



SOCIO-ECONOMIC DEVELOPMENT & ENVIRONMENTAL SUSTAINABILITY

THE EUROPEAN
COSMETICS INDUSTRY'S
CONTRIBUTION
2017



Cosmetics Europe
the personal care association

Socio-economic development & environmental sustainability: the European cosmetics industry's contribution

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Introduction

The cosmetics and personal care industry makes a **significant social and economic contribution** to national and regional economies across the EU. Through the purchase of goods and services and the payment of taxes and employee wages, the cosmetics industry generates multiple rounds of economic spending and re-spending that benefits the European economy and its citizens.

This report, **prepared by Cosmetics Europe with the support of Risk & Policy Analysts Ltd (RPA)**, provides a comprehensive evaluation of the socio-economic contribution made by the European cosmetics industry (covering the EU-28 plus Norway and Switzerland). Based on a top-down analysis of the cosmetics supply chain, starting from raw material inputs, through manufacturing, distribution and wholesale, to retail and the beauty services industry, this report seeks to illustrate the socio-economic importance of the European cosmetics industry, considering indicators such as employment (jobs and wages), social security contributions and Gross Value Added (GVA).

The research for this report is based on a combination of literature review and consultation with companies and industry associations operating in the sector. Conservative estimates have been used throughout to ensure that benefits are not overstated. While the focus of this study has been on producing quantitative (economic) information, some of the wider, qualitative, benefits of the sector are also discussed. In particular, consideration is given to the various ways in which cosmetics (through satisfying individual's various physical and emotional needs) tangibly improve people's lives. By combining quantitative data on the economic benefits of the European cosmetics industry with qualitative information on the wider catalytic impacts of cosmetics, this study aims to capture the full effect of the cosmetic products industry across its entire value chain.

SOCIO-ECONOMIC DEVELOPMENT & ENVIRONMENTAL SUSTAINABILITY: THE EUROPEAN COSMETICS INDUSTRY'S CONTRIBUTION

The economic contribution made by the European cosmetics industry can be divided into three main types:

- **Direct impact:** Where this corresponds to the contribution to the European economy created by the **manufacture** of cosmetic products.
- **Indirect impact:** Where this results from the purchase of goods and services by firms directly involved in the manufacture of cosmetic products. These **impacts accrue both 'up-stream' in the supply chain** (e.g. when companies manufacturing cosmetic products purchase raw materials, packaging components and other goods and services (e.g. IT equipment, business services) from their suppliers) **as well as 'downstream' in the supply chain** (e.g. in the distribution, wholesale and retail sale of cosmetic products and in the beauty services sector).
- **Induced impact:** Where this is defined as the additional contribution to the economy resulting from increased **expenditure by the workforce** employed directly and indirectly by the cosmetics industry. The income earned by the workers is spent on various goods and services, leading to further economic activity and employment.

In addition to the above, the cosmetics industry also has a number of 'catalytic' impacts:

- Cosmetic products have important functional and emotional benefits. When consumers use cosmetic products their **quality of life** is enhanced.
- Over recent years, Europe has faced a myriad of financial difficulties. By attracting investment from outside of the EU, developing intangible assets (e.g. brands) and investing in R&D, the cosmetic industry is helping to **enhance the competitiveness of the European economy** and contributing to the **future prosperity** of Europe and its citizens.

Environmental and social responsibility are also a key concern for the cosmetics industry and the sector makes significant investments to ensure their products are **ethical** and **sustainable**.



Executive Summary

The cosmetics and personal care industry includes **a wide range of products** dedicated to health, beauty and well-being. Ranging from hair care, skin care, oral and body care to perfumery and decorative cosmetics, cosmetic products are an **important part of people's everyday life and bring important functional and emotional benefits**.

Europe is the **global flagship producer of cosmetic products**. In 2016, the European cosmetics market was valued at **€77 billion**, making Europe the largest market for cosmetic products in the world. Trade is a critical component of the industry, with trade in cosmetic products and ingredients (within the EU30) exceeding €33 billion. Nearly €18 billion worth of cosmetic products were exported from Europe (EU-28) in 2016. Such exports are particularly important in countries strongly affected by the Euro crisis (such as Spain and Italy) where the cosmetics sector is helping to secure national economic recovery.

The industry makes a significant contribution to the European economy across its value chain. It is estimated that the cosmetics industry brings at least €29 billion in added value to the European economy every year, of which approximately €8 billion is contributed directly by the manufacture of cosmetic products (the remaining €21 billion is generated indirectly through the supply chain).

SMEs are key drivers of innovation and economic growth. While there are more than 5,000 enterprises manufacturing cosmetics in Europe, the vast majority of these companies are SMEs. In 2016, there were **4,900 SMEs** in Europe. Along the value chain, a wide variety of different types of enterprises are involved indirectly in the cosmetics industry. For example, there are **over 100 companies manufacturing cosmetic ingredients in Europe, 20,100 enterprises involved in the wholesale of cosmetics and 45,700 specialist stores** retailing cosmetics. About half a million hairdressing and beauty salons (the majority of which are also SMEs or micro-enterprises) also rely on the use of cosmetics and the number of European spas is also growing and may be a source of inward investment to Europe in the form of "wellness tourism".

The cosmetics industry is a science-driven, fast-paced and a highly innovative sector which makes large investments in R&D. Assuming that companies in the cosmetics industry spent just 3% of their annual turnover on R&D in 2014, **total expenditure on R&D** in Europe would have been **circa €1.27 billion**. There are at least **33 scientific innovation facilities** in Europe carrying out research in relation to cosmetics. More than **27,700 scientists** are employed by the cosmetics industry in Europe. Patent activity is a useful indicator

for innovation and, in 2011, approximately 6,000 patents were filed by the European cosmetics industry.

The industry supports millions of jobs. Including direct, indirect and induced economic activity, the industry supports around 2 million jobs. Of these, 164,000 workers are employed directly in the manufacture of cosmetic products, and around 1.6 million workers are employed indirectly in the cosmetics value chain. For every 10 workers employed (directly or indirectly) by the European cosmetics industry, a further two jobs are generated in the wider economic value chain (as a result of employees spending their wages on goods and services). It is estimated that between 347,900 and 521,800 workers are employed thanks to these 'induced' employment effects.

The industry places a strong emphasis on ensuring environmental responsibility and supporting proactive voluntary and self-regulatory initiatives. Cosmetics Europe has developed guidance documents to assist companies (particularly SMEs) to become more sustainable and has engaged, together with four other European associations, in the development of Best Practice for the cosmetics industry in the field of compliance with legislation regarding access to genetic resources and the fair and equitable sharing of benefits derived from their utilisation.

The industry places a strong emphasis on ensuring environmental responsibility and supporting proactive voluntary and self-regulatory initiatives. While aiming to enhance the social benefits of its products, and the economic value of its activities, the European cosmetics industry is committed to reducing its environmental impact throughout the cosmetic products' life cycle stages. Increasing numbers of cosmetic companies are publishing their sustainability targets and are regularly reporting achievements about various aspects. Also, most of the larger companies – not restricted to global players – are active at the level of global sustainability platforms such as the World Business Council for Sustainable Development (WBCSD), the Consumer Goods Forum (CGF), the Natural Resources Stewardship Circle (NRSC) or The Sustainability Consortium (TSC).

Cosmetics Europe and its members have a common belief that sustainability and business success go hand in hand. Cosmetics Europe plays a key role in bringing its members together and developing a forward-looking common sustainability agenda with the aim to jointly improve the sustainability profile of the sector. It is open and committed to collaboration with all relevant stakeholders, throughout the value chain.

Socio-economic contribution of the European cosmetics industry

SMEs & big companies are key drivers of innovation & economic growth in the industry

4900 SMEs

The number is growing

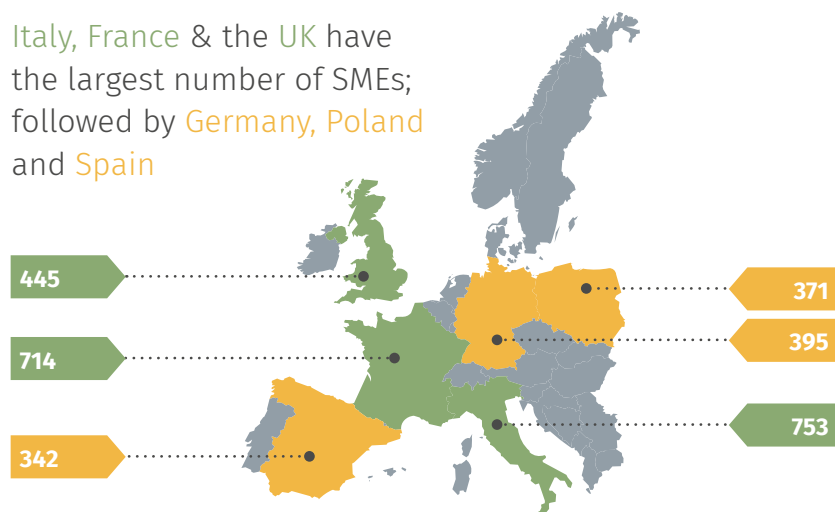
+100 companies manufacturing cosmetics ingredients

20,100 enterprises involved in the wholesale of cosmetics

45,700 specialist stores retailing cosmetics

500,000 hairdressing and beauty salons

Italy, France & the UK have the largest number of SMEs; followed by Germany, Poland and Spain



The industry supports millions of European jobs up & down the value chain

Around
2 MILLION JOBS
across the EU



190,000
people employed directly

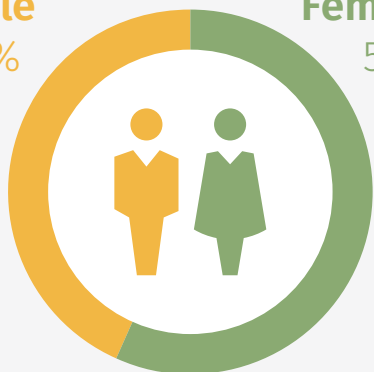
1.58m
people employed indirectly

164,000 total employment in the manufacture of cosmetics

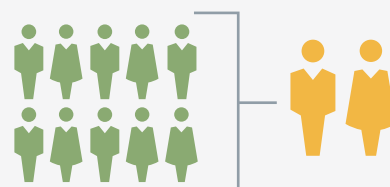
THE INDUSTRY IS CONSTANTLY TAKING STEPS TO INCREASE DIVERSITY & EQUALITY IN THE WORKPLACE

Male
44%

Female
56%



Every 10 workers employed by the industry will support **two jobs** in the value chain

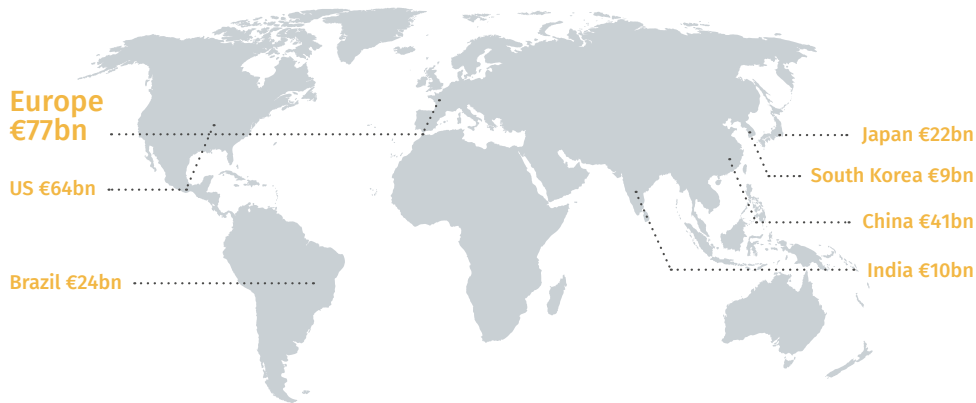


~1,000,000
people active in the hairdressing sector

7,000 people employed directly in the fragrance industry



Europe is the global flagship producer of cosmetic products



> 33bn

trade in cosmetic products & ingredients within the EU30

16.4bn

total exports of cosmetic products from Europe (i.e. extra EU-28)

Skin care & toiletries: largest share of the European market EU 28 (2016)

€18.8bn

Skin Care

€18.5bn

Toiletries

€14.0bn

Hair Care

€11.7bn

Fragrances & Perfumes

€10.4bn

Decorative Cosmetics

France & Germany:
Europe's main exporters
55% of total global exports from Europe

A science-driven & highly innovative industry



Expenditure on R&D in Europe
€1.27bn

At least **33 scientific innovation facilities** in Europe
> 27,700 scientists employed in the sector



2014/15 - Shampoos: the most active area for innovation (globally)
19% of all beauty innovation activity

The industry is about taking care of people



33% women:
hard to live without foundation or concealer



25% men:
hard to live without aftershave



88% people:
hard to live without cosmetics



Handwashing with soap: reduces risk of diarrhoea by **~44-47%** & acute respiratory illness by **23%**



The industry places a strong emphasis on ensuring environmental responsibility and supporting proactive voluntary and self-regulatory initiatives

2015 Cosmetics Europe recommendation to discontinue the use of solid plastic micro particles for cleansing and exfoliating in wash-off cosmetic and personal care products (plastic microbeads).

2016 Cosmetics Europe membership survey found a rapid and substantial 82% reduction, between 2012 and 2015, in the use of plastic microbeads for exfoliating and cleansing purposes in wash-off cosmetic and personal care products.

1. Touching People's Lives

The vast majority of Europe's 500 million consumers use cosmetic and personal care products (hereafter 'cosmetics') contributing to well being and healthy lifestyles, and positive self-esteem every day. Ranging from antiperspirants, fragrances, makeup and shampoos, to soaps, sunscreens and toothpastes, cosmetics play an essential role in all stages of our life.

COSMETICS ARE AN IMPORTANT PART OF PEOPLE'S EVERYDAY LIFE

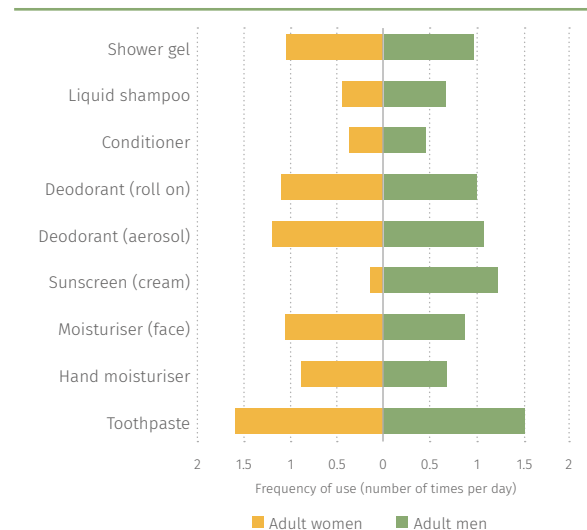


1.1 Use of cosmetics

The market penetration of some cosmetic products is likely to be near 100%. For instance, deodorant penetration is close to total in the UK, with 94% of women and 87% of men using deodorants (Mintel, 2011), while in France, 98% of adult women and 94% of adult men use liquid shampoo (Ficheux et al., 2015).

In terms of the frequency with which cosmetic products are used, differences can be observed across countries, between people of different genders and ages and for different cosmetic products. A sample of data for some of the most widely used cosmetic products is given in the diagram to the right. In a detailed survey of French consumers, the most frequently used cosmetic product was toothpaste, which adult women used 1.59 times per day on average. Adult men used toothpaste 1.52 times per day on average.

