



# The value of fragrance

**A socio-economic contribution study  
for the global fragrance industry**

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## Foreword



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Everyone who uses scented products knows the enjoyment fragrance brings to their lives – whether it be from a memory-evoking perfume, fresh-smelling laundry, or the clean feeling provided by a shower gel. Since early civilisation fragrance has triggered a range of valuable emotions: bringing joy, relaxation or a sense of escape; boosting self-esteem; allowing us all to show our individuality and personality.

We know the value of these feelings to be significant – although it is immeasurable and individual. We can, however, attempt to calculate the value of fragrance in other ways. This socio-economic analysis, prepared by PwC, aims to make the value of fragrance tangible by studying the contribution of our industry in terms of jobs and value created.

The report maps out the fragrance ‘value chain’ for the first time. The fragrance value chain is wide-ranging, diverse and complex – taking us on a long, global journey from unique raw materials, to design laboratories and manufacturing plants, and on to retail shelves.

We know that the fragrance value chain supports jobs in laboratories, in farms, in factories and in shops – but how many? We know that the value chain supports

skills, education and community development – but what is the positive impact? We know that socio-economic value is added at every stage of the value chain – but how much?

This report provides the answers to these questions and demonstrates that the value of fragrance is considerable and has material leverage. The fragrance industry may be small, but it makes a big impression.

The data in this report shows how this high-value industry can thrive and have a positive impact on neighbouring sectors. This positive impact does not happen by accident. It is the fruit of innovation, creativity and good business stewardship, all underpinned with the right policies and regulation.

Now, with this socio-economic analysis, we look to engage in a much richer dialogue with policymakers, regulators and stakeholders around the world. We seek an environment in which our industry can continue to grow and play its role as a responsible sector. And we want to continue to share the value of fragrance – the special intangible value and its many social and economic benefits – with suppliers, manufacturers, retailers and consumers around the world.



# Glossary

Abbreviation	Explanation
APAC	Asia-Pacific
CPG	Consumer Packaged Goods, in this report also referred to as consumer products
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
FTE	Full-Time Equivalent: a measure of socio-economic contribution to employment. One FTE is equivalent to one employee working full-time.
GDP	Gross Domestic Product: a measure of output of all final goods and services produced within a country's borders in a given year. It includes all private and public consumption, government outlays, investments and exports less imports that occur within a country.
GVA	Gross Value Added, also referred to as 'Value Added': the company-level equivalent of GDP which is made up of a company's wages and profits. Adding up the GVA of all individual companies in the economy is equivalent to a country's GDP after adjusting for taxes and subsidies on products, a component of GDP which is not included in the calculation of GVA.
IFEAT	International Federation of Essential Oils and Aroma Trade
IFRA	The International Fragrance Association
IO table	Input-Output table: summarises how the activities of different sectors in an economy relate to each other. The interlinkages are used to quantify a 'multiplier' effect on the overall economy of an increase in activity in any one sector.
LATAM	Latin America
R&D	Research and Development
STEM	Science, Technology, Engineering and Maths
US	United States

Description of scope	Explanation
<b>Downstream customers</b>	This refers to manufacturers and retailers of the fine fragrance and consumer products that use fragrances. These are the customers of the fragrance industry and do not include the consumers of the final consumer product.
<b>Downstream socio-economic contribution</b>	We estimated the Value Added generated by downstream customers and then estimated the proportion of the Value Added derived from the fragrance element of the fine fragrance and consumer products. The proportion was derived from product experts and academic research.
<b>Fine fragrance and consumer products</b>	Our study focussed on 25 product categories across the fine fragrance, personal care (including cosmetics) and home care/cleaning (including fabric care) markets. These are also referred to as consumer packaged goods (CPG).
<b>Fragrance industry</b>	The industry encompasses companies that manufacture and blend fragrance ingredients. These companies also conduct research, encapsulation and other supporting activities.
<b>Twenty prioritised countries, excluding the US and Canada</b>	IFRA comprises 21 national associations representing 23 countries. This study covers 20 countries: the United States, Canada, South Africa and New Zealand are not included; India is added. A separate study is being conducted for the US and Canada. Our data collection from fragrance manufacturers and our downstream market size research focussed on 20 countries, representing the material operations of manufacturers that participated in the data collection.
<b>Upstream socio-economic contribution</b>	The socio-economic contribution of upstream suppliers was assessed for the fragrance industry's sourcing locations. Based on data from 14 global and regional fragrance manufacturers, we found that sourcing of naturals, synthetics and indirect materials for their operations in the 20 prioritised countries occurred across 41 countries. We assessed the upstream socio-economic contribution across these 41 countries, one of which is the US.





