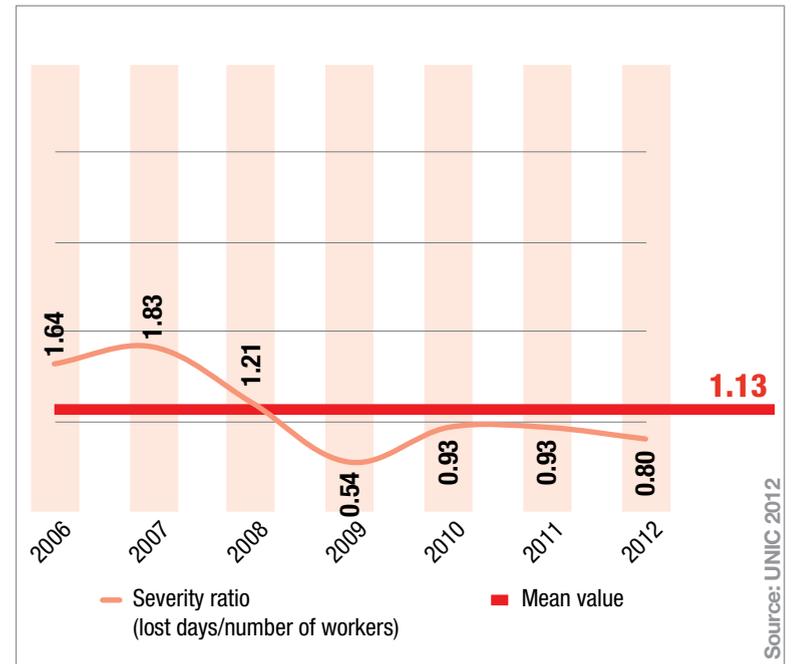


Figure 14 - Mean duration 2006 - 2012  
(days of absence from work/number of accidents)

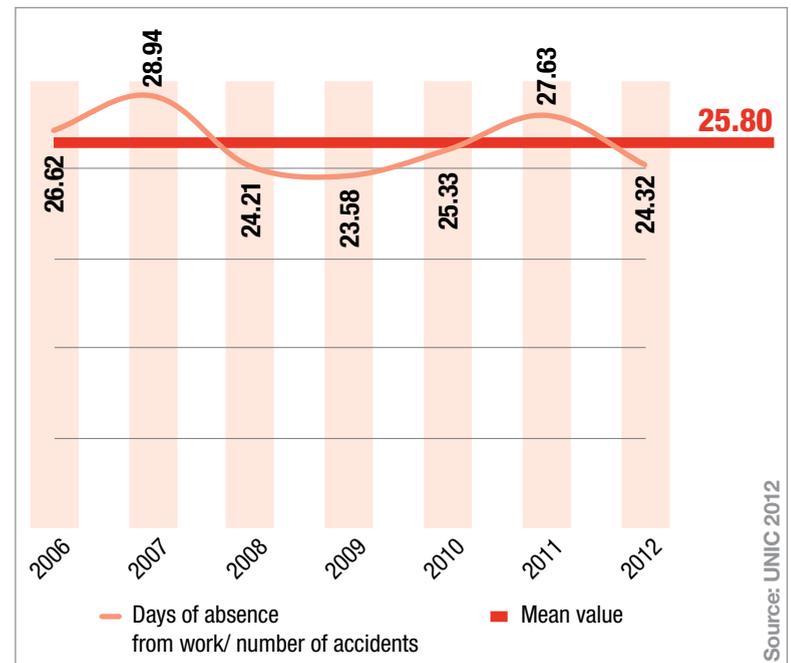
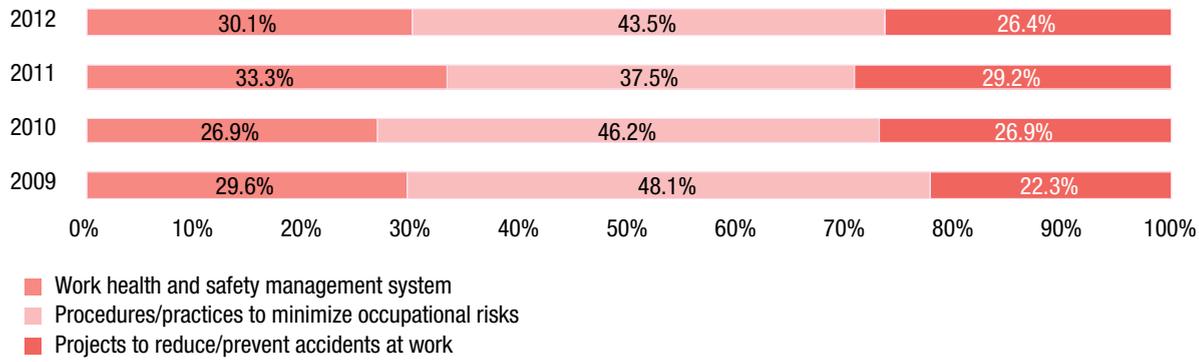
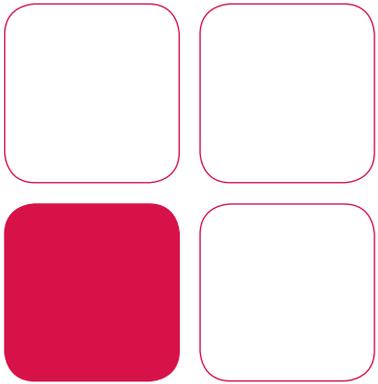