FREQUENCY OF USE (NUMBER OF TIMES PER DAY)
FOR A SAMPLE OF COSMETIC PRODUCTS
(FICHEUX ET AL., 2015)

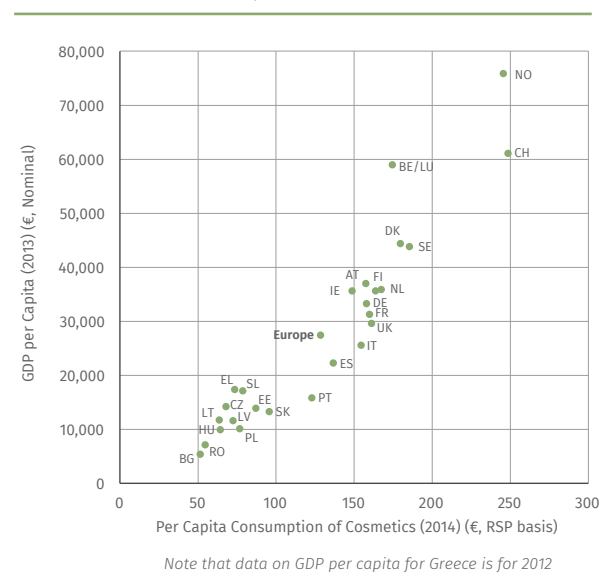


1.2 Expenditure on cosmetics

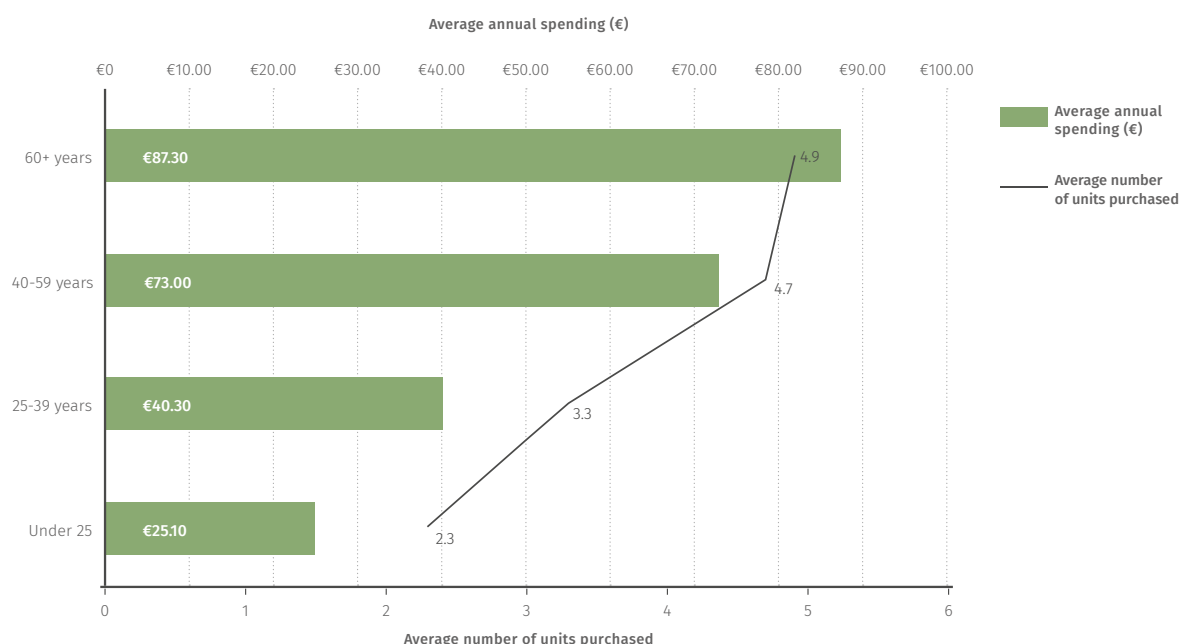
European consumers spend, on average, €134 per year purchasing cosmetic products. A close relationship can be observed between expenditure on cosmetics and GDP, as shown in the figure overleaf. In 2016, consumers in Switzerland and Norway spent the most on cosmetics (around €250 per year), which is unsurprising given that these countries have the highest per capita GDP. Consumers in Bulgaria spent the least on cosmetics – at €51 per year.

Information from the literature review indicates that average annual spend on cosmetics increases by age, such that **older consumers spend considerably more than their younger counterparts**. In the UK, for example, consumers aged over 65 spend more than three times as much on ‘health and beauty’ as consumers aged 19-24 (Kantar Worldpanel, 2014, as reported by Statistica, 2015). European women over the age of 60 spend three times as much on skincare as women under 25 (Credit Suisse, 2013).

COMPARISON BETWEEN PER CAPITA EXPENDITURE
ON COSMETICS (COSMETICS EUROPE, 2014) AND PER
CAPITA GDP (EUROSTAT, 2013)



EUROPEAN WOMEN'S AVERAGE ANNUAL EXPENDITURE ON SKINCARE, BY AGE GROUP (CREDIT SUISSE, 2013)



1.3 Functional benefits

Cosmetics contribute to well-being and healthy lifestyles. As our hands are vectors for disease, carrying pathogens from contaminated sources to susceptible hosts, simple tasks such as washing hands with soap can help prevent serious illness. Multiple studies have shown that the leading causes of child mortality in developing countries, diarrhoeal disease and respiratory infections, can be prevented by handwashing with soap. Indeed, a recent literature review by Ensink (2015) reveals that handwashing with soap can reduce the risk of diarrhoea by around 44% to 47% and acute respiratory illness by 23% (Ensink, 2015).

Many cosmetic products contain herbs and essential oils that can provide additional benefits to our wellbeing. For example, lavender oil is often added for its calming and relaxing properties, while citrus oils may be added because they are uplifting (Deckard, 2015).

The use of toothpaste in industrialised countries has been proven to reduce the prevalence of dental caries, particularly toothpaste with fluoride. Toothpaste

reduces plaque and tartar which can lead to tooth damage and gum disease. Brushing teeth with toothpaste is not only important for oral health but there is evidence that there is a link between gum disease and cardiovascular disease (de Oliveira et al., 2010). Dental care can be a significant economic burden for high-income countries, where 5-10% of public health expenditure is related to oral health (WHO, 2012). There is strong evidence that the benefits of preventing tooth decay far exceed the costs of treatment (Patel, 2012). In 2012, EU27 expenditure (public and private) on oral health totalled €79 billion and is anticipated to reach €93 billion by 2020 (Patel, 2012). If we assume that, without toothpaste, total expenditure on oral health would be just 5% higher than today, then the **total benefits of using toothpaste (in terms of avoided costs) would be approximately €4.5 billion per annum between 2015 and 2020** – with total benefits (avoided costs) amounting to approximately **€26.5 billion** by 2020.



Exposure to ultraviolet radiation is the only established exogenous causal factor for melanoma (a type of skin cancer that can spread to other organs of the body) (Williams & Dienes, 2014). Recent studies have shown that consistent and optimal use of sunscreen may prevent the incidence of melanoma. For example, one study carried out between 1992 and 2006 examined the cancer rates of two groups of adults, aged between 25 and 75 years old (Green et al., 2011). In this study, one group used sunscreen daily and the other used sunscreen at their discretionary frequency.

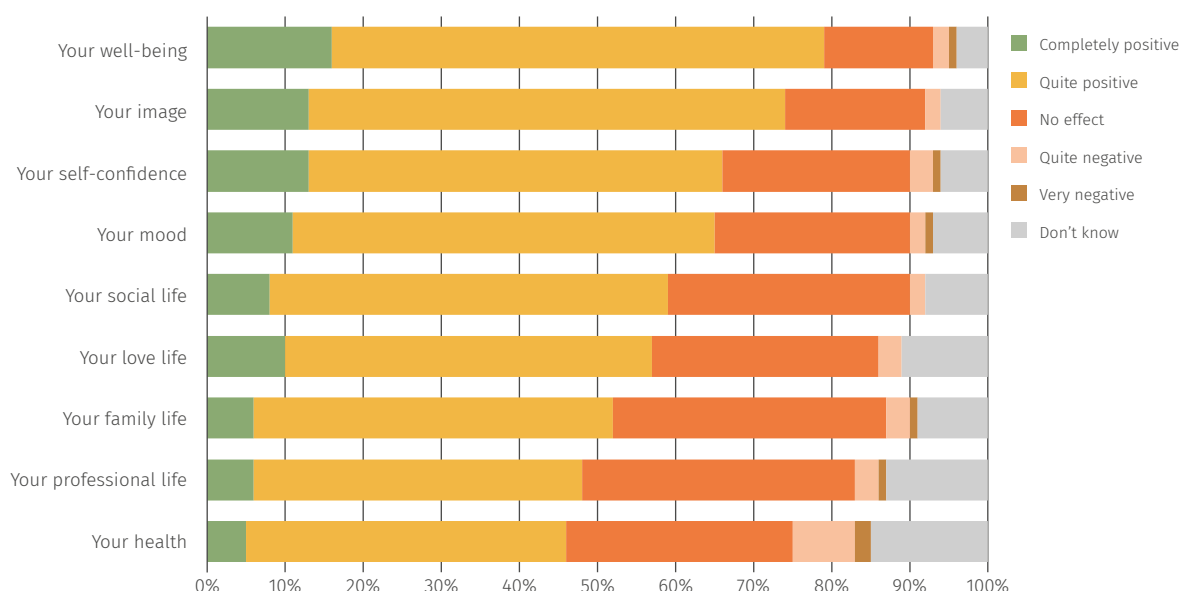
It was found that invasive melanoma was reduced by 75%, for approximately 15 years after trial cessation, in the group who applied sunscreen daily. Regular application of SPF 15+ sunscreen appeared to reduce the incidence of new primary melanomas for up to 10 years after the trial cessation.

1.4 Emotional benefits

Cosmetics can help to improve our mood, enhance our appearance and positive self-esteem. They can also help to exhibit personal style and, as such, are an important means of social expression. In a recent study by FEBEA (2015a), consumers rated the impacts of cosmetics on different aspects of their

life. In this study, over 60% of respondents identified that cosmetics have a positive impact on well-being, image, self-confidence and mood, with a large proportion (>40%) also identifying benefits in terms of social life, love life, family life, professional life and health.

RESPONSES TO THE CONSEQUENCES OF COSMETICS ON DIFFERENT ASPECTS OF LIFE (FEBEA, 2015a)



Low self-image and self-esteem can have a negative effect on our health. A study by the Renfrew Center Foundation (2012), which surveyed 1,292 women (aged 18+), found that almost half of women have negative feelings when they don't wear make-up. Of those surveyed, 16% felt unattractive, 14% felt self-conscious and 14% felt that without wearing make-up they were *"naked / as though something was missing"*. The study found that women wear make-up because they like the way it makes them look (48% of respondents), and because cosmetic use makes them feel good (32%). Indeed, multiple

studies have found that wearing cosmetics can improve people's self-confidence and self-image. A study by Apaolaza-Ibáñez et al. (2011) found that the strongest overall contribution to customer satisfaction with cosmetics was achieved by the emotional experience of *"relief from dissatisfaction with one's self"* which suggests that the need to reduce negative emotions is one of the main psychological motivations for people to buy cosmetics.

SURVEY ON THE IMPORTANCE OF MAKE-UP (BRITTON, 2012)

	Extremely important	Very important	Somewhat important	Neither important nor unimportant	Somewhat unimportant	Very unimportant	Not at all important
How important do you think appearance is?	9	33	46	1	3	0	0
How important is make-up to your appearance?	5	20	39	7	12	5	4
How important is the right make-up to your self-confidence?	11	30	26	10	6	5	4
How important is the right make-up to your comfort in social situations?	8	30	24	12	8	5	5
How important is the right make-up in professional situations?	14	43	24	3	3	0	5

Survey sample size: n = 92.

When asked which products are most valuable for building up self-esteem, people in the UK (in a survey of 2,069 UK adults conducted by YouGov for the CTPA in 2013) rated deodorants and oral care products as the most important, followed by moisturiser and hair products. A third (33%) of women reported that

they would find it hard to live without foundation or concealer and a quarter (25%) of men valued aftershave. **Overall, 88% of respondents said they would find it hard to live without cosmetic products,** with this number particularly high amongst women – 96% of which said they would find it hard.



Look Good Feel Better (LGFB) is a charity dedicated to improving the self-esteem, confidence and wellbeing of women undergoing cancer treatment and is supported by over 50 leading companies and brands from the cosmetics industry. LGFB

helps to improve self-image and appearance through free group and self-help skincare and make-up workshops. The service is available in 26 countries worldwide and over 1.6 million people have been supported to date. A major research initiative highlighted that 97% of respondents felt more confident after attending a LGFB workshop and that the effects of this are enduring, with 96% of respondents still feeling more confident three months later (out of 2,000 beneficiaries contacted).

Source: Look Good Feel Better, UK (2015)

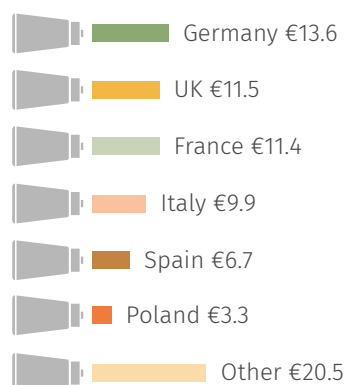
2. Supporting Jobs & Growth in Europe

2.1 The European cosmetics market

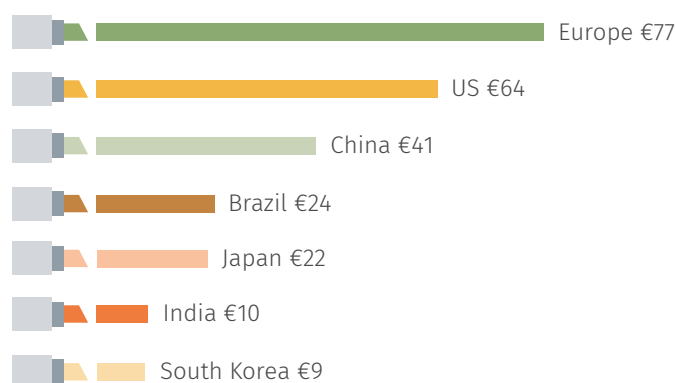
In 2016, the European cosmetics market was valued at **€77 billion**, making Europe the largest cosmetics market in the world. Among the European countries, **Germany has the largest market for cosmetic products, valued at €13 billion in 2016**, followed by UK (€11.5 billion), France (€11.4 billion), Italy (€9.9 billion) and Spain (€6.7 billion). In terms of products, **skin care and toiletries occupy the largest share of the**

European market, with retail sales for both product groups worth over €19 billion in 2016 (see graph below). Retail sales of haircare products totalled €14.7 billion in 2016, while sales of fragrances/perfumes and decorative cosmetics totalled €12.1 billion and €11 billion respectively.

EUROPEAN MARKET FOR COSMETIC PRODUCTS
(RSP BASIS, € BILLION)



GLOBAL MARKET FOR COSMETICS PRODUCTS
(€ BILLION) (COSMETICS EUROPE, 2015)



EUROPEAN MARKET BY PRODUCT
CATEGORY (RSP BASIS, € BILLION)
(COSMETICS EUROPE, 2016)



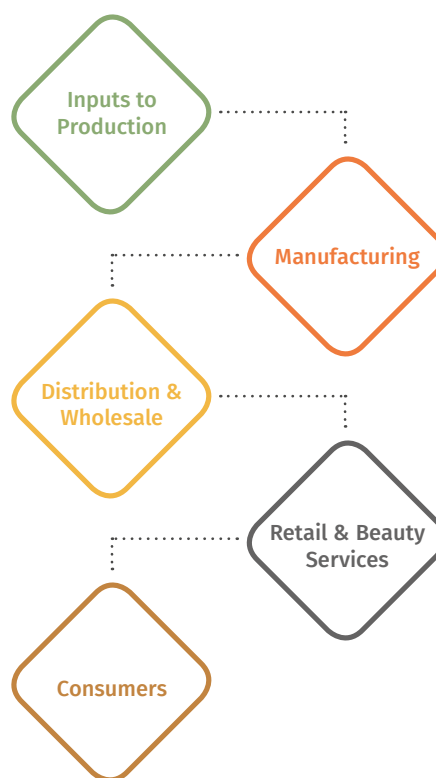


EUROPE IS THE GLOBAL
FLAGSHIP PRODUCER OF
COSMETIC PRODUCTS

2.2 The cosmetics value chain

The industry value chain can be segmented into five main stages. As shown in the figure, the first stage in the value chain comprises the companies that provide the raw materials required to make cosmetic products. These include companies manufacturing the ingredients used in the production of cosmetics, but also companies developing and manufacturing packaging components and R&D activities (e.g. market research, product formulation and industrial design). The next step of the value chain (manufacturing) is made up of manufacturers. Socio-economic benefits are created through production, but also through supporting activities (e.g. marketing and advertising, IT, accounting and legal services and business administration). The finished cosmetic product may then pass through distribution and/or wholesale. The final stage of the value chain involves the retail sale and purchase of cosmetics. End-consumers may buy cosmetic products through a range of channels, including grocery stores supermarkets, department stores, pharmacies, online stores and beauty salons. Beauty salons (e.g. nail salons, hair salons, spas, etc.) also purchase, use and sell cosmetic products.