## Executive summary

Fragrances are unique and complex combinations of natural and synthetic ingredients that are added to products to give them a distinctive smell. Fragrances are not only used in perfumes, but also in many other consumer products, such as cosmetics, personal care and household cleaning products. They satisfy valued emotional needs and solve important functional problems, such as masking bad smells.

Fragrance can be a key driver for consumer choice and consumer brands often rely on innovation with fragrances to differentiate their products and drive value.

Fragrances are considered to be a combination of science and creativity. The fragrance industry relies on its suppliers to deliver natural and synthetic raw materials sourced from over 50 countries. It then carries out research and development (R&D) and manufacturing activities using a highly skilled workforce to deliver fragrances to its downstream customers. These customers are manufacturers and retailers of fine fragrance and consumer products.

The International Fragrance Association (IFRA) represents the interests of the fragrance industry worldwide through its network of 21 national member associations covering 23 countries. IFRA commissioned PricewaterhouseCoopers (PwC) to assess the socio-economic contribution of the fragrance industry's entire value chain. Our assessment includes an estimate of the Gross Value Added (GVA) (also referred to as 'Value Added') and the employment supported (number of jobs, measured in full-time equivalent (FTE)) for the fragrance industry.

Based on data from 14 international and regional fragrance manufacturers, we estimated the global socio-economic contribution of the fragrance industry, generated by the fragrance manufacturing and blending (including R&D and supporting activities), as well as from its supply chain spend on naturals, synthetics and indirect material. The data from the manufacturers focussed on their operations in 20 countries that are part of the IFRA membership. We then scaled the

data to the global industry. We also considered the additional Value Added generated and the employment supported through the wages paid to the employees of the manufacturers and their suppliers.

Using insights from industry experts and academic research, we also estimated the proportion of Value Added generated by downstream manufacturers and retailers of fine fragrance and consumer products that can be attributed to the fragrance element of the products. However, this proposition is difficult to attribute to the fragrance industry, as the Value Added generated by the downstream companies is a result of many activities and industries. Therefore, we used a conservative approach and analysed the importance of fragrances separately.

# Key findings

All figures refer to the fragrance industry's activities globally in 2017, excluding the US and Canada. The results for the fragrance industry were derived from primary data collected from 14 global and regional fragrance manufacturers.

Employment figures are rounded to the nearest 500.

## 1

### Fragrance is an important link in the economy

The fragrance industry is a central link in a fragrance value chain that runs from ingredient suppliers to consumer product manufacturers and retailers.

The fragrance industry alone generates sales of €7.3bn globally<sup>1</sup>, with downstream CPG producers generating €357bn in sales from manufacturing and retailing (23% in home care/cleaning, 68% personal care/cosmetics and 9% fine fragrance).

Value in the fragrance industry is driven by revenue gains but enabled by success operating across this complex value chain.

**€7.3bn**

Global<sup>1</sup> sales generated by the fragrance industry

**€357bn**

Global<sup>1</sup> sales generated by consumer product manufacturing and retailing<sup>2,3</sup>

## 2

### Fragrance delivers economic and social value

Through activities such as manufacturing, blending and R&D the fragrance industry supports value generation and job creation.

The global activities<sup>1</sup> of the fragrance industry create €2.5bn of Value Added and supports more than 15,000 full-time jobs.

An additional value of €0.3bn is created from the spending of the fragrance industry's employees. Their spending in the economy also supports another 11,000 full-time jobs. When added up, the Value Added of €2.8bn represents 39% of the total Value Added generated by the fragrance industry (€7.2bn).