Figure 15 - Actions taken to minimize occupational risks 2009 - 2012 (%)



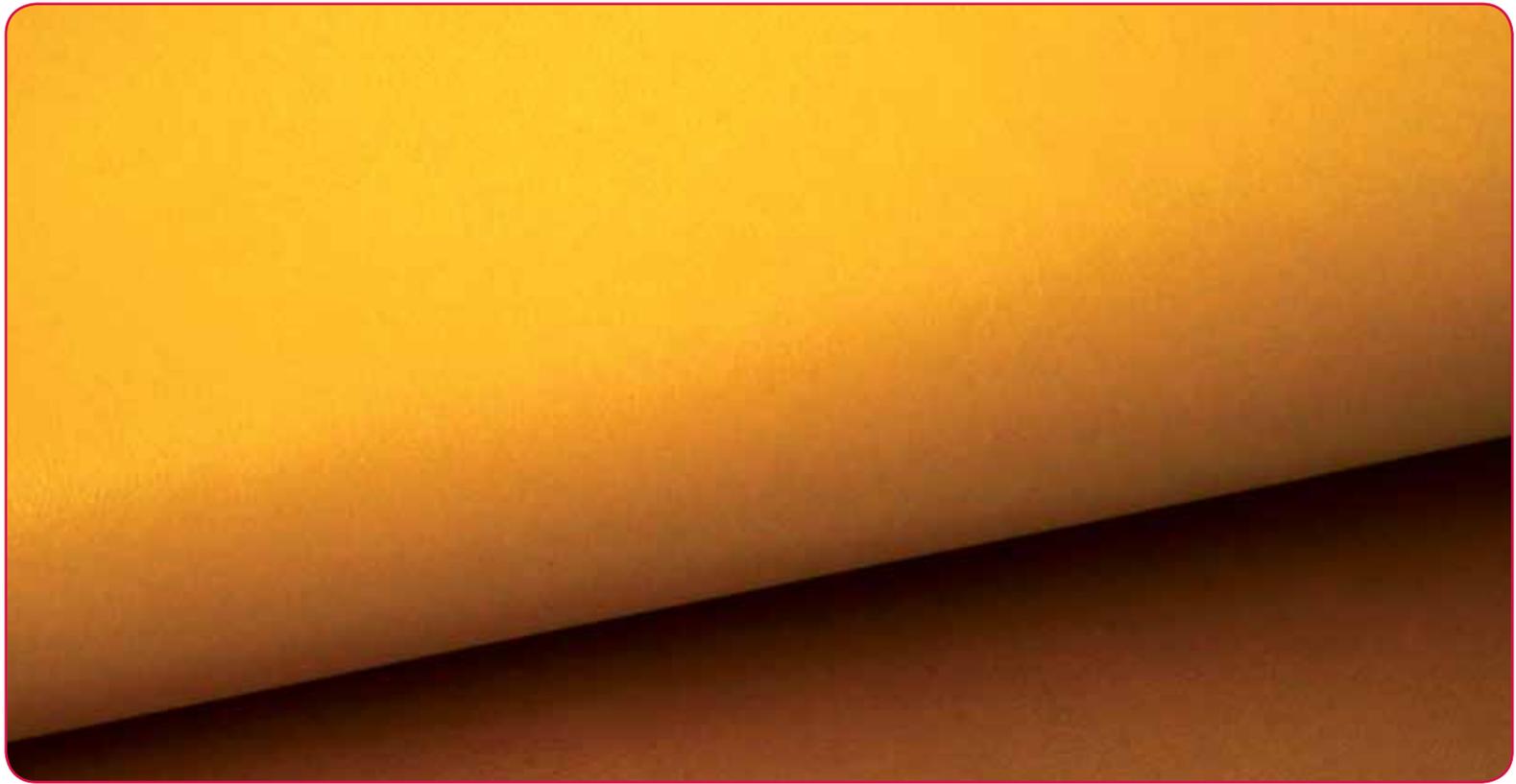
Source: UNIC 2012





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Corporate  
**giving**



The evolving role of the corporation, from being a mere source of economic wealth to an actual proponent of social wellbeing, calls for the definition of a new model of management that is better based on an awareness of the context in which the organization operates and of the importance of supporting projects of public good.

In that regard, corporate giving is a strategic tool that enables organizations to promote socially proactive conduct and contribute to social wellbeing, while also pursuing more business-oriented goals.

This report looks at a number of aspects that can help to provide an overview of the industry's commitment to the communities in which our companies operate.

This takes account of both initiatives pursued by individual companies and joint projects promoted by various regional and national associations of companies.

For this reason, association membership and involvement in other working groups and similar entities play a particularly important role in corporate giving (with 69.9% of all companies belonging to industry associations and 12.5% belonging to other working groups and similar entities – see Fig. 16) As many as 19.6% of all companies have

adopted codes of ethics or conduct as a means of managing and conveying their policies in the area of social responsibility.

The role played by local groups has been particularly important (Fig. 17) to the planning and implementation of policy agreements (35.3%) and district projects (43%), especially as concerns the environment. Events of an economic, social or cultural nature that were promoted by individual companies or (local and national) associations in 2012 accounted for 21.7% of the total.

At the national level, the project "Conciati ad arte", which involved middle-school children from the schools of the various districts, and other initiatives to enhance and improve the education provided in the various communities were also of great importance.

This close relationship between the companies and their communities can also be seen in the analysis of the solidarity initiatives (Fig. 18), 78.2% of which concerned local non-profit organizations.

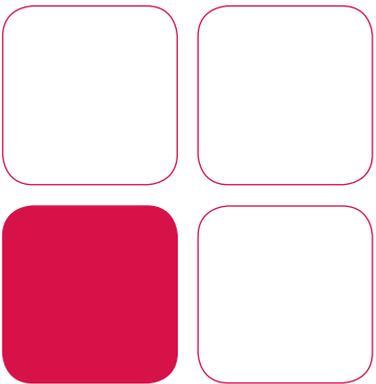


Figure 16 - Associations and self-regulation 2009 - 2012 (%)