THE COSMETICS VALUE CHAIN



2.3 Enterprises in the cosmetics value chain

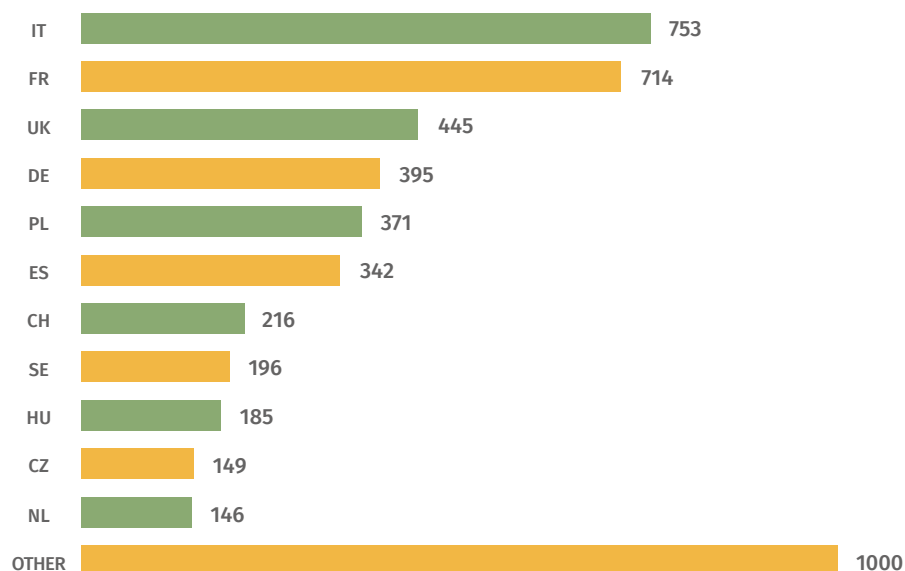
There are more than 5,000 enterprises manufacturing cosmetics in Europe. While the vast majority of companies in the cosmetics industry are SMEs, the strength of the sector lies in the co-existence of both large and small companies.

In some countries (e.g. France) SMEs make up more than 80% of all cosmetic manufacturers (FEBEA, 2015b). According to data provided by Euromonitor International (2016), there were **4,900 SMEs manufacturing cosmetic products in Europe in 2016**. Many SMEs in the cosmetics industry employ less than 10 workers and thus qualify as a micro-enterprise. While specific data on the number of micro-businesses manufacturing cosmetics is not available, it has been estimated that there are 1,855 firms with fewer than 10 employees in France and Italy alone (data from 2004; European Commission, 2013).

SMEs ARE KEY DRIVERS OF INNOVATION AND ECONOMIC GROWTH.

THERE ARE MORE THAN 5,000 ENTERPRISES MANUFACTURING COSMETICS IN EUROPE. THE VAST MAJORITY ARE SMEs.

NUMBER OF SMEs MANUFACTURING COSMETICS BY COUNTRY IN 2014 (EUROMONITOR, 2016)



In terms of inputs to production, there are **over 100 companies manufacturing cosmetic ingredients** in Europe (EFFCI, 2015) and it is likely that a large number of enterprises are also involved in the manufacture of cosmetic packaging and packaging components. Indeed, it is estimated that **in 2009 the European cosmetics industry consumed \$5,506 million (€4,317 million) of packaging**, which gives an indication of the scale of this industry in Europe (Pira International, as reported by Statistica, 2015).

In 2012, there were approximately **20,100 enterprises involved in the wholesale of cosmetics** in Europe, the majority of which were located in Italy (18%), Spain (14%) and France (11%) (Eurostat, 2012).

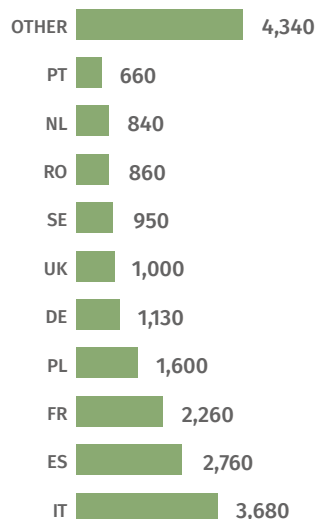
Cosmetics are distributed to consumers through a wide variety of different channels, including supermarkets, pharmacy and drug stores, department stores, direct selling, speciality stores, beauty salons and, increasingly, internet retailing. In 2012, there were approximately **45,700 specialist stores retailing cosmetic products** in Europe (Eurostat, 2012). Our research indicates that specialist stores make up less than 40% of total cosmetic sales; which implies that the total number of retail outlets selling cosmetic products is likely to be considerably higher than 45,700.

COSMETIC SALES BY DISTRIBUTION CHANNEL (BY VALUE OF SALES)

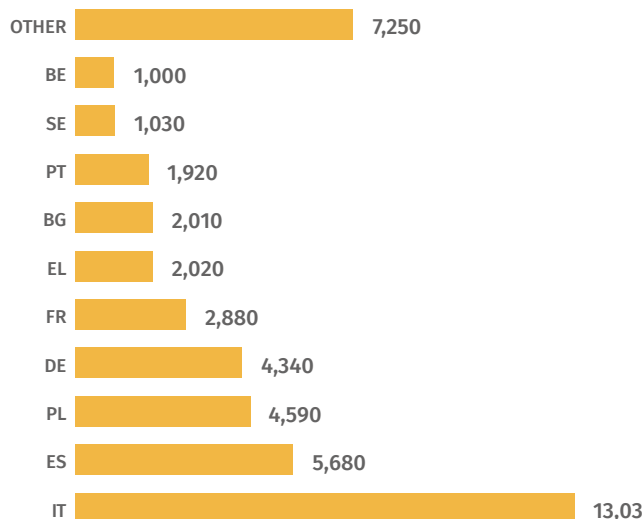
Supermarket / hypermarket	<90%
Pharmacy / drug store	<70%
Department store	<15%
Direct selling	<10%
Specialist cosmetics store / perfumery	<40%
Hairdressing and beauty salon	<20%
Online	<2%

Based on a review of data from publically available sources & consultation. The uncertainty in these figures represents variations between countries, companies and products.

NUMBER OF ENTERPRISES INVOLVED IN THE WHOLESALE OF COSMETICS BY COUNTRY (EUROSTAT, 2012)



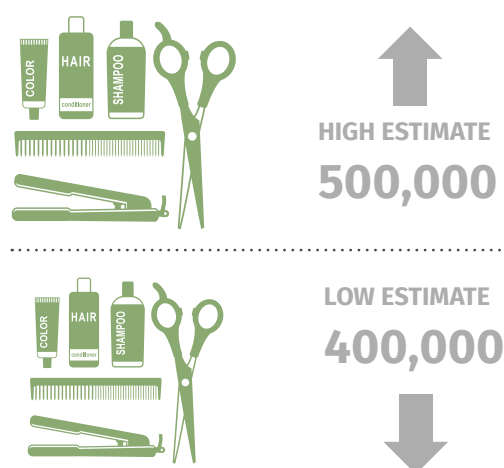
NUMBER OF ENTERPRISES INVOLVED IN THE RETAIL SALE OF COSMETICS BY COUNTRY (SPECIALISED STORES ONLY) (EUROSTAT, 2012)



The beauty services sector (which includes hairdressing salons and other personal grooming establishments) relies heavily on the use of cosmetic products and a growing number of enterprises in the sector actively sell cosmetic products. Data are not available on the total number of beauty salons using and selling cosmetics in Europe, although information from five countries (France, Germany, Italy, Spain and the UK) indicates that there are **at least 77,750 beauty salons** (Clarke, 2009).

It has been estimated that there are **between 400,000 and 500,000 hairdressing establishments** in the EU, with the largest number in Italy (73,000 in 2012), Germany and France (over 65,000 businesses per country) (ICF GHK, 2014). The sector is also sizable in terms of number of businesses in the Czech Republic, Poland, Spain and the UK (more than 35,000 businesses respectively). **The hairdressing sector is dominated by SMEs and micro-enterprises**, with the average businesses consisting of five hairdressers (often one owner operator and four staff members). ICF GHK (2014) report that, in recent years, the share of micro-enterprises in the sector (ranging from companies run by owner operators to those having up to two employees) and franchised salons has grown at the expense of what can be considered 'small' businesses (between three and ten employees). This can, in part, be attributed to policies to support self-employment.

NUMBER OF HAIRDRESSING ESTABLISHMENTS IN THE EU (ICF GHK, 2014)



The number of European spas is also growing and may be a source of inward investment to Europe in the form of "wellness tourism".

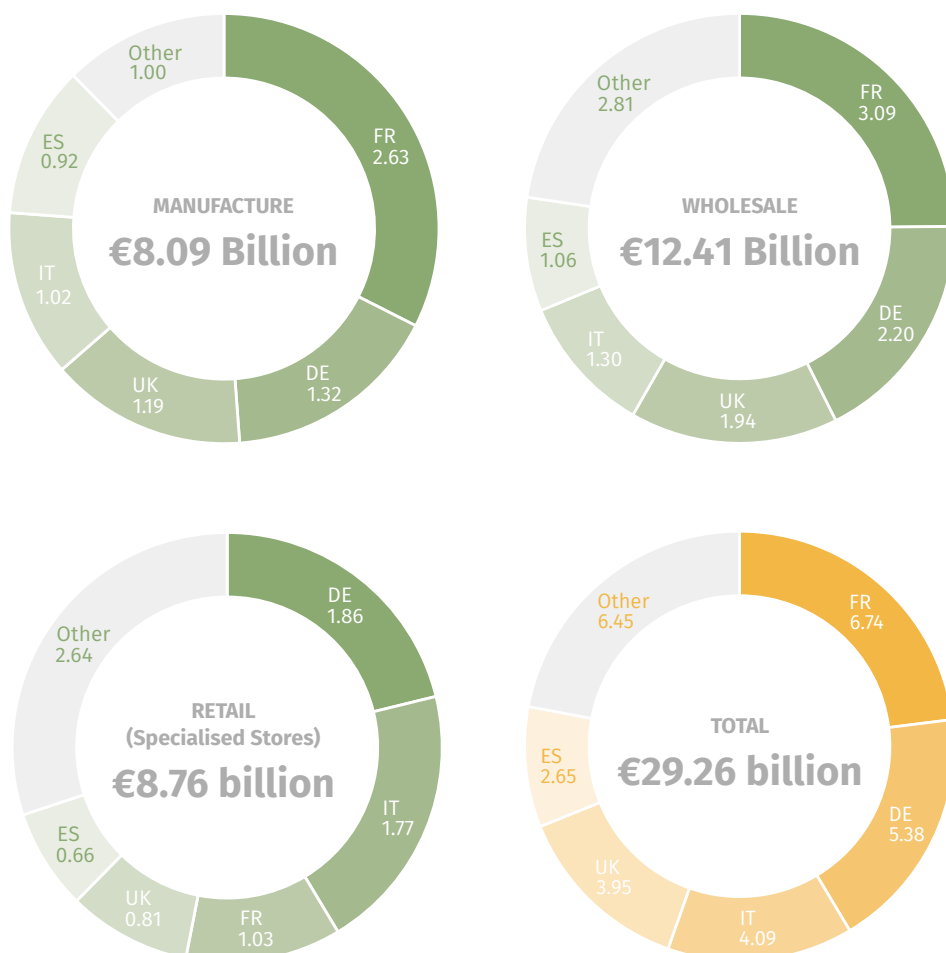
Although specific data are not available, numerous other types of enterprises are also involved indirectly in the cosmetics value chain. For example, distribution is a key business area in the cosmetics value chain. Many enterprises are also likely to be involved in advertising and the provision of business services (IT, legal services, accountancy, utilities, property, etc.).

2.4 Contribution to Europe's GDP (GVA)

The manufacture of cosmetic products contributes (directly) around **€8.09 billion in GVA** to the European economy each year. In terms of indirect impacts, the wholesale and retail sale of cosmetics also contribute to Europe's GDP. Data from Eurostat indicates that, in 2012/13, these activities contributed at least **€21.18 billion in GVA** to the European economy. Note that data are missing for some countries (namely the Czech Republic, Ireland, the Netherlands and Switzerland) and that other indirect impacts along the supply chain have not been included in this estimate. A total of **€29.26 billion** is therefore likely to represent an underestimate of the total GVA contributed by the European cosmetics industry.

THE COSMETICS INDUSTRY
CONTRIBUTES TO THE
FUTURE PROSPERITY
OF EUROPE.

GVA IN THE COSMETICS VALUE CHAIN (€ BILLION, 2012/13) (EUROSTAT, 2012 & 2013)



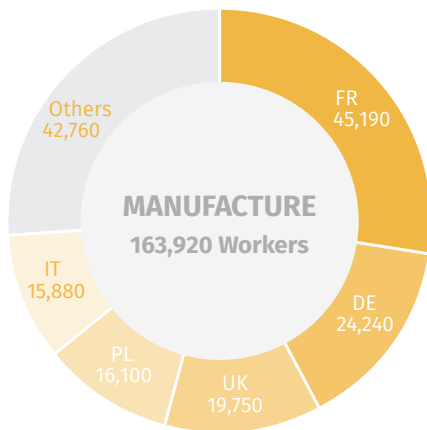
2.5 Job creation

Including direct, indirect and induced employment, the European cosmetics industry is estimated to support **around 2 million jobs**.

Direct employment

Data from Eurostat for 2012/13 indicates that more than 119,500 people (FTE units) are employed directly in the manufacture of cosmetic products (Eurostat 2012 & 2013). France, Germany, the UK, Poland and Italy account for the majority (78%) of these jobs. Taking into account growth in the sector in recent years and accounting for data gaps in the Eurostat database, Cosmetics Europe calculate that **total employment in the manufacture of cosmetic products in 2016 is 152,000 workers**.

NUMBER OF WORKERS EMPLOYED IN THE MANUFACTURE OF COSMETIC PRODUCTS IN EUROPE IN 2015 (COSMETICS EUROPE, 2016)

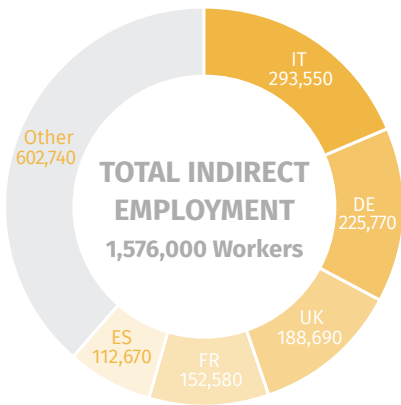


Indirect employment

In 2012/13, at least 372,600 people were employed indirectly (downstream) in the European cosmetics value chain, where this includes employment in the wholesale and retail sale of cosmetic products in specialist stores (Eurostat 2012 & 2013). As explained previously, specialist stores only make up a small proportion of total cosmetics sales and so the total number of people involved in the retail sale of cosmetic products is likely to be considerably higher.

THE COSMETICS INDUSTRY
GENERATES MILLIONS OF JOBS
THROUGHOUT THE EUROPEAN
SUPPLY CHAIN.

TOTAL INDIRECT (DOWNSTREAM) EMPLOYMENT IN THE COSMETICS VALUE CHAIN IN 2016 (COSMETICS EUROPE, 2016)



Taking into account recent growth in the European cosmetics industry and employment relating to the distribution of cosmetic products and beauty services, Cosmetics Europe calculate that **total indirect employment in the European cosmetics industry was ~1.6 million workers in 2016**. This includes around 1 million individuals that are active in the hairdressing sector in the EU (ICF GHK, 2014).



It has been estimated that hairdressing makes up, on average, about 0.5% of total employment in the Member States and that Germany has the largest number of workers in the hairdressing sector (~274,000) (ICF GHK, 2014).

Note that, in reality, there are likely to be more than 1.6 million people employed indirectly in the European cosmetics industry as this figure excludes employment 'upstream' in the cosmetics supply chain (e.g. in the manufacture of cosmetic ingredients, and provision of business services, etc.). Although reliable data on the total number of people employed upstream in the cosmetics value chain does not exist, the International Fragrance Association (IFRA) has estimated that there may be in the region of 7,000 people employed directly in the European fragrance industry. Fragrances are an important ingredient used in many cosmetic products, but also find use in some household and industrial products; thus, only a proportion of these jobs can be attributed to the production of cosmetic fragrances (IFRA, 2013). It has been estimated that around 60% to 70% of the world's fully qualified perfumers reside in Europe (up to 540 to 630 people) (IFRA, 2013).

Induced employment

Our research indicates that an induced employment multiplier of 0.2 to 0.3 is appropriate for the cosmetics industry. An employment multiplier of 0.2 simply means that for every 10 jobs created directly or indirectly in the supply chain for cosmetic products, a further two jobs are created through induced employment effects. In total, it is estimated that **347,900 to 521,800 jobs are created as a result of induced employment effects in the European cosmetics industry.**

INDUCED EMPLOYMENT IN THE EUROPEAN COSMETICS INDUSTRY, NUMBER OF WORKERS (2014) (OWN ESTIMATE)



2.6 Wages and salaries

Direct employment

Nearly **€4 billion per year** is paid in wages and salaries to workers employed directly in the manufacture of cosmetic products (based on data for 2012/13), where this excludes wages and salaries paid to workers in the Czech Republic, Ireland, Malta, Slovenia, Slovakia and Switzerland for which comparable data do not exist.

Indirect employment

Data on the total wages and salaries paid to workers employed indirectly by the cosmetics industry are only available for the wholesale and retail sale of cosmetics in specialised stores and are not available for other sources of indirect employment up and down the supply chain. The data shown in the graphs to the right therefore underestimate the total wages and salaries paid. Nevertheless, this conservative data shows that, as a minimum, **at least €9.7 billion is paid in wages and salaries** to workers employed indirectly in the supply chain for cosmetics.

TOTAL WAGES AND SALARIES PAID TO EMPLOYEES
(€ MILLION, 2012/13) (EUROSTAT, 2012 & 2013)



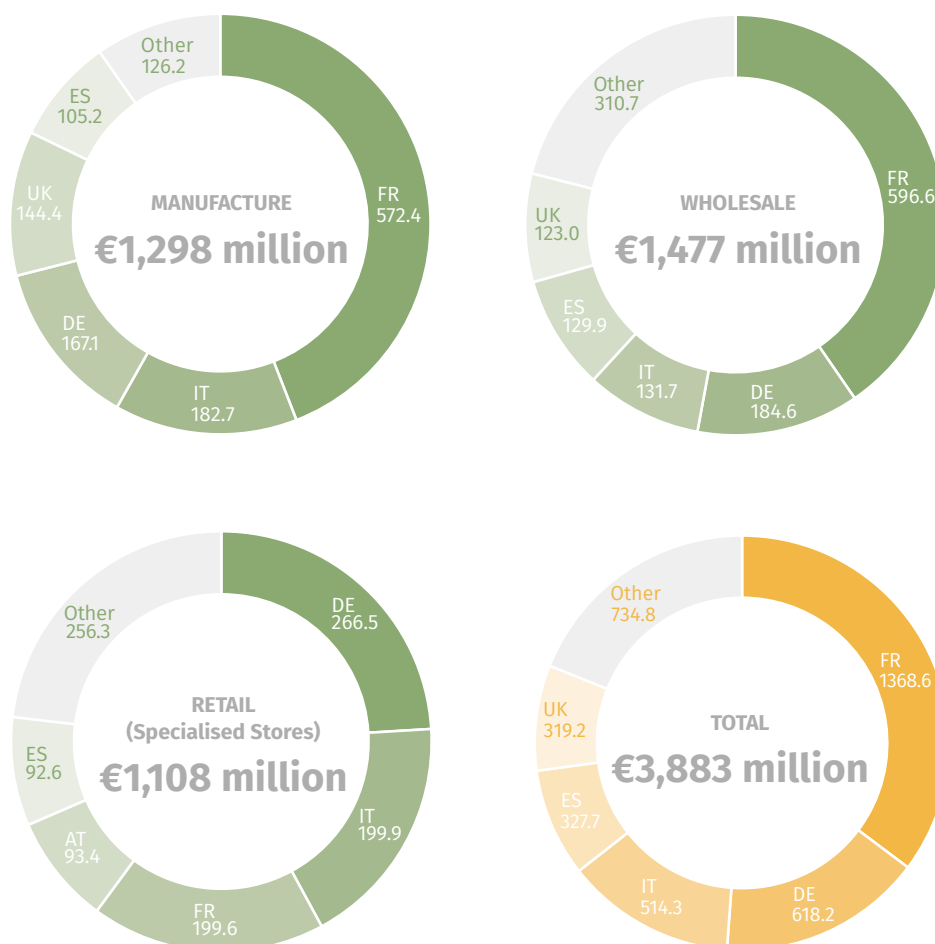
2.7 Employment taxes

Direct & indirect employment taxes

Data on the total social security contributions made by workers in the cosmetics industry are only available for the manufacture, wholesale and retail sale of cosmetics (in specialised stores). As for the data on total wages and salaries, this represents an underestimate of the total employment taxes paid by workers employed in the cosmetics industry, but provides a useful baseline, or minimum value, of the total social security contributions paid.

As indicated in the graphs below, **at least €3.8 billion in social security contributions** was made by workers employed in the cosmetics industry in 2012/13. Of this, approximately €1.3 billion was paid by workers employed directly in the manufacture of cosmetic products.

SOCIAL SECURITY CONTRIBUTIONS MADE BY WORKERS IN THE COSMETICS INDUSTRY
(€ MILLION, 2012/13) (EUROSTAT, 2012 & 2013)



2.8 Responsible employer

Overall, the European cosmetics industry employs slightly more female workers (56%) than males (44%), although there are variations between countries. Norway employs the highest number of female workers (>90% of workers are female), while Ireland employs the highest number of males (58% of workers are male).

Data on the age distribution of workers in the cosmetics industry is not available for all countries. Nevertheless, information from consultation indicates that between 10% and 30% of workers (14,100 to 42,300 people) are under the age of 29, 50% to 65% of workers (70,500 to 91,650 people) are between the ages of 30 and 49 and around 10% to 30% of workers (14,100 to 42,300 people) are aged 50+.

Companies in the cosmetics industry are increasingly taking steps to increase diversity and equality in the workplace. For example, by increasing the diversity of leadership teams through increasing the number of female executives on management boards and by hiring people with disabilities.

GENDER DISTRIBUTION OF WORKERS IN THE EUROPEAN COSMETICS INDUSTRY (COSMETICS EUROPE, 2015)



Besides paying employee's wages and salaries, most large companies provide additional in-house benefits to their workers. For example, healthcare benefits (e.g. health check-ups, smoking-cessation programmes, influenza vaccinations, fitness programmes), maternity/paternity leave and insurance guaranteeing a payment in the event of death or disability. Companies in the cosmetics industry also invest in training to develop the skills of their employees and provide a large number of internships, apprenticeships, work experience placements and graduate schemes. As an example, a large company employing several thousand workers in Europe has indicated that around 10% of its employees have received in-house or external training.

NUMBER OF WORKERS EMPLOYED IN THE MANUFACTURE OF COSMETICS BY AGE GROUP (EUROPE 30)

		Low estimate	High estimate
<29 years	% workforce	10%	30%
	Estimated no. workers	14,100	42,300
30 to 49 years	% workforce	50%	65%
	Estimated no. workers	70,500	91,650
>50 years	% workforce	10%	30%
	Estimated no. workers	14,100	42,300

Own estimate based on data from consultation. Total number of workers employed in the manufacture of cosmetics in Europe: n = 141,000

3. Advancing Innovation & Science in Research

3.1 R&D in the European cosmetics industry

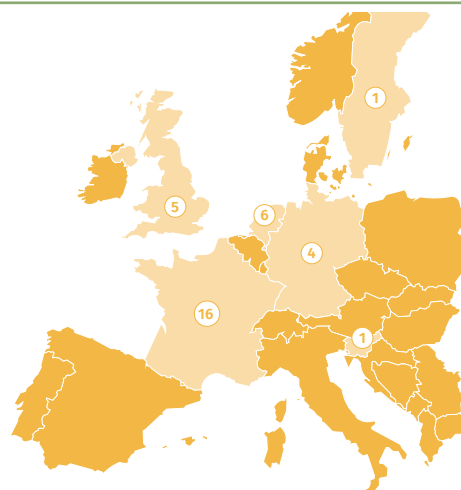
The European cosmetics industry plays a leading role in product development and is a fast-paced and highly innovative sector.

THE COSMETICS INDUSTRY IS A SCIENCE-DRIVEN, FAST-PACED AND HIGHLY INNOVATIVE SECTOR.

Information from consultation indicates that **there are at least 33 scientific innovation facilities in Europe** carrying out research in relation to cosmetics. This includes partial data for France, the Netherlands, Germany, the UK, Slovenia and Sweden, and is likely to be a considerable underestimate of the total number of such facilities. Large companies operating in the European cosmetics industry often have multiple different research centres focusing, for example, on product development, market research and regulatory compliance. Information from consultation indicates that **there are at least 11 research facilities in Europe focused on market research for the cosmetics industry**, where this includes (some) facilities in the Netherlands, Germany and the UK (again, the total number of such facilities in Europe is likely to be considerably more).

THERE ARE AT LEAST 33 SCIENTIFIC INNOVATION FACILITIES IN EUROPE CARRYING OUT RESEARCH IN RELATION TO COSMETICS.

NUMBER AND LOCATION OF SCIENTIFIC INNOVATION FACILITIES IN EUROPE CARRYING OUT RESEARCH IN RELATION TO COSMETICS (PARTIAL DATA BASED ON CONSULTATION)



NUMBER AND LOCATION OF RESEARCH FACILITIES IN EUROPE CARRYING OUT MARKET RESEARCH IN RELATION TO COSMETICS (PARTIAL DATA BASED ON CONSULTATION)



On average, large companies in the cosmetics industry have a product portfolio of around 10,000 different cosmetic products and reformulate around 25% to 30% of their products every year (European Commission, 2013). Out of these reformulations, about 10% depend on ingredients that are new to the market (i.e. not used in any other sector), or are new to the cosmetics industry (i.e. already used in other sectors, but not previously used for cosmetics). Large companies introduce around 80 new ingredients to their product portfolio each year, while SMEs introduce on average 22. SMEs are thought to have around 40 to 160 products in their product portfolio.

A review of companies' annual reports and information from consultation indicates that most large enterprises manufacturing cosmetics in Europe spend between 1.5% and 4.5% of their annual turnover (sales) on R&D; although some companies

**TOTAL EXPENDITURE ON R&D
IN EUROPE IN 2014**
€1.27 BILLION
(ESTIMATED)

spend considerably more. Assuming that companies in the cosmetics industry spend just 3% of their annual turnover on R&D, **total expenditure on R&D in Europe would have totalled €1.27 billion in 2014.** It should be noted that because the business model for carrying out research frequently involves a partnership (e.g. between a cosmetics manufacturer and a supplier and/or research institute), this figure is likely to be an underestimate.

**TOTAL PATENTS FILED BY EUROPEAN
COSMETICS INDUSTRY IN 2011**
6,000
(EUROPEAN COMMISSION, 2013)

Patent activity is a useful indicator for innovation and, **in 2011, approximately 6,000 patents were filed by the European cosmetics industry** (European Commission, 2013). In 2009, over 2,600 patents were awarded to the EU cosmetics industry, an estimated 10% of all patents granted in the EU (Euromonitor International, as reported by Cosmetics Europe, 2010).



**19% of all
beauty
innovation**

In 2014/15, the most active area for innovation in the cosmetics sector (globally) was in shampoos, where 19% of all beauty innovation activity was focused.
(Thompson Reuters, 2015).

In Europe, cosmetic ingredients are an important focus of patent activity, although other aspects, such as product presentation and product application (brushes, forms of delivery, etc.) are also important sources of innovation. As regards the range of materials and technologies involved in patent applications for the cosmetics sector, peptides play an important role, as does biochemistry and, more recently, nanotechnology (European Commission, 2013). It can take over 5 years of research and formulation to bring a new product to the market.



Finding alternatives to animal testing

For more than 20 years, the cosmetics industry's best scientists, and its strategic partners, have been dedicated to supporting the development, validation and/or regulatory acceptance of alternative test methods and approaches. With a total contribution of €50 million (€25 million from the European Union's 7th Framework Programme (FP7) and €25 million funded by Cosmetics Europe), SEURAT-1 is the single largest Private-Public Partnership initiative in the field and managed to provide sufficient ground for setting the strategy of next programmes and strategic collaboration on alternatives for systemic toxicity.

However, the development, validation and acceptance of alternative methods by regulatory bodies can only be considered as a constant, long-term effort in this challenging journey towards animal-free testing. The industry is committed to strengthen collaboration in this area of research with the Commission and other partners under Horizon 2020, with the Long Range Science Strategy Programme and other related initiatives.

Several companies in the cosmetics industry are working with the European Partnership for Alternative Approaches to Animal Testing (EPAA) (Cozigou, 2015), which is focused on international cooperation toward alternative methods.

3.2 Working with the scientific community

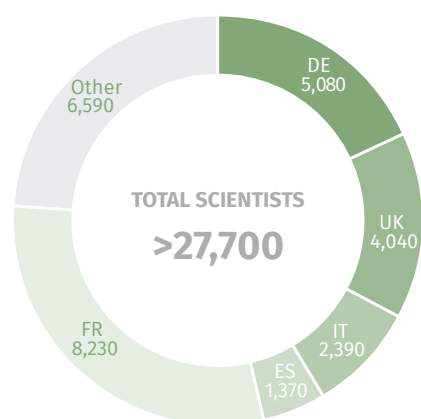
In 2016, over 27,700 scientists were employed in the European cosmetics sector, covering a diverse range of scientific disciplines - physics, microbiology, biology, toxicology, physiology, rheology, nanoscience, analytical chemistry and genetics to name a few. By attracting and training workers with specialist skills, the cosmetics industry increases the pool of talent and skilled labour for other science-led industries - such as pharmaceuticals.

**>27,700 SCIENTISTS
ARE EMPLOYED IN THE EUROPEAN
COSMETICS INDUSTRY
(COSMETICS EUROPE, 2015)**

Companies operating in the cosmetics industry frequently collaborate with other organisations when they undertake research, where this includes European universities, scientific research institutes, NGOs and start-ups. Research projects in the cosmetics industry may have a variety of partner configurations (private/private, private/public, or public/public) (Bretonès & Scheel, 2011).

Indeed, information from consultation indicates that cosmetic companies may work with several different organisations simultaneously and that many of their R&D projects are undertaken with supplier input. Such relationships allow companies to have access to (and share) technologies and knowhow that they do not have in-house and provide participants with a competitive advantage.

TOTAL NUMBER OF SCIENTISTS EMPLOYED IN THE EUROPEAN COSMETICS INDUSTRY IN 2016
(COSMETICS EUROPE, 2016)



SOCIETY OF COSMETIC SCIENTISTS

The Society of Cosmetic Scientists provides professionals working in the cosmetics industry with the opportunity to disseminate their research and exchange knowledge pertinent to cosmetics and related sciences. It does this through activities including publications, educational programmes and scientific meetings. Through this type of activity, the cosmetics industry creates 'knowledge spill-over effects' which benefit consumers and other sectors of the economy.

Source: SCS (2015)



COSMETIC VALLEY (FRANCE)

"Cosmetic Valley" is a world-leading technopol, situated across three regions of Northern France: Centre, Ile-de-France and Upper Normandy. Officially designated a "competitiveness cluster" in 2005, it is the most important French business cluster specialized in the production of consumer goods. In April 2013, Cosmetic Valley comprised 300 member companies, of which 78% were SMEs. It had an annual turnover of €10 billion and created approximately 36,600 jobs. By 2013, the Cluster had officially backed more than 100 R&D projects, worth €200 million. Eight universities, 200 State laboratories and 8,600 researchers (public and private) participate in Cosmetic Valley.

Source: Cosmetic Valley (2015)

3.3 New opportunities in the digital economy

The digital economy is developing rapidly and is the single most important driver of European innovation, competitiveness and growth (European Commission, 2015). Although e-commerce only accounts for a relatively small proportion of overall cosmetics sales, the quantity, value and overall proportion of cosmetic products sold online in Europe is expected to grow substantially over the coming years. In the Netherlands, for example, it is anticipated that the online sales share of beauty and personal care products will grow from around 2% in 2012 to 5% by 2020 (PWC, 2013).

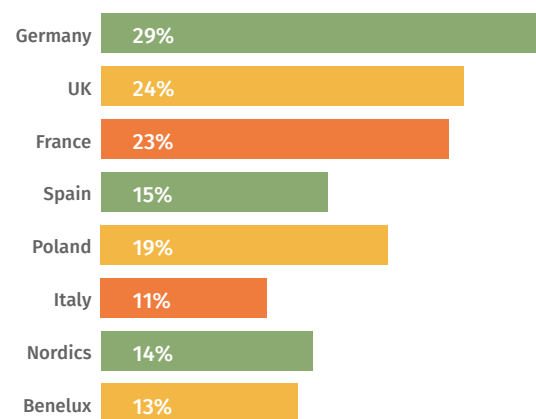
The cosmetics industry is at the forefront of stimulating new online retail formats and the digital economy will increasingly impact the way the industry communicates with people and distributes its products. Embracing new online retail formats will be essential, alongside maintaining traditional distribution channels, such as selective distribution and in-store product experiences. New technologies may bring with them new modes of diagnosis, more effective methods of delivery or production, and improved product functionality.