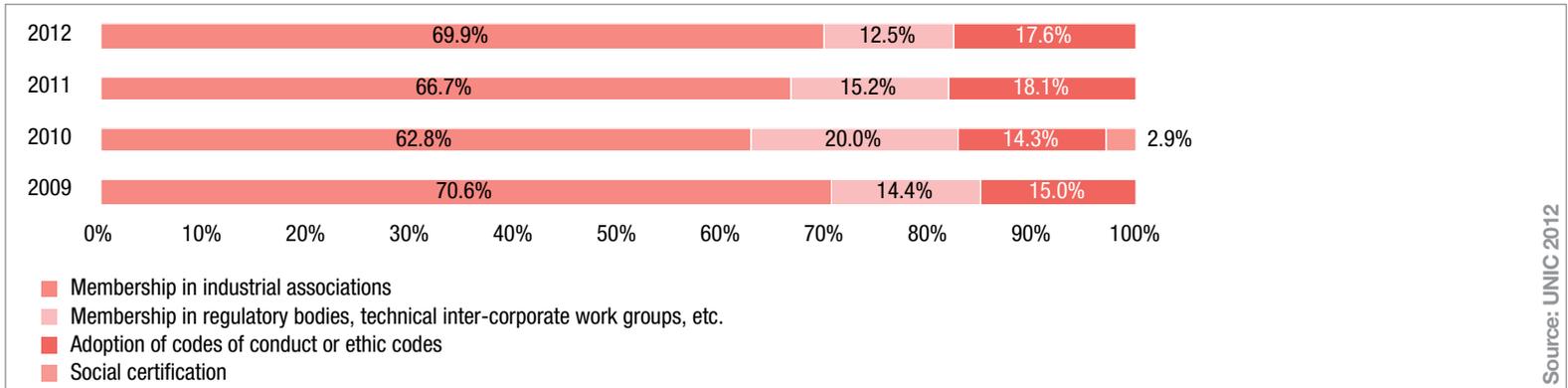


Figure 17 - Participation to local initiatives 2009 - 2012 (%)

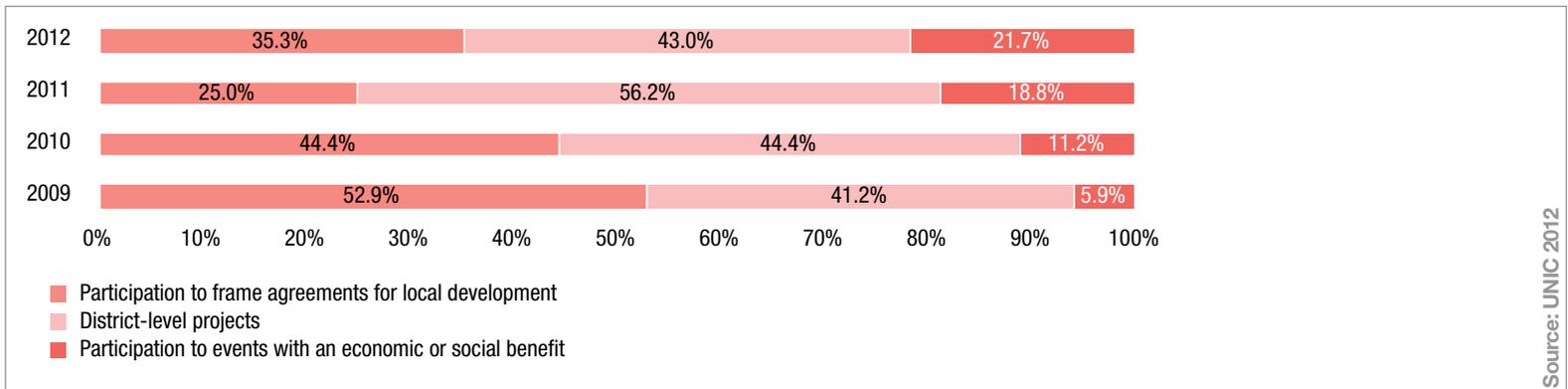
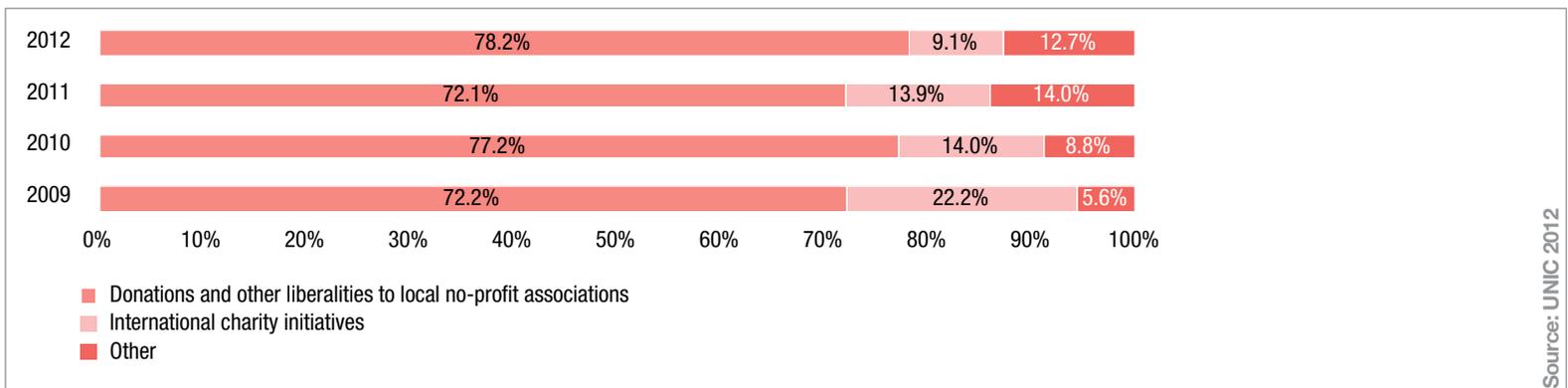