The cosmetics industry has developed a number of new initiatives to encourage consumers to shop online, including flexible delivery options and editorial content and advice lines that encourage browsing. One company has created an app that allows internet users to try cosmetic products via the camera on their phone, without using any make-up samples. Consumers are subsequently able to purchase the cosmetics online directly via the app. The innovation generated by online and multi-channel retailers is likely to make a significant contribution to

the competitiveness of the European economy, for example, by spurring innovation in business models and enabling greater access to international markets.

Beauty bloggers and vloggers are also changing the face of the cosmetics industry, with some reportedly making successful careers for themselves by posting commentaries and tutorials on platforms such as YouTube (The Guardian, 2014).

PROPORTION OF SHOPPERS THAT BOUGHT COSMETICS, SKINCARE AND/OR HAIRCARE PRODUCTS ONLINE IN 2013 (POSTNORD, 2014)



4. Contributing to European Economic Welfare

4.1 Leveraging EU internal market

Trade in cosmetic products and ingredients within the EU30 exceeded €33 billion in 2014. France and Germany were the main exporters, exporting €7.06 billion and €5.59 billion respectively to the EU30 in 2014. Germany was the main destination for cosmetic products and ingredients made in France, while the UK was the main destination for cosmetic products and ingredients made in Germany. The UK, Ireland and Italy are also key exporters of cosmetic products and ingredients, exporting €3.25 billion, €3.18 billion and €2.18 billion respectively to the EU30 in 2014.

**TRADE IN COSMETIC
PRODUCTS AND INGREDIENTS
WITHIN THE EU30 EXCEEDED
€33 BILLION IN 2014**
(UN COMTRADE DATABASE, 2014)

SUM OF TRADE VALUE IN 2014 (€ BILLION) (UN COMTRADE DATABASE, 2014)

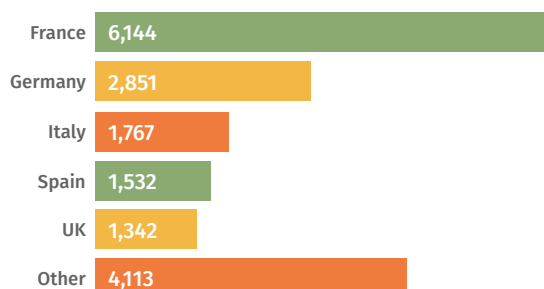
	Exported to						TOTAL
	France	Germany	UK	Ireland	Italy	Other (EU30)	
France		1.80	1.11	0.04	0.93	3.18	7.06
Germany	0.68		0.71	0.04	0.45	3.71	5.59
UK	0.32	0.62		0.74	0.13	1.43	3.25
Ireland	0.45	0.49	0.70		0.21	1.34	3.18
Italy	0.40	0.44	0.28	0.02		1.05	2.18
Other (EU30)	1.36	2.19	1.28	0.08	0.75		11.82
Total	3.22	5.53	4.08	0.92	2.46	16.87	33.09

4.2 Exports from the EU

In 2016, exports of cosmetic products from Europe (i.e. extra EU-28) totalled €17.7 billion. France and Germany were Europe's main exporters, exporting more than €9 billion between them and accounting for 51% of total global exports from Europe.

VALUE OF COSMETIC EXPORTS FROM EUROPE (EU28), BY EXPORT COUNTRY (€ BILLION)
(COSMETICS EUROPE, 2016)

**EXPORTS OF COSMETIC PRODUCTS
FROM EUROPE (I.E. EXTRA-EU-28)
WERE VALUED AT €17.7 BILLION IN
2016 (COSMETICS EUROPE, 2016)**



4.3 Development of global intangible assets

Intangible assets are defined as identifiable non-monetary assets that cannot be seen, touched or physically measured. Examples of intangible assets include patents, trademarks and the value of a company's brand name.

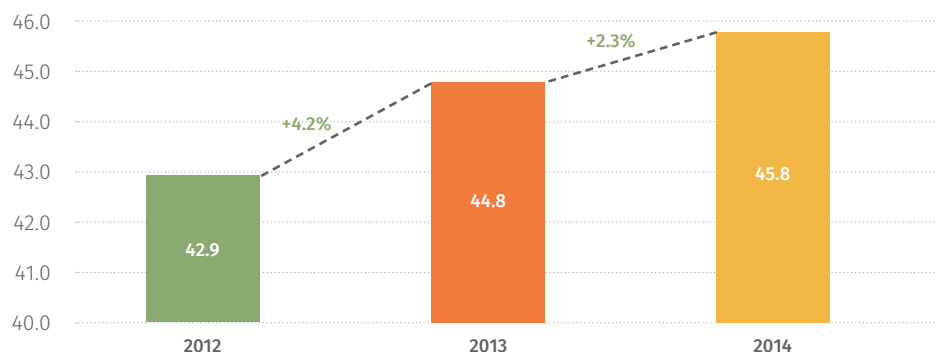
The total value of Europe's leading cosmetics brands is estimated to exceed €45 billion and has grown

by 6.6% between 2012 and 2014. Of the world's 50 leading cosmetic brands, 26 are domiciled in Europe (BrandFinance, 2013). France is an important player in terms of global cosmetic brands, with brands worth approximately €28 billion in 2014. Cosmetic brands in the UK and Germany were worth an estimated €9.3 billion and €6.0 billion respectively in 2014.

BRAND VALUE OF EUROPE'S LEADING COSMETIC BRANDS, BY COUNTRY 2014 (€ BILLION) (BRANDFINANCE 2014)



BRAND VALUE OF EUROPE'S LEADING COSMETIC BRANDS, 2012 TO 2014 (€ BILLION) (BRANDFINANCE, 2013 & 2014)



The data presented in the figures on this page are based on an analysis by BrandFinance (2013 & 2014) of the world's 50 leading cosmetic brands and thus represents an underestimate of the total value of cosmetic brands in Europe, as the value of smaller brands has been excluded. Discrepancies between the values shown in the graph are due to rounding.

4.4 Support for world-leading marketing services cluster

A review of companies' annual reports and information from consultation indicates that Europe's largest cosmetic companies spend approximately 7% to 23% of their annual turnover (sales) on marketing. Taking this data into account, together with data on the total value of cosmetics produced in Europe, it is estimated that **the European cosmetics industry invested between €2.92 billion and €10.29 billion in marketing in 2014**. This equates to between 2% and 7% of total turnover in Europe's advertising sector.

The industry supports responsible marketing practices and proactively drives self-regulatory initiatives in advertising. Cosmetics Europe launched a 'Charter and Guiding Principles on responsible advertising and marketing communication' in 2012 in response to the accepted best practice model for effective advertising self-regulation. This Charter sets out the benchmark for the responsible advertising of cosmetic products in Europe. The industry has also undergone its **first independent audit conducted by the European Advertising Standards Alliance (EASA)**.

A total of 1,861 advertisements were reviewed, including 577 television and 1,284 print advertisements aired/published in six representative markets over a three month period – September 2014, March and June 2015. It showed that 91% of the advertisements of cosmetic products were in compliance with all relevant advertising codes/laws.

TOTAL EXPENDITURE ON MARKETING FOR COSMETICS IN THE EU30 IN 2014 (€ BILLION) (OWN ESTIMATE)



4.5 Inward investment by non-EU multinational corporations

Inward investment plays a crucial role in enhancing the competitiveness of Europe within the global economy and leads to the creation of jobs for European workers, increased tax revenues and the inward flow of new technologies and skills. For example, in 2009, a company from outside of Europe opened a new cosmetics production plant in Central Poland. The plant, which is estimated to have cost

US\$50 million (€39 million) to build, was anticipated to offer employment to over 300 workers. Cosmetics manufactured at the site are exported to markets in Europe, the Middle East and Africa.

5. Environmental sustainability

5.1 Introduction

The cosmetics industry places a strong emphasis on improving the environmental sustainability of its activities and products and actively supports a wide range of voluntary and self-regulatory initiatives towards fulfilling its mission. The industry's

commitments and activities enable consumers to benefit from products with better sustainability profiles and adopt more sustainable consumption habits.



This chapter is only illustrative of some of the industry's commitments and aims at providing a non-exhaustive overview of the implementation of the sustainability principles by our sector. Further information on

Cosmetics Europe's individual member companies' and associations' sustainability actions can be found online at: www.cosmeticseurope.eu/how-we-take-action/driving-sustainable-development

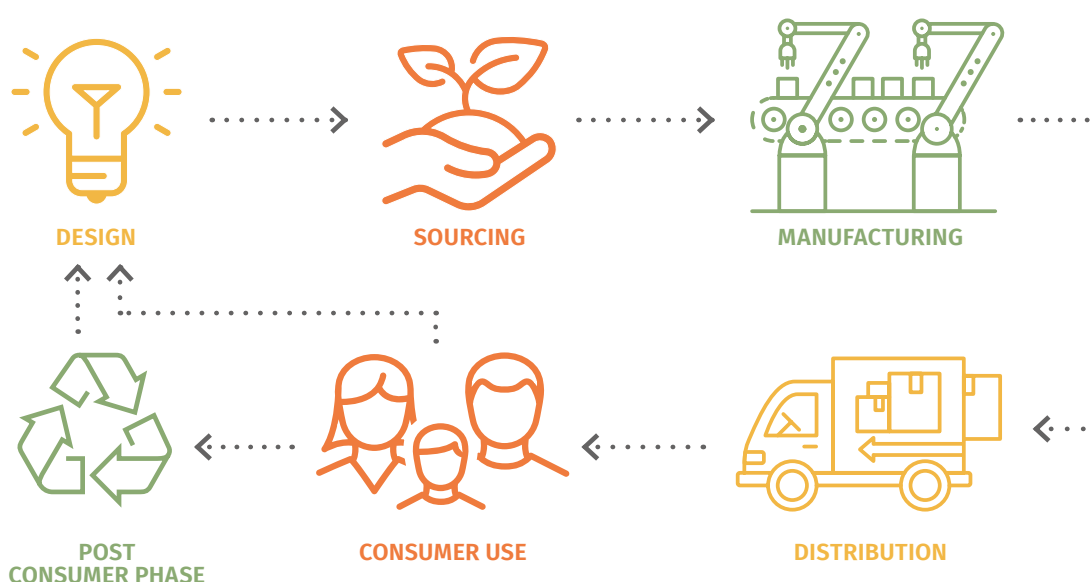
5.2 Sustainable design & life cycle assessment

Frequently, it is noted that a significant part of the environmental impact of a product is determined at the design stage. While the exact proportion will vary according to the specific product in question, this highlights the importance of considering sustainability during the design process.

Environmental Life Cycle Assessment (LCA) is a structured, internationally standardised framework¹ for quantifying the environmental impacts (resource consumption and emissions) associated with a good

or service throughout its lifecycle - from raw material extraction, manufacturing, distribution and use, to final recycling and waste disposal. In the cosmetics industry, LCA and other life cycle thinking approaches (such as Environmental-, Carbon- and Water-Footprinting) have been used to identify and measure environmental impacts and prioritise adaptations to products, processes and packaging to develop cosmetics with improved environmental profiles.

COSMETIC PRODUCT LIFE CYCLE



COMMUNICATING ENVIRONMENTAL PERFORMANCE

A review of the websites and sustainability reporting offered by Cosmetics Europe's membership has found that the vast majority of individual member companies regularly report on their environmental performance and have set themselves specific targets for reducing the lifecycle impacts of their products.

1. Life Cycle Assessment has been internationally standardised by the ISO 14040 standard.

USING LIFECYCLE INFORMATION TO REDUCE THE ENVIRONMENTAL FOOTPRINT OF COSMETIC PRODUCTS

Examples of how companies in the cosmetics sector work to reduce the environmental footprint:

One of Europe's largest cosmetics manufacturers has systematically determined the carbon footprint of **165,000** product formulas. The intelligent linking of databases enables the company's product developers to measure the effects that ingredients will have on the environmental footprint of new products. Using this information, the company promotes the development of formulations with a smaller carbon footprint or with a higher share of readily biodegradable raw materials.

Another of Europe's largest cosmetics manufacturers has screened the biodegradability and water footprint of more than **40,000** of its formulas covering a broad range of product categories (including shampoos, shower gels, skincare products, hair and styling colouring, sun protection products, make-up and fragrances). By the end of 2015, all values for these two indicators were made available to the company's product developers, with an eco-design tool developed to ensure that all new formulas deliver an improved environmental profile while offering the same benefits to the consumer.

One other company developed the Earthwards® framework to address the environmental and social



impacts of its products, and to engage development teams in designing innovative and more sustainable solutions across products' life cycles, from formulation to manufacturing, to product use and end-of-life. The Earthwards® approach targets improvement in seven key areas: materials, packaging, energy, waste, water, social impacts and innovation. If a product achieves at least three significant improvements across the seven impact areas, a Board of internal and external experts determines whether the product warrants Earthwards® recognition. The programme is validated by annual third party audits and NGO and academic Board members. As of spring 2017, 97 products have been awarded with Earthwards® recognition.

A recent study by Cosmetics Europe on the Product Environmental Footprint of Shampoo has identified that only **5% to 20%** of the total lifecycle environmental impact of shampoo is attributable to the raw materials, manufacture, distribution and packaging of shampoo. This means that most of the environmental impacts associated with shampoo are attributable to the use and disposal of the product. **Cosmetics Europe has developed a short video as a first step towards raising public awareness of the environmental footprint of shampoo** (Cosmetics Europe, 2017a). The video shows some of the ways in which companies and consumers can help to reduce their environmental footprint associated with shampoo.



5.3 Sourcing

The cosmetics industry has taken steps to make the sourcing of ingredients and raw materials more sustainable and a number of Cosmetics Europe's individual member companies are actively seeking to improve the sustainability of their inputs to production.

The sustainable sourcing of ingredients

As an example, recognising the importance of sourcing ingredients sustainably, some cosmetics companies have started partnering with their suppliers to improve

the transparency and sustainability of their supply chain. The EcoVadis platform enables companies to assess the environmental and social performance of their global suppliers and several of Cosmetics Europe's members are using this tool to improve the overall sustainability performance along their supply chain.



Palm tree plantations are coming under increasing scrutiny for their effects on the environment, including soil degradation, loss of carbon-sequestering forest and critical habitat for endangered species. Recognising the need to ensure that palm oil and its derivatives are farmed sustainably, without harming the environment or communities, many Cosmetics Europe individual members have **committed to source their palm oil from certified suppliers that have met strict social and environmental sustainability criteria.**

The Roundtable on Sustainable Palm Oil (RSPO) has been operating since 2004 with the aim of transforming the palm oil industry to encourage sustainability. The organisation has set strict environmental and social criteria that companies must comply with in order to claim that they use RSPO certified palm oil. Through the RSPO, cosmetics companies can

either encourage sustainability by purchasing palm oil from RSPO certified suppliers, or they can buy credits from RSPO-certified growers, crushers and independent smallholders via the "book and claim" supply chain model. The credits purchased directly support RSPO growers and farmers; in this way cosmetics companies are able to support sustainable palm oil instantly.

Over half the direct member companies of Cosmetics Europe are members of the RSPO.

Several of Cosmetics Europe's member associations have also taken steps to encourage their members (mostly SMEs) to source palm oil sustainably. The Belgium-Luxembourg Association for Manufacturers and Distributors of Soap, Cosmetics, Detergents, Adhesives and Sealants, Aerosols and Biocides (DETIC), for example, has signed the 2020 Belgian Alliance for Sustainable Palm Oil (BASP) and encourages its members to support the initiative (DETIC, 2003). Members of the BASP pledge to ensure that by 2020 the products they place on the Belgian market contain 100% sustainable palm oil. The alliance supports the RSPO.

Renewable and bio-based packaging materials

In the pursuit of its sustainability mission, one strategy that has been employed by the cosmetics industry is to move to using more renewable and bio-based packaging materials. Some examples are given in the boxes below.

REDUCING DEFORESTATION

Tree-based products, such as wood, paper and cardboard are widely recognised as being some of the most sustainable packaging materials, as they are biodegradable, made from a renewable resource and can easily be recycled.

Cosmetics companies are working with conservation projects and NGOs (such as the Forest Stewardship Council, Programme for the Endorsement of Forest Certification) to tackle the problem of deforestation. As well as helping to preserve biodiversity where natural forest is left intact, maintaining the world's forested areas also enables carbon emissions to be mitigated, thereby reducing the industry's contribution to climate change. Cosmetics companies have introduced a broad range of measures to prevent deforestation, with a focus on protecting trees in 'High Carbon Stock' forests, areas with a 'High Conservation Value' and peatlands. This is important because as well as helping to absorb greenhouse gas emissions, High Conservation Value areas may also be of biological, ecological, social and cultural value and can possess inherent conservation values such as the presence of rare or endemic species, provision of ecosystem services, sacred sites or resources that need to be harvested for local residents.