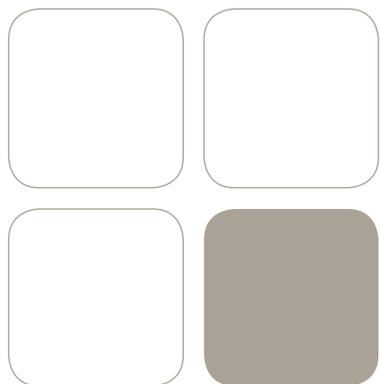
Figure 18 - Relationships with the community and charity 2009 - 2012 (%)







# Appendix



# Code of conduct and social accountability

**T**he company that voluntarily complies with the code of conduct and social accountability UNIC must ensure compliance with the relevant legislation in force, including the National Collective Bargaining Agreement of the tanning sector and with the requirements contained in the present document, drawn from the most important international agreements and standards concerning "social responsibility" and applied to the manufacturers and service providers of the leather sector.

The present Code is approved by the following trade unions: FILCTEM-CGIL, FEMCA-CISL, UILTEC-UIL.

In order to verify that the requirements needed to obtain declarations of compliance with UNIC's Code of conduct and social responsibility are met and maintained, companies are regularly inspected by a qualified third party (ICEC) charged by UNIC thereof. Further controls are also possible to check that a company's suppliers/contractors meet the provisions prescribed for them.

For the correct interpretation of the requirements of the code refer to the document "Guidelines for the adoption and implementation of the UNIC's Code of conduct and social accountability".

## Child labour

- 1.1 The company must not use or support the use of infantile labour.
- 1.2 The company has in particular to protect employable minors from any conditions that may be dangerous, hazardous or harmful for their health and safety in the workplace, in compliance with the prescriptions of the legislation in force.

## Forced labour

2. The company shall not use or support the use of forced labour, nor ask their staff to deposit any money or original identity documents for conducting of the employment relationship.

## Discrimination

3. The company shall not discriminate upon hiring, remuneration, access to training, advancement, layoff or retirement based on sex, race, national origin, disability, religion, social status, sexual preference, union membership, political affiliation, age and any discriminatory condition.

## Labour union and bargaining

4. The company shall respect the right of all workers to join the union of their own choice and to participate to collective bargaining.

## Health and safety on the workplace

- 5.1 The company shall provide a safe and healthy workplace and will adopt appropriate measures to prevent and manage work accidents and damage to health during the performance of a job or resulting there from.
- 5.2 The company shall appoint a managers' representative to implement all issues guaranteeing health and safety in the workplace.
- 5.3 The company shall ensure that the staff receives an effective training about health and safety at work. Such training is regular, documented and repeated for any new or reassigned staff.

## Working hours

6. The company shall comply with the laws and all dispositions currently in force contained in the National Collective Labour Agreement regarding the working hours for the workers of the tanning industry and related sectors. The mean weekly hours, calculated over a reference 12-month period, shall not exceed 48 effective working hours. The staff will be guaranteed at least 24 consecutive hours' rest every 7 days.

## Remuneration

- 7.1 The company shall guarantee that remuneration always corresponds to the standards fixed by the law and to the minimum parameters fixed in the National Collective Labour Agreement for the workers of the tanning industry and related sectors.
- 7.2 The company shall guarantee that the composition of remuneration and of allowances is clearly and regularly specified.

## Human resources enhancement

8. The company shall promote the enhancement of human resources through skills development, corporate culture and employability, including through continuing training initiatives.

## Environmental

9. The company shall fix and maintain procedures and practices aimed at reducing the environmental impact of its activities.