One of Europe's largest cosmetics companies has partnered with one of its suppliers to introduce a co-cropping model for growing patchouli and cinnamon plants together. Co-cropping (i.e. growing two or more crops on the same land simultaneously) helps to optimise the use of agricultural land and reduces the need for agricultural expansion and deforestation. It also contributes to diversifying farmers' incomes.

Another company launched in 2014 its Responsibility Standard for Forest Materials, as a way to further influence responsible forest management, to help prevent and ultimately eliminate deforestation.

SUSTAINABLE BIO-PLASTICS

Plastic packaging has been developed that is sustainably sourced and made from biomass rather than fossil carbons such as oil. Although bioplastics are not necessarily biodegradable (even if they are sourced and manufactured in a sustainable way), they do reduce reliance on petroleum derivatives which is beneficial for the environment because it helps to reduce greenhouse gas emissions and resource depletion. Bio-derived polyethylene (bio-PE) can be sustainably sourced from sugarcane. It is currently being used in the packaging of some hair care products.

The Bioplastic Feedstock Alliance (BFA) is a science-based stewardship that brings together respected academics, thought leaders from NGOs and partners from the consumer product industries (including cosmetics). The forum aims to increase awareness of the environmental and social performance of potential feedstock sources for bio-based plastics in order to help encourage a more sustainable flow of materials, creating lasting value for present and future generations.

Access to genetic resources and benefit-sharing

Biodiversity conservation is critical to the functioning of the planet and its ecosystems. It is also crucial for the cosmetics industry, as without access to a renewable supply of natural resources, such as plant extracts, the cosmetics industry simply would not exist. In recognition of this, the cosmetics industry has undertaken a range of activities to conserve biodiversity and encourage the sustainable use of biological resources.

Furthermore, Cosmetics Europe, together with three European associations representing cosmetic ingredients suppliers - EFFCI, the European Federation of

Cosmetic Ingredient Suppliers, IFRA, the International Fragrance Association, and UNITIS, the European Organisation of Cosmetic Ingredients Industries and Services - has developed Best Practice for complying with the due diligence obligations under the EU Regulation 511/2014 on access to genetic resources, and the fair and equitable sharing of benefits derived from their utilisation (which implements the Nagoya Protocol on the conservation of biodiversity into EU law). Cosmetics Europe has submitted its Best Practice document to the European Commission and aims to have it recognised as core guidance for the cosmetics sector.

FUNDING ECOLOGICAL SOLUTIONS TO CLIMATE CHANGE

Europe is the world's largest producer of lavender oil for use in cosmetics and perfumery (European Parliament, 2012). However, the lavender industry is under direct threat from climate change and, in recent years, Europe's lavender plantations have been hard hit by heat waves. These heatwaves have promoted leafhopper population growth. These insects carry the stolbur phytoplasma bacterium, which devastates lavender crops. In response to this problem, one large cosmetics company has launched a fund at the CRIEPPAM research centre to finance research into bacterium resistant varieties of lavender. The company has already contributed **€125,000** to the fund in the hope of finding an ecological solution to problems caused by climate change and insects.

PROTECTING THE WORLD'S BEES

The plight of bees is of concern to the cosmetics industry. It is well known that bees are important pollinators and that they play a key role in producing much of the food we eat. However, pollination is also vital for ensuring the continued reproduction of flora, which forms the basis of many cosmetic ingredients. Other bee products, such as honey and wax, are also considered key ingredients in many cosmetic products. Initiatives have been introduced to promote and protect bee colonies, with support from companies in the cosmetics industry. These include, *amongst others*:

- The French National Scientific Research Centre's four-year research programme on the issue of "City Bees and Country Bees", which seeks to understand why bees are currently doing better in urban environments than in rural areas.
- The Brittany Black Bee Conservation Association which ensures the protection of the *Apis mellifera*

mellifera species of black bee on the island of Ouessant in France. To support this programme, a cosmetics company has set up a sustainable development philanthropy programme which helps to fund beekeepers and promote and communicate the importance of their work.

- A member company of UK's Cosmetics, Toiletries and Perfumery Association (CTPA) was founded by a beekeeper; it has a bee protection programme and has also set up The Burt's Bees Greater Good Foundation which gives grants to projects.

Bee products are widely used by small cosmetics manufacturers as the basis for their cosmetic products. As such, it is vitally important that bees are protected. To maintain bee populations, some small cosmetics companies have launched programmes to educate and encourage young beekeepers and to plant wildflower meadows.

5.4 Manufacturing

Cosmetic products manufacturing is increasingly oriented towards efficient technologies which help to reduce energy and water consumption, emissions, and waste. Recyclable packaging has been developed that uses sustainably sourced material, as well as

water-based coatings and vegetable-based inks. The cosmetics industry has taken a broad range of measures to enhance the sustainability of its manufacturing. Some examples are outlined in the sections below.

5.4.1 Energy consumption and reducing emissions



Energy consumption and greenhouse gas emissions are closely linked. By switching energy sources, a company can significantly reduce its emissions. In recent years, many cosmetics manufacturers have increased the proportion of their energy stock that comes from renewable sources, and some plants now use solely renewable energy, either generated on-site, or procured from a utility. Cosmetics companies are investing in solar photovoltaic power, wind power, biomethanisation, biomass and hydropower, as well as reusing steam from wastewater generated during manufacturing. Some are also trying to reduce their emissions through energy efficiency and by using

cleaner low-carbon energy, e.g. generated from natural gas, as opposed to coal.

To reduce their carbon footprint, cosmetics manufacturers have implemented stringent environmental management systems, made manufacturing processes more efficient, and made adaptations to the manufacturing facilities themselves. Some manufacturing sites have achieved excellent energy-efficiency performance through using innovative design, for example, by installing highly effective ventilation systems, ventilated exterior wall cladding, using LED lighting and making the most of natural daylight by installing solar tubes. Some manufacturing facilities have also combined natural climate control systems with heat recovery.

RESPONSIBLE BUILDING DESIGN

As an example, one large cosmetics company has recently completed an environmentally responsible building, on the site of a former scrap yard in France. The newly constructed research and innovation centre implements a variety of solutions to restore green spaces, limit its environmental footprint and fight climate change. For example:

- The design of the building was adapted to take account of the results of a biodiversity assessment;
- The building is powered by geothermal energy, which is a renewable source of energy that generates a relatively small volume of greenhouse gas emissions;
- The building uses an earth-air heat exchanger. This ecological system can naturally preheat or cool ventilated air into the building;
- A green rooftop has been installed. Green roofs come with a lot of advantages, both technical (improved thermal and acoustic insulation) and environmental (CO₂ absorbed by the plants, atmospheric dust retention, mitigation of heat islands and improved biodiversity);
- Rainwater is harvested for use in the building's toilets; and
- Wastewater is sent to phytoremediation tanks. This technique enables the purification of water through plants, which is then reused for watering the green spaces and gardens of the site.



TOWARDS 100% RENEWABLE ENERGY BY 2050

Another example, one large cosmetics company has set a goal to achieve a **20%** reduction of its absolute carbon emissions by 2020 and an **80%** reduction by 2050. The company is also committed to producing or procuring **35%** of its electricity from renewable sources by 2020, with the aspiration to power all of its facilities with renewable energy by 2050.

5.4.2 Manufacturing waste

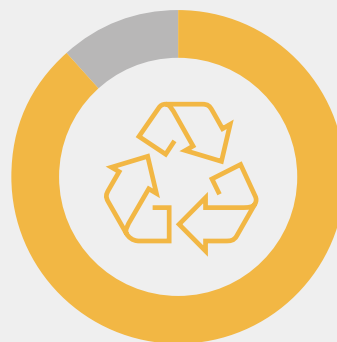
Manufacturing waste is of significant concern to the cosmetics industry, not only from a sustainability perspective, but also because it can be costly to dispose of. To reduce waste, some manufacturing plants now use refillable and reusable boxes for transporting ingredients, and some have implemented manufacturing processes that are designed to keep product losses and offcuts to a

minimum. Resource efficiency is a key element of sustainable design, and is important for achieving a more circular economy. Also, to prevent waste being sent to landfill, cosmetic manufacturers are recycling, biotreating or incinerating waste. The cosmetics industry is constantly improving its recycling rates and some plants already recycle 100% of their waste.

WASTE REDUCTION

In Belgium, for instance, one manufacturing plant has installed technology to monitor waste generation. Line bins have been fitted with smart cards recognised at the four weighing stations across the production area and connected via special software. The technology compiles information on the tonnage of waste produced based on type, line, machine, team, etc. The installed system has already reduced line-waste output by almost **25%**.

Another company has achieved a waste recycling rate of **88.5%** for its industrial sites, exceeding its target of **88.0%** for 2016. The company tailors its efficiency measures to the processes and materials at each facility; its waste recycling target for 2017 is **90.0%**.



88.5% waste recycling

5.4.3 Water usage

Fresh, clean water is a critical resource enabling life on Earth to be sustained. It is also a vital resource for the cosmetics industry and is used in the formulation and manufacturing of virtually every type of cosmetic product. Recognising the importance of effectively managing this precious (but limited) resource, many cosmetics companies have started to map the amount of water used along the cosmetics value chain. This has enabled them to prioritise actions to reduce their water use. Rainwater harvesting and reuse of wastewater are two approaches that have been employed to reduce water consumption within the cosmetics industry. Water pollution is also a concern among cosmetics companies and steps are being taken to treat wastewater before it re-enters the environment.



REDUCING WATER CONSUMPTION

As an example, a large cosmetics company has in its Belgian facility a new water treatment system which cleans waste water for reuse in mechanical cleaning. In this way, it reduced water use by **50%** at this location.

50% less water used



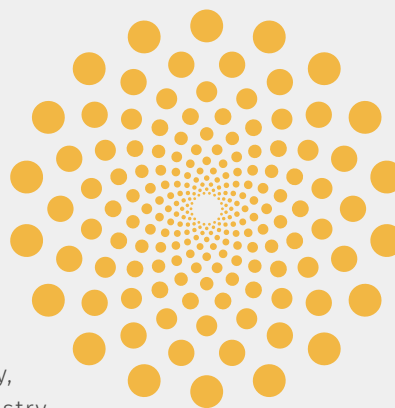
A contract manufacturer for the cosmetics industry has employed a variety of approaches to reduce water usage, including changes to overflow controls on some of their process equipment and proactive changes to sanitation processes. The company has installed a modern reverse osmosis water plant, with added controls. These actions have contributed to a **64%** reduction in water consumption over 5 years.

Another company is conducting a comprehensive water risk assessment at all its manufacturing and R&D locations to implement resource protection plans at certain sites. The company has already made substantial progress in reducing its water use, realising an absolute reduction of over **9%** between 2005–2010, and an additional **7.2%** between 2010 to 2015.

5.4.4 Plastic marine litter

ACTION ON PLASTIC MICROBEADS

In October 2015, in view of public concerns expressed over plastic litter in the marine environment and given the availability of alternative materials, Cosmetics Europe recommended to its membership to discontinue, in wash-off cosmetic and personal care products placed on the market as of 2020: the use of synthetic, solid plastic particles used for exfoliating and cleansing (known as microbeads) that are non-biodegradable in the marine environment. The Cosmetics Europe recommendation built on voluntary initiatives already taken by individual companies. A Cosmetics Europe survey, conducted in 2016, assessed the effectiveness of these industry voluntary actions. It found a rapid and substantial (**82%**) reduction in the use of plastic microbeads for exfoliating and cleansing purposes in wash-off cosmetic and personal care products between 2012 and 2015.



It should be noted that many sources of plastic litter in the marine environment have been identified and quantified. In fact, scientific evidence suggests that the vast majority of microplastics in the seas come from the breakdown of bigger plastic materials. In addition, it should be noted that scientific studies show that up to **99%** of microplastics are captured by waste water treatment plants.

The European cosmetics and personal care industry has taken action on this matter irrespective of the fact that the cosmetics and personal care sector is an extremely minor potential contributor to the total amount of aquatic plastic litter: one credible report estimated this to have been between **0.1%–1.5%** in 2012. Given the above survey results, any such potential minor contribution will also now have been reduced significantly.

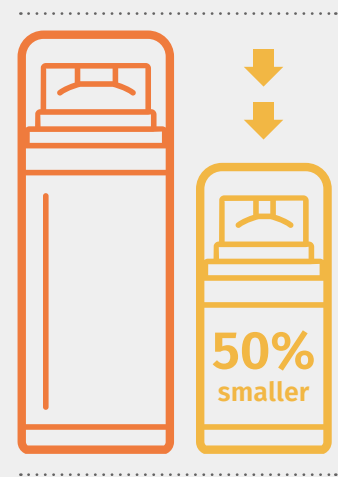
5.5 Distribution

The industry is adapting its distribution practices to reduce the emissions associated with the transport of cosmetics. Companies are shifting their transportation from road to rail and from air to sea, or introducing hybrid or electric vehicles. As an example, several companies have consolidated their distribution networks to reduce the distance between distribution centres and retailers, and some have started using mega-warehouses (i.e. large-scale distribution centres where products are stored until the required quantities are due for delivery)

to cut down on unnecessary journeys. Using larger container trucks and introducing new 'compact' products has helped to reduce the total number of journeys required. Compact products are smaller in size and volume than their conventional counterparts. Not only do they generally require less packaging, a larger number of units can be transported simultaneously, which reduces the greenhouse gas emissions associated with their distribution.

COMPRESSED AEROSOL CUTS CARBON FOOTPRINT

One company, for instance, has developed a compressed deodorant product with a reduced carbon footprint. The new product lasts the same time and is as effective as the one it replaces, but is half the size. The newly designed cans use on average **25%** less aluminium and because more cans fit onto a pallet, **35%** less lorries are required for distribution (Wills, 2014). By 2020, the company aims to reduce the weight of its packaging by one third through using lighter materials, optimising structural and material design, developing more concentrated products and eliminating unnecessary packaging. The company has already cut the weight of packaging per consumer by 11% by compression, design and lightweighting.



5.6 Consumer use phase

Cosmetic products are directly used by consumers or applied by professionals (e.g. hairdressers and beauticians). There is mounting evidence – confirmed by Cosmetics Europe’s study into the environmental footprint category rules for shampoo – that a large proportion of the environmental footprint of rinse-off or wash-off cosmetic products (shower and bath products, shampoos and conditioners, etc.) occurs during this ‘use’ phase. For these products, the amount of water and the energy necessary for heating it can have a significant environmental impact. It has been estimated, for example, that around **90%** of the total CO₂ emissions across the product lifecycle of shampoo stem from the heating and use of tap water.

Industry is tackling this problem by innovating products and educating consumers. Innovative products are being developed that require less water during use. For example, some companies have developed concentrated shampoo formulas that only require a single lather, while others have developed ‘two in one products’ that remove the need to use a separate conditioner.

There are also initiatives being led by cosmetics companies that aim to educate consumers about water conservation. Many companies’ websites provide suggestions and tips for consumers on ways

to reduce household water use, e.g. installing water efficient showerheads, turning off the tap while brushing your teeth, taking shorter showers, etc. The focus is not only on adults who buy cosmetic products, but also on children. For example, lessons are given in schools to educate children on how to save water. Ensuring these principles are carried forward into adulthood.

Direct communication at the point-of-sale is another initiative aiming to educate consumers about their environmental footprint.

SAVING WATER

Social-media provides an opportunity for cosmetic companies to communicate directly with their customers. As an illustration of how social media can be utilised, one large cosmetics company has developed an online video to educate consumers on how to reduce their water use. The video provides practical suggestions, such as turning off the tap while cleaning your teeth and hands, and reducing the amount of time spent in the shower.

5.7 Post-consumer phase

Cosmetic products having been rinsed- or washed off, go to waste water treatment plants. Packaging waste is subject to various waste management techniques which depend on infrastructure and consumer habits, investments made in modern collection, separation and processing systems, the packaging type and material(s), etc.

It is widely recognised within the cosmetics industry that the use of recycled and/or recyclable packaging can help to reduce the amount of consumer waste sent to landfill. Cosmetics companies are increasingly using recycled paper and cardboard for packaging, rather than virgin materials.



Several companies have introduced consumer incentives (e.g. free products or vouchers) for returning packaging that can be refilled and/or reused. Using refillable/reusable packaging saves on raw materials, which is environmentally advantageous, but the associated cost savings can also be transferred to the consumer. A number of companies have introduced refillable packaging in the fields of hair care, lotions/ moisturisers, and soaps.

Another way that cosmetics companies have helped to combat the issue of consumer waste is to use compostable packaging (e.g. replacing petrochemical packaging with plant fibres). Cardboard has historically been used as a packaging system but some companies are also using other materials, such as bamboo, straw, or certain bioplastics.

BIODEGRADABLE PACKAGING

For example, one company has developed a line of compostable makeup, based on packaging made from cardboard and bioplastics. Cardboard is used for the base and cover, while plant-derived plastic forms the internal mechanism, resulting in a 100% plant derived and biodegradable packaging.



Approximately one fifth of consumers would buy shower, bath and soap products with environmentally friendly packaging, with around half wishing to buy products which come in recyclable packaging.

In some cases, companies have been able to remove the packaging altogether. Inventions such as shampoo bars and using soap bars rather than liquid soap can help to eliminate the need for packaging.

One of Cosmetic Europe's member associations (The Fédération des entreprises de la beauté, FEBEA) has launched a campaign to encourage consumers of cosmetic products to recycle. The association has created videos that explain what can be recycled and a website has been created for consumers to search whether different types of packaging can be recycled in their area. There is also a downloadable smartphone application version created by Eco-Embalages.

The use of biodegradable, recyclable and reusable packaging continues to increase and packaging is designed more and more based on a life cycle thinking



5.8 Building for the future

All consumer products create environmental impacts throughout their lifecycles. Recognising the need to design products and processes that minimise their environmental footprint, companies in the cosmetics industry have implemented a broad range of strategies that contribute to improving the sector's sustainability. Clearly, environmental sustainability programmes will evolve further in the future. For example, the use of biodegradable, recyclable and reusable packaging continues to increase and packaging is designed more and more based on a life cycle thinking. Eco-design of formulas and packaging is encouraged and is more and more accompanied by education and sharing of best practices.

- Environmental and social criteria are increasingly considered when sourcing ingredients and packaging materials. Deforestation is being minimised and steps are taken to ensure that biodiversity is conserved.
- Efficient processes and technologies are progressively being used during manufacturing to reduce the consumption of energy and water and to minimise emissions, pollution and waste. Where possible, energy is derived from renewable sources.
- To reduce the emissions from transport, cosmetics companies are adapting their distribution practices.
- The findings of Cosmetics Europe's study into the environmental footprint category rules for shampoo can also be considered by companies for application to related product types (e.g. rinse-off shower and bath products).
- Given that a large share of the environmental footprint of many cosmetic products arises during use and subsequent disposal, the cosmetics industry is increasingly looking at ways to engage consumers, also via digital media.

Chapter 5 Bibliography

- Bee Good (2017) About us. Available at: <https://beegood.co.uk/pages/about-beegood>
- Bioplastic Feedstock Alliance (2017): Who we are. Webpage available at: <http://bioplasticfeedstockalliance.org/who-we-are>
- Brittany Black Bee Conservation Association: <http://www.abeillenoireouessant.fr/>
- Burt's Bees Greater Good Foundation: <https://www.burtsbees.com/content/outreach/out-reach-asset.html#hxfYFoP3F68Y01l6.97>
- City Bees and Country Bees: <http://www.urbanbees.eu/en/content/news>
- Cosmetics Business (2011): Packaging – the creativity of sustainability. Article available at: https://www.cosmeticsbusiness.com/technical/article_page/Packaging_the_creativity_of_sustainability/61794
- Cosmetics Europe (2016): Study into the product environmental footprint category rules for shampoo, April 2016. Report available at: <https://www.cosmeticseurope.eu/how-we-take-action/driving-sustainable-development/>
- Cosmetics Europe (2017a): The environmental footprint of a shampoo and possible ways to reduce it. Video available at: <https://www.cosmeticseurope.eu/videos/environmental-footprint-shampoo-and-possible-ways-reduce-it>
- Cosmetics Europe (2017b): All about plastic microbeads. Article available at: <https://www.cosmeticseurope.eu/how-we-take-action/leading-voluntary-actions/all-about-plastic-microbeads>
- DETiC (2003): *DETiC signe la charte 2020 de l'Alliance Belge pour une huile de palme durable (BASP)*. Webpage available at: <http://www.detic.be/fr/palmoil>
- Earthwards®: <http://www.earthwards.com>
- Eco-Emballages (2017): Guide du tri. App available to download at: <https://www.consignesdetri.fr/>
- EcoVadis (2017): Customer stories. Website available at: <http://www.ecovadis.com/customer-stories>
- Estée Lauder Companies (2016): : https://www.elcompanies.com/~media/Files/E/Estee-Lauder/resources-and-reports/reports/ELC_Citizenship_Sustainability_Report_2016.pdf
- European Parliament (2012): Parliamentary questions, 7 June 2012, Preserving lavender growing in the EU. Webpage available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+P-2012-005718+0+DOC+XML+V0//EN>
- Forest Stewardship Council: <https://us.fsc.org/en-us>
- Henkel (2017): Sustainability at beauty care. Article available at: <http://sustainabilityreport2015.henkel.com/beauty-care/sustainability-at-beauty-care>
- HCV Resource Network (2017): What is HCV? Article available at: <https://www.hcvnetwork.org/about-hcvf>
- Johnson & Johnson's Responsibility Standard for Forest Based Materials and Products: <https://jn.brightspotcdn.com/4d/7f/9bb05cba4cf28b5fe640da28f715/jnj-responsibility-standards-forest-materials-and-products.pdf>
- KAO (2016): Reducing CO2 emissions across the product lifecycle. Report available at: http://www.kao.co.jp/corp/sustainability-reports/en/pdf/pdf/sustainability2016_e_015.pdf
- Keskistri (2017): Eco-Emballages. Videos available on YouTube: <https://www.youtube.com/user/EcoEmballages>
- L'Occitane (2017): Celebrate the beauty of nature. Webpage available at: <http://uk.loccitane.com/earth-day,83,1,67131,714272.htm>
- L'Oreal (2014): Sharing beauty with all, the L'Oreal Sustainability Commitment. Report available at: http://www.loreal-finance.com/_docs/0000000012/RAL0014_GB_web2.pdf
- L'Oreal (2015): Sharing Beauty with all, the L'Oreal Sustainability Commitment. Report available at: http://www.sharingbeautywithall.com/sites/default/files/cms/sbwa-progress-report-2015_english.pdf
- L'Oreal (2016): An innovative and responsible building. Article available at: <http://www.sharingbeautywithall.com/en/producing/reducing-co2-emissions/innovative-and-responsible-building>
- L'Oreal (2016): Guaranteeing sustainable sourcing for our renewable raw materials. Article available at: <http://www.sharingbeautywithall.com/en/innovating/respecting-biodiversity/guaranteeing-sustainable-sourcing-our-renewable-raw-materials>
- LVMH (2014): Guerlain protects Brittany black bees. Article available at: <https://www.lvmh.com/news-documents/news/guerlain-protects-brittany-black-bees>
- Mintel GNPD (no date), as reported by JRC (2012): Revision of European ecolabel criteria for soaps, shampoos and hair conditioners, Market analysis. Report available at: http://susproc.jrc.ec.europa.eu/soaps_and_shampoos/docs/Market%20Analysis_Draft%20Repor.pdf
- Programme for the Endorsement of Forest Certification: <http://pefc.org/>
- Responsible Mica Initiative: <http://www.responsible-mica-initiative.com/>
- RSPO (2017): RSPO supply chains. Article available at: <http://www.rspo.org/certification/supply-chains>
- Swallowfield (2016): Environment. Webpage available at: <http://www.swallowfield.com/more/environment/>
- Wills J (2014): Unilever's compressed aerosols cut carbon footprint by 25% per can. Article for The Guardian, available at: <https://www.theguardian.com/sustainable-business/sustainability-case-studies-unilver-compressed-aerosols>

6. Securing a Sustainable Future

The United Nations General Assembly adopted in September 2015 the 2030 Agenda for Sustainable Development. This Agenda contains **17 Sustainable Development Goals (SDGs)** and **169 targets** which all seek to build on the Millennium Development Goals (established in 2000) and complete what they did not achieve.

Of the 17 SDGs - which balance the environmental, social and economic dimensions of sustainable development – those that resonate the most with the cosmetics industry are: (3) good health and well-being; (8) decent work and economic growth; (9) industry, innovation and infrastructure and (12) responsible consumption and production.

The European Commission has committed to take this agenda forward, across many relevant policy areas, for example through initiatives such as the Circular Economy Strategy which is designed to address more sustainable patterns of production and consumption.

Cosmetics Europe has engaged actively and voluntarily in areas included in the Commission's Circular Economy action plan, such as environmental claims, product environmental footprint, plastic marine litter; it is considering additional voluntary initiative opportunities.

6.1 Sustainability in action

THE COSMETICS INDUSTRY PLACES A STRONG EMPHASIS ON ENSURING CORPORATE SOCIAL AND ENVIRONMENTAL RESPONSIBILITY AND SUPPORTING PROACTIVE VOLUNTARY AND SELF-REGULATORY INITIATIVES.

“SUSTAINABLE DEVELOPMENT IS DEVELOPMENT THAT MEETS THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS.”
(BRUDTLAND COMMISSION, 1987)

“Sustainable development” can be defined and interpreted in many different ways, but at its core is a focus on development that seeks to balance the different, and often competing, needs of the environment, society and economy – both now and in the future.

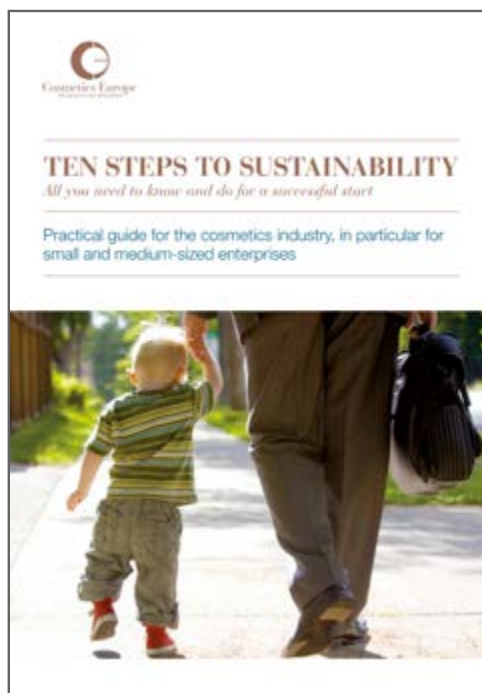
Cosmetics Europe fully supports the principles and objectives of sustainable development and its members' commitment to sustainability is embedded in its mission statement:

“COSMETICS EUROPE'S MISSION IS TO SHAPE A EUROPEAN OPERATING ENVIRONMENT CONDUCIVE TO LONG TERM GROWTH AND A SUSTAINABLE FUTURE”

To this end, Cosmetics Europe has developed two useful guidance documents to encourage companies (particularly SMEs) to become more sustainable:



“Good Sustainability Practice for the cosmetics industry” which provides practical advice on how senior decision makers in a small, medium or large cosmetics company can develop and implement an effective sustainability strategy.



“Ten Steps to Sustainability: all you need to know and do for a successful start” which has been developed to assist companies (particularly SMEs) in the cosmetics sector to kick-start their sustainability efforts.

In line with the United Nations Global Compact (2015), some of the largest cosmetics companies in Europe have created codes of conduct for their suppliers in order to establish harmonised criteria in the areas of corruption, human rights and environmental protection, which must be met if they are to work together.

Recently, Cosmetics Europe has focused its sustainability-related activities on a study into the Product Environmental Footprint Category Rules for shampoo, which is a voluntary pilot aimed at mirroring the development of the European Commission's pilots in this field.

Cosmetics Europe has also engaged, together with four European supplier industry associations, in the development of best practice for the cosmetics industry in the field of compliance with legislation pertaining to access to genetic resources and the fair and equitable sharing of benefits derived from their utilisation (implementation in EU law of the Nagoya Protocol on the conservation of biodiversity).

6.2 Working with local communities

The European cosmetics industry has invested heavily in community programmes covering a broad range of different themes. These include education programmes (particularly for young people, and around the topic of 'health'), aiding the unemployed to get back into work, providing support to the vulnerable, and programmes for disaster relief and promoting fair trade. Some examples of community programmes in the cosmetics industry are provided in the boxes below.

HEALTH EDUCATION

In an effort to reduce the impact of oral disease, one company has introduced a programme which seeks to educate children around the world about oral health. Another company has introduced a handwashing education programme, which teaches children in the lower grades of elementary school how to wash their hands properly.

FOR WOMEN IN SCIENCE



The 'For Women in Science' programme is jointly founded by UNESCO and has been running for over 17 years to promote and highlight the importance of the participation of women in science. Annually, the programme recognises the achievements of exceptional female scientists and awards them with Fellowships to help further their research.

FAIR TRADE



Shea butter is used increasingly in cosmetic products and the fair trade of shea nut produce is key to creating a stable income and social autonomy for female workers in Burkina Faso. Several companies have schemes to promote the fair trade of shea products.

EMPLOYMENT OPPORTUNITIES

Several companies have schemes aimed at helping people from underprivileged communities, people with disabilities or from under-represented socio-ethnic groups get into work. For example, one company has a scheme which teaches youths' basic hairdressing techniques with the aim of providing them with a vocation. They also have a programme in Poland which has helped 60 long-term unemployed women to successfully re-enter the job market.

EDUCATION OPPORTUNITIES

The education of young people is a theme which runs through many cosmetic companies' community programmes.

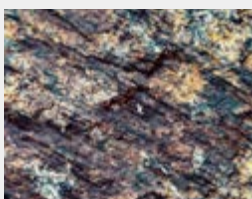
One company has provided training to **180** teachers in Indonesia, who are subsequently providing access to education for **6,000** children. Another company is working with the Hand in Hand for Haiti Foundation to build a school and sports complex which will house 720 children. Enrolment is free and all students have access to psychological support, a full-time nurse and two meals a day. The school also provides employment for 90 people. Another company is building libraries for children in Vietnam to provide them with access to learning resources. In Germany and France, companies in the cosmetics industry are helping to provide higher education for students from disadvantaged backgrounds.

HEALTH RESEARCH

Many cosmetic companies make significant investments to help improve people's health and wellbeing. For example, two companies work with research institutions and health care professionals to improve access to quality medication and health care for patients with sickle cell anaemia. One company provides finance for research and clinical studies into atopic dermatitis, while another company has established consultations for children and their families with the illness and donates medical skin care products.

One company has provided beauty treatments for over 10,000 people suffering from physical or psychological damage as a result of illness, accidents, major medical treatments and social distress. Cosmetic companies have also set up schemes to provide water purifier packets (clean drinking water) and vaccinations for women and children in developing countries.

MICA MINERALS



Mica is a group of minerals that can be found in a large variety of consumer goods and industry materials, from cosmetics to car paint, electronic components and construction materials.

India is one of the largest producer of mica, mainly collected informally from the top soil by local families, using simple hand tools. A large part of this informal collection is located in the North-eastern districts of Bihar and Jharkhand. Because of the remoteness and lack of vital resources of this area, local populations mainly rely on mica collection to maintain a livelihood, despite harsh working conditions.

The Responsible Mica Initiative is a cross-industry **Do-Tank** which aims to:

- Implement fair, responsible and sustainable good practices and increase traceability all along the Indian mica supply chain,
- Empower local communities to ensure long lasting change thanks to the implementation of inclusive and holistic empowerment programs,
- Build a legal and liveable environment for local communities by working hand-to-hand with the Indian government.

7. Conclusions

The cosmetics and personal care industry includes **a wide range of products** dedicated to health, beauty and well-being. Ranging from hair care, skin care, oral and body care to perfumery and decorative cosmetics, cosmetic products are an **important part of people's everyday life and bring important functional and emotional benefits**.

Europe is the **global flagship producer of cosmetic products**. In 2016, the European cosmetics market was valued at **€77 billion**, making Europe the largest market for cosmetic products in the world. Trade is a critical component of the industry, with trade in cosmetic products and ingredients (within the EU30) exceeding €33 billion. Nearly €18 billion worth of cosmetic products were exported from Europe (EU-28) in 2016. Such exports are particularly important in countries strongly affected by the Euro crisis (such as Spain and Italy) where the cosmetics sector is helping to secure national economic recovery.

The industry makes a significant contribution to the European economy across its value chain. It is estimated that the cosmetics industry brings at least €29 billion in added value to the European economy every year, of which approximately €8 billion is contributed directly by the manufacture of cosmetic products (the remaining €21 billion is generated indirectly through the supply chain).