## Involvement and development of the community

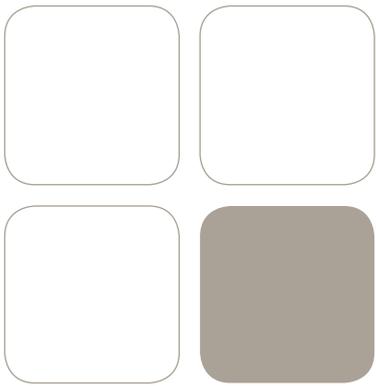
10. The company needs to promote community development through dialogue and collaboration with stakeholders, also through representative associations to which he subscribes.

## Professional behaviour

- 11.1 The company shall respect the principles of transparency, fairness and good faith in its relationships with the institutions, customers, suppliers, and competitors, and avoid any unfair competitive actions likely to cause damage and violate the principles of the present code.
- 11.2 The company shall guarantee product quality and consumers' protection.

## Policy and management

- 12.1 The management must formalize a corporate policy for social responsibility so as to guarantee:
  - a) the commitment to comply with the principles of the code, to maintain compliance with legislation in force and to comply with the agreements signed;
  - b) the commitment to continual improvement, in particular with reference to the organizational system;
  - c) to be easily accessed and understood by all employees, including directors and management;
  - d) to be available to all stakeholders.
- 12.2 The company shall appoint a representative of management to ensure, independently from other responsibilities, the compliance with all requirements of the present document.
- 12.3 The company shall ensure that workers choose their representative to facilitate relations with the administration regarding matters of this document.
- 12.4 The company shall establish and maintain appropriate procedures to assess and select suppliers and contractors based on their capacity to meet the requirements of the present document and give documented evidence thereof.
- 12.5 The companies must establish and periodically review corporate objectives in relation to the provisions of this Code and to provide procedures for communicating the performances to all stakeholders.
- 12.6 The companies must ensure that all the requirements of the Code internally are understood and effectively implemented
- 12.7 In the case of non-compliance or pending disputes on the issues covered in this document and for their resolution the company must prove by objective evidence their adequate management through corrective actions. The company must also develop preventive actions to avoid their recurrence.
- 12.8 The company will keep a suitable documentation certifying compliance to the requirements of the present document.



ICEC

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# Social and environmental

certifications and  
declarations



### UNI EN ISO14001 Certification

**"Environmental Management  
Systems"**

*ICEC Accreditation*  
**Accredia nr. 019 D**

The certified company's management system is adequate for keeping the environmental impact of its activities under control and is systematically improved in a consistent, efficient and sustainable way.



### EMAS REG. 1221/2009 Validation

**"Eco-management and auditing  
system"**

*ICEC Accreditation*  
**Ecolabel-Ecoaudit Commission  
nr. IT-V-0016**

EMAS is mainly focussed on improving the environment and offering to the market, control authorities and citizens a useful tool to be informed about a company's environmental performance, i.e. the Environmental Declaration



### EPD Validation

**"Environmental Product  
declaration"**

*ICEC Accreditation*  
**Accredia nr. 005 H**

Based on the enforcement of the Product Category Rules (PCR) governing bovine leather, this document helps companies issue their product environmental declarations in compliance with ISO 14025 standard, and with a Life Cycle Assessment approach in accordance with ISO 14040 standard.

UNI 11427



### UNI 11427 Product Certification

**"Definition of the performance  
characteristics of leather with  
a low environmental impact"**

*ICEC Accreditation*  
**under preparation with Accredia**

The environmental criteria and functional characteristic of eco-friendly leather are being standardized at a national level. In particular, this standard fixes the minimum requirements to be met to obtain the eco-leather logo.



### Code of Conduct and Social Accountability UNIC

The Code represents an essential tool to make the principles driving the company be known. The document officially identifies the values of conduct and social responsibility adopted by the company. The document is based on the principles of ISO 26.000, SA 8000, the most important international agreements (ILO) concerning the protection of workers' rights, as well as commercial ethics and social and environmental responsibility. The present Code has been approved by the unions.



### OHSAS 18001 Certification

**"Health and Safety  
at Work Management Systems"**

*Accreditation*  
**under preparation with Accredia**

The implementation of a H&S at Work Management System helps companies identify and keep under control all risks related to health and safety in the workplace, reduce the number of possible accidents, be compliant with the legislation in force, and constantly improve corporate performances. It also translates into allowances from INAIL (Italian Institute for Insurance against Work Accidents).



### UNI 11239 Certification "Made in Italy"

**Made in  
"Certification of the leather  
production origin"**

*ICEC Accreditation*  
**Accredia nr. 34 B**

Product standard that indicates the country where leather is produced, according to international customs regulations. In order to be recognized Italian origin, finished leather must have undergone in Italy at least re-tanning, fatliquoring and dyeing processes. If instead all the processes have been carried out in the same country, a "100% made in" can be issued.



*For any further enquiries:*

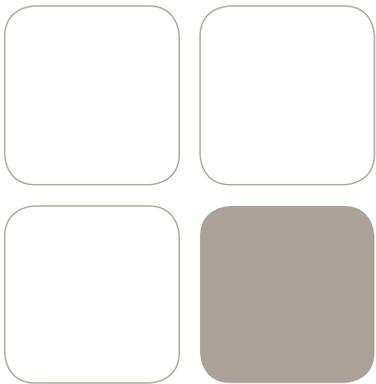
**ICEC  
Certification Institute  
for leather sector**

**Via Brisa 3 Milano  
Italy**

**www.icec.it**

**icec@icec.it**

**tel. +39.02.8807711  
fax +39.02.72000072**

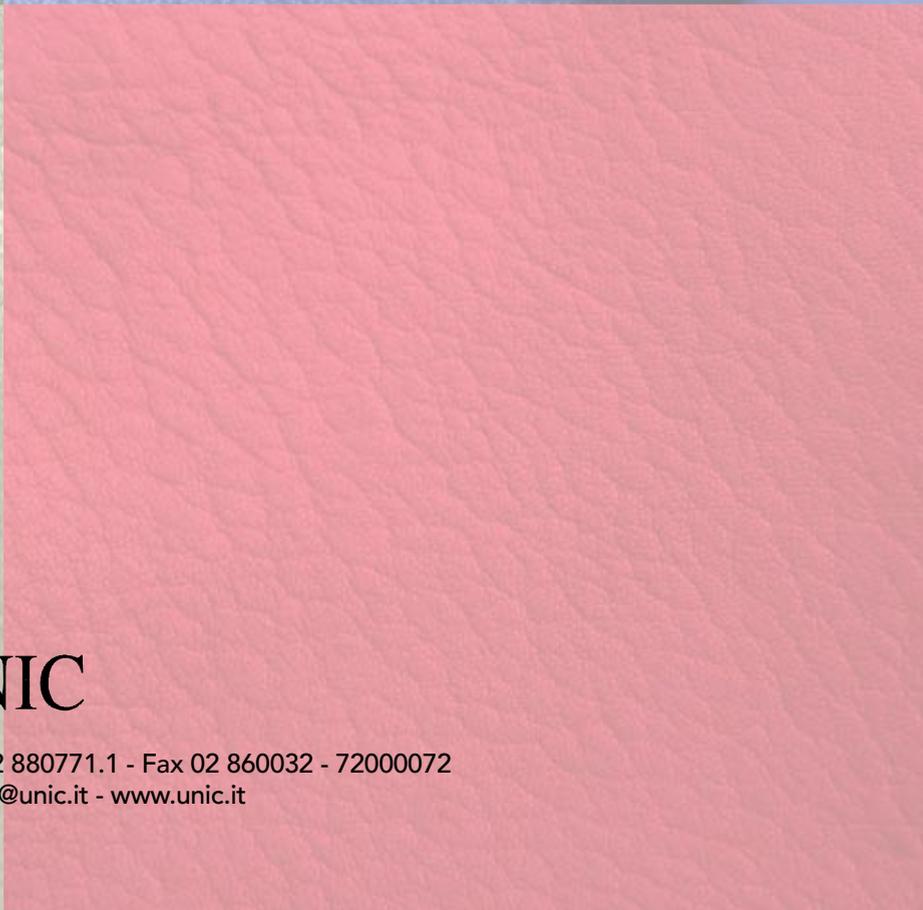


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**UNIC**

Via Brisa, 3 - 20123 Milano - Tel. 02 880771.1 - Fax 02 860032 - 72000072  
e-mail: [ambiente@unic.it](mailto:ambiente@unic.it) - [www.unic.it](http://www.unic.it)