SMEs are key drivers of innovation and economic growth. While there are more than 5,000 enterprises manufacturing cosmetics in Europe, the vast majority of these companies are SMEs. In 2016, there were **4,900 SMEs** in Europe. Along the value chain, a wide variety of different types of enterprises are involved indirectly in the cosmetics industry. For example, there are **over 100 companies manufacturing cosmetic ingredients in Europe, 20,100 enterprises involved in the wholesale of cosmetics and 45,700 specialist stores** retailing cosmetics. About half a million hairdressing and beauty salons (the majority of which are also SMEs or micro-enterprises) also rely on the use of cosmetics and the number of European spas is also growing and may be a source of inward investment to Europe in the form of "wellness tourism".

The cosmetics industry is a science-driven, fast-paced and a highly innovative sector which makes large investments in R&D. Assuming that companies in the cosmetics industry spent just 3% of their annual

turnover on R&D in 2014, **total expenditure on R&D** in Europe would have been **circa €1.27 billion**. There are at least **33 scientific innovation facilities** in Europe carrying out research in relation to cosmetics. More than **27,700 scientists** are employed by the cosmetics industry in Europe. Patent activity is a useful indicator for innovation and, in 2011, approximately 6,000 patents were filed by the European cosmetics industry.

The industry supports millions of jobs. Including direct, indirect and induced economic activity, the industry supports at least 2 million jobs. Of these, 164,000 workers are employed directly in the manufacture of cosmetic products, and around 1.6 million workers are employed indirectly in the cosmetics value chain. For every 10 workers employed (directly or indirectly) by the European cosmetics industry, a further two jobs are generated in the wider economic value chain (as a result of employees spending their wages on goods and services). It is estimated that between 347,900 and 521,800 workers are employed thanks to these 'induced' employment effects.

The industry places a strong emphasis on ensuring environmental responsibility and supporting proactive voluntary and self-regulatory initiatives.

While aiming to enhance the social benefits of its products, and the economic value of its activities, the European cosmetics industry is committed to reducing its environmental impact throughout the cosmetic products' life cycle stages. Increasing numbers of cosmetic companies are publishing their sustainability targets and are regularly reporting achievements about various aspects. Also, most of the larger companies – not restricted to global players – are active at the level of global sustainability platforms such as the World Business Council for Sustainable Development (WBCSD), the Consumer Goods Forum (CGF), the Natural Resources Stewardship Circle (NRSC) or The Sustainability Consortium (TSC).

Cosmetics Europe and its members have a common belief that sustainability and business success go hand in hand. Cosmetics Europe plays a key role in bringing its members together and developing a forward-looking common sustainability agenda with the aim to jointly improve the sustainability profile of the sector. It is open and committed to collaboration with all relevant stakeholders, throughout the value chain.

8. Abbreviations and list of references

ACRONYMS

CAGR	Compound Annual Growth Rate
FTE	Full-time equivalent
FEBEA	La Fédération des Entreprises de la Beauté
GDP	Gross Domestic Product
GVA	Gross Value Added
MNC	Multinational Corporation
R&D	Research and development
SEA	Socio-economic analysis
SMEs	Small and medium sized enterprises
UNGC	United Nations Global Compact

GEOGRAPHIC ABBREVIATIONS

AT	Austria	PT	Portugal
BE	Belgium	RO	Romania
BG	Bulgaria	SE	Sweden
CY	Cyprus	SI	Slovenia
CZ	Czech Republic	SK	Slovakia
DE	Germany	UK	United Kingdom
DK	Denmark	EU28	The 28 Member States of the European Union
EE	Estonia	EU30	The 28 Member States of the European Union, plus Norway and Switzerland
EL	Greece		
ES	Spain		
FI	Finland		
FR	France		
HR	Croatia		
HU	Hungary		
IE	Ireland		
IT	Italy		
LU	Luxembourg		
LV	Latvia		
MT	Malta		
NL	Netherlands		
PL	Poland		

Bibliography

- Apaolaza-Ibáñez V, Hartman P, Diehl S and Terlutter R (2011): Women satisfaction with cosmetic brands: The role of dissatisfaction and hedonic brand benefits. *African Journal of Business Management*, Vol 5 (3) pp. 792-802. Journal article available at: http://www.academicjournals.org/article/article1381331588_Vanessa%20et%20al.pdf
- Beiersdorf (2017) Sustainability overview. Available at: <http://www.beiersdorf.co.uk/sustainability/overview>
- Beiersdorf (2015) Sustainability Review. Available at: <http://www.beiersdorf.com/sustainability/reporting/sustainability-reporting>
- BrandFinance (2013): The world's most valuable cosmetic brands, The BrandFinance® Cosmetics 50 2013. Document available at: http://brandfinance.com/images/upload/most_valuable_cosmetics_brands_2013.pdf
- Bretonès D & Scheel C (2011): Transforming an Industrial District into a High-Tech Cluster: Assessing the Cosmetic Valley's Readiness and Benefits, *International Business Research*, Vol 4, No. 4. pp. 3-14. Journal article available at: <http://ccsenet.org/journal/index.php/ibr/article/view/12359>
- Centers for Disease Control and Prevention (2015): Hand-washing, clean hands save lives. Webpage available at: <http://www.cdc.gov/handwashing/>
- Clarke J (2009): Global Spa Summit, May 2009, Diagonal Reports. Presentation available at: <http://www.globalwellnesssummit.com/2009/postsummit/files/pdf/Tuesday/Afternoon%20Breakout%20Sessions/B.%20Beauty%20Industry%20Developments/Beauty.Industry.Developments.Spa.Wellness.GSS.pdf>
- Colgate-Palmolive (2017) Sustainability. Available at: <https://www.colgatepalmolive.com/en/us/corp/core-values/sustainability>
- Cosmetics Europe (formerly Colipa) (2010): Science, beauty and care: Innovation in cosmetics, European Parliament, Brussels, Exhibition 7/8 December 2010. Report available at: <https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/innovation.html>
- Cosmetics Europe, Study into the product environmental footprint category rules for shampoo, April 2016. Available at: <https://www.cosmeticseurope.eu/how-we-take-action/driving-sustainable-development/>
- Cosmetic Valley (2015): Chiffres clés de la Cosmetic Valley. Webpage available at: <http://www.cosmetic-valley.com>
- COTY (2017) Sustainability. Available at: <https://www.coty.com/tags/sustainability>
- Cozigou G et al. (2015): The European Partnership for Alternative Approaches to Animal Testing (EPAA): Promoting alternative methods in Europe and beyond, *Journal of the American Association for Laboratory Animal Science*, 54 (2), pp 209-213. Journal article available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382626/figure/fig1/>
- Credit Suisse (2013): Global Beauty Industry. Report available at: https://doc.research-and-analytics.csfb.com/docView?language=ENG&source=emfromsend-link&format=PDF&document_id=1025509521&extdocid=1025509521_1_eng_pdf&serialid=xabsnH6scTqef2MQX-cNkDTl3SzdjdWd2yrK%2fWThr4E%3d#page=9&zoom=auto,-265,40
- CTPA (2013): YouGov Research into Self-Esteem, April 2013, Top-line Findings. Research document provided to RPA by the CTPA.
- Danish Environmental Protection Agency (2015): Survey and exposure assessment of methylisothiazolinone in consumer products. Survey of chemical substances in consumer products No, 134, 2015
- Deckard A (2015): Essential oils for soap. Article available on Healthy Focus website, available at: <http://healthyfocus.org/essential-oils-for-soap/>
- de Oliveira C et al. (2010): Toothbrushing, inflammation, and risk of cardiovascular disease: results from Scottish Health Survey. *British Medical Journal (Online)*, available at: <http://www.bmj.com/content/340/bmj.c2451>
- Dental Health Foundation Ireland (2015): Effective Toothbrushing. Webpage available at: <http://www.dentalhealth.ie/dentalhealth/teeth/effectivetoothb.html>
- EFFCI (2015): About us. Webpage available at: <http://effci.com/about-us/>
- Ensink J (2015): Well Factsheet: Health impact of hand-washing with soap. Webpage available at: <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/Handwashing.htm>
- Essel R et al (2015): Sources of micro plastics relevant to marine protection in Germany, Umwelt Bundesamt, available at: http://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/texte_64_2015_sources_of_microplastics_relevant_to_marine_protection.pdf

Estee Lauder (2017) Sustainability. Available at: <https://www.elcompanies.com/our-commitments/sustainability>

Eurofound (2009): Representativeness of the European social partner organisations: Personal services sector. Report available at: http://www.eurofound.europa.eu/sites/default/files/ef_files/docs/eiro/tn0811017s/tn0811017s.pdf

Euromonitor International (2014): Number of SMEs per country is 2014, data provided to RPA by Cosmetics Europe

European Commission (2013): Commission Staff Working Document, Impact Assessment on the Animal Testing Provisions in Regulation (EC) 1223/2009 on Cosmetics, Accompanying the document – Communication from the Commission to the European Parliament and the Council on the animal testing and marketing ban and on the state of play in relation to alternative methods in the field of cosmetics, (COM(2013) 135 Final). Working document available at: http://ec.europa.eu/consumers/sectors/cosmetics/files/pdf/animal_testing/ia_at_2013_en.pdf

European Commission (2015): The importance of the digital economy, DG GROWTH. Webpage available at: http://ec.europa.eu/growth/sectors/digital-economy/importance/index_en.htm

Eurostat (2012): Annual detailed enterprise statistics for trade, [sbs_na_dt_r2]. Data available at: <http://ec.europa.eu/eurostat/data/database>

Eurostat (2012/13): Annual detailed enterprise statistics for trade, [sbs_na_dt_r2]. Data available at: <http://ec.europa.eu/eurostat/data/database>

FEBEA (2015a): Monographie sur L'Emploi et les Rémunérations 2014, Enquêtes sociales de branche 2014. Document provided to RPA by FEBEA.

FEBEA (2015b): La Fédération des Entreprises de la Beauté. Document available at: https://extranet.febea.fr/fileadmin/extranet/documents/articles/COMMUNICATION_ET_MEDIAS/Plaque_FEBEA.pdf

Ficheux AS et al. (2015): Consumption of cosmetic products by the French population. First part: Frequency data, Food and Chemical Toxicology, 78, pp 159-169. Journal article available at: http://www.researchgate.net/publication/272199849_Consumption_of_cosmetic_products_by_the_French_population._First_part_Frequency_data

Global Insight (2007): A study of the European Cosmetics Industry, Final Report for the European Commission, DG Enterprise & Industry. Report available at: http://edz.bib.uni-mannheim.de/daten/edz-h/gdb/07/study_eu_cosmetics_industry.pdf

Grand View Research (2015): Organic Personal Care Market Analysis by Product (Skin Care, Hair Care, Oral Care, Cosmetics) and Segment Forecasts to 2020. Article available at: <http://www.grandviewresearch.com/industry-analysis/organic-personal-care-market>

Green A, Williams GM, Logan V & Strutton GM (2011): Reduced melanoma after regular sunscreen use: randomised trial follow up. Journal of Clinical Oncology, 29, pp 257-263. Journal article available at: <http://jco.ascopubs.org/content/29/3/257.full.pdf>

GHK (2011): Study on social policy effects resulting from the scope of application of the European framework agreement on the prevention of health risks in the hairdressing sector, DG Employment, Social Affairs and Inclusion. Presentation available at: http://dati.filmcams.cgil.it/filmcams/internazionale/2011%2003%2010%20WG%20Presentation_Weber.pdf

GSK (2017) Responsibility. Available at: <http://www.gsk.com/en-gb/responsibility/>

Henkel (2017) Sustainability. Available at: <http://www.henkel.co.uk/sustainability>

Hunter M (2011): The product development process for cosmetics, Toiletries, Insecticides, & Household Cleaning Products. Presentation available at: <http://www.slideshare.net/Murray58/the-new-product-development-process-for-cosmetics-toiletries-insecticides-household-cleaning-products>

IFRA (2013): The socio-economic impact of fragrance technologies in Europe. Report available at: www.ifraorg.org/view_document.aspx?docId=23341

ICF GHK (2014): Overview of economic and labour market trends and occupational health and safety issues in the hairdressing sector. Document available at: http://www.uniglobalunion.org/sites/default/files/files/news/2014_ghk_hairdressing_trends_update.pdf

IBISWorld (2015): Cosmetics & Toiletries Retailers in the UK: Market Research Report. Abstract available at: <http://www.ibisworld.co.uk/market-research/cosmetics-toiletries-retailers.html>

Johnson & Johnson (2017) Citizenship & Sustainability. Available at: <https://www.jnj.com/caring/citizenship-sustainability>

Kantar Worldpanel (2014), as reported by Statista (2015): Average annual spend on health and beauty in the United Kingdom (UK) from 2011 to 2013, by age group (in GBP). Statistics available at: <http://www.statista.com/statistics/304550/health-and-beauty-spend-united-kingdom-uk-by-age-group/>

- Kao (2017) Sustainability. Available at: http://www.kao.com/jp/en/corp_csr/csr.html
- Look Good Feel Better (2015): Facts and Figures. Webpage available at: <http://www.lookgoodfeelbetter.co.uk>
- L’Oreal (2017) Sustainability. Available at: <http://www.loreal.com/sustainability>
- LVMH (2017) Environment. Available at: <https://www.lvmh.com/group/lvmh-commitments/environment/>
- Marlowe CM, Schneider SL, Nelson CE (1996): Gender and attractiveness biases in hiring decisions: are more experienced managers less biased?. *J. Appl. Psychol.*, 81 (1): 11-21.
- Mintel (2011): Deodorants and bodysprays, UK. Abstract available at: <http://store.mintel.com/deodorants-and-bodysprays-uk-february-2011>
- NHS (2015): How to keep your teeth clean. Webpage available at: <http://www.nhs.uk/Livewell/dentalhealth/Pages/Teethcleaningguide.aspx>
- Patel (2012): The state of oral health in Europe, Report for The Platform for Better Oral Health in Europe, available at: <http://www.oralhealthplatform.eu/our-work/the-state-of-oral-health-in-europe/>
- Pierre Fabre (2017) Sustainable Development. Available at: <http://www.pierre-fabre.com/en/sustainable-development>
- Pira International, as reported by Statistica (2015): Cosmetic packaging consumption from 2003 to 2009, by region (in million U.S. dollars). Statistics available at: <http://www.statista.com/statistics/381882/cosmetic-packaging-consumption-by-region/>
- Postnord (2014): E-Commerce in Europe, 2014. Report available at: <http://www.postnord.com/globalassets/global/english/document/publications/2014/e-commerce-in-europe-2014.pdf>
- Procter & Gamble (2016) Environmental Sustainability. Available at: <http://us.pg.com/sustainability/environmental-sustainability>
- PWC (2013): Footprint 2020, Offline retail in an online world. Report available at: http://www.strategyand.pwc.com/media/file/Strategyand_Footprint-2020.pdf
- SCS (2015): About SCS. Webpage available at: <http://www.scs.org.uk/content.aspx?pageid=234>
- Shiseido (2017) Environment. Available at: <https://www.shiseidogroup.com/csr/env/>
- The Guardian (2014): Lights, camera, lipstick: beauty vloggers are changing the face of the make-up industry. Article available at: <http://www.theguardian.com/fashion/2014/jul/20/beauty-bloggers-changing-makeup-industry>
- The Renfrew Centre Foundation (2012): New survey results indicate there’s more to makeup use than meets the eye. Article available at: http://renfrewcenter.com/sites/default/files/press_release_pdfs/Barefaced%20and%20Beautiful%20Release%20-%20FINAL.pdf
- Thompson Reuters (2015): State of innovation. Report available at: <http://stateofinnovation.thomsonreuters.com/industries/chemicals-cosmetics/>
- Unilever (2017) Sustainable living. Available at: <https://www.unilever.com/sustainable-living/>
- United Nations Global Compact (2015). Webpage available at: <https://www.unglobalcompact.org/>
- Williams SN & Dienes KA (2014): Sunscreen sales, socio-economic factors and melanoma incidence in Northern Europe: a population-based ecological study. Article available at: <http://sgo.sagepub.com/content/4/4/2158244014559023>
- WHO (2012): Oral Health, Fact Sheet No. 318, April 2012. Webpage available at: <http://www.who.int/mediacentre/factsheets/fs318/en/>

€1.27bn

Expenditure on R&D
in Europe

€77bn

Value of the European
cosmetics industry

4900 SMEs

The number is growing

Around
**2 MILLION
JOBS**
across the EU



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