**€2.8bn**

Value added from global activities<sup>1</sup> of the fragrance industry and from the spending of its employees

**26,000**

Full-time jobs supported by the fragrance industry<sup>1</sup>

## 6

### Fragrance benefits suppliers and the communities in which they operate

The fragrance industry's upstream supply chain is diverse and global, supporting value generation, employment and wider community benefits.

Through their own operations and employment of people, suppliers to the fragrance industry contribute €4.4bn<sup>4</sup> of Value Added and support about 389,000 full-time employees globally<sup>3</sup>, as well as the wider economic and community contributions associated with the suppliers' activities.

**€4.4bn<sup>4</sup>**

Value added generated by suppliers to the fragrance industry

Naturals: €1.2bn  
Synthetics: €2.3bn  
Indirect Materials: €1.0bn

**389,000**

Full-time jobs supported by suppliers to the fragrance industry

Naturals: 218,000  
Synthetics: 139,500  
Indirect Materials: 31,500

## 7

### Fragrance benefits consumer product manufacturers

As a 'platform technology', fragrance enables innovation and value generation downstream – supporting growth and job creation among consumer product manufacturers and retailers.

Despite being only a small fraction of the overall product cost, for 25 consumer product categories the Value Added that can be attributed to fragrance is estimated at between €48bn and €72bn, based on a total market size of €357bn. This estimate is based on a range of academic studies and product expert opinions.

Fragrance is usually a relatively small element in the finished product cost chain but can be a major factor that influences consumers' purchasing decisions for some products.

**€48bn – €72bn**

Value added for 25 consumer product categories that can be attributed to fragrance (based on a total market size of €357bn)<sup>2</sup>

Overall, we estimate that the total Value Added generated by the fragrance industry is **€7.2bn**, derived from the operations of the fragrance industry and its suppliers, and from employees spending their wages. Total employment supported by the industry is 415,000 FTEs.<sup>1</sup>

<sup>1</sup> Excluding the fragrance industry's operations and purchasing in the US and Canada. The US and Canada are excluded from the scope of this study as the Fragrance Creators Association, covering North America, is currently conducting a socio-economic contribution study for fragrance manufacturers in the US and Canada.

<sup>2</sup> Due to the scale and complexity of consumer markets, estimating the exact Value Added attributable to fragrances is challenging.

<sup>3</sup> Across products that use fragrances in 25 product categories.

<sup>4</sup> Due to rounding, the sum of the individual numbers may not add up to the total.

# 3

## Fragrance means innovation

The fragrance industry invests significantly in R&D – using its creativity and expertise to deliver fragrances that are valued by consumers for meeting both emotional and functional needs.

Fragrance manufacturers invest around 8%<sup>5</sup> of their net sales in R&D – double the European Union average for large global companies and higher than all sectors other than pharmaceuticals and technology hardware.<sup>6</sup>

Consumer product manufacturers and retailers often rely on innovation from the fragrance industry to provide differentiation through technology, understanding of consumer trends, and sustainable production.

# 8%

Proportion of net sales invested in R&D by fragrance manufacturers – higher than all sectors other than pharmaceuticals and technology hardware in the European Union<sup>6</sup>

# 8

## Fragrance is global

The fragrance industry supports job creation and economic value around the world. It includes international regional and local businesses to deliver fragrance-based products to the final consumer.

The fragrance industry sources ingredients and materials from suppliers based worldwide. Its customers are manufacturers and retailers across the globe, serving global consumer markets.

Data from fragrance manufacturers and industry associations shows that the fragrance industry sources from more than 50 countries.

# 45+

Manufacturing countries of fragrance and flavour companies

Based on public data available for Givaudan and IFF

# 50+

Sourcing countries

# 4

## Fragrance nurtures skills

Jobs in the fragrance industry are high-skilled, high-value and R&D-focused.

Success demands highly skilled employees in sourcing, R&D, creation, evaluation, sales and manufacturing, thereby generating high Value Added.

The fragrance industry generates €135,000 of Value Added per employee.

Considering the industry in UK, Germany and Switzerland only, this is more pronounced and increases to €148,000 per employee, which is significantly more than the automotive sector, with €115,000.

# €135,000

Value added per employee in the fragrance industry globally<sup>1</sup>

# 9

## Fragrance is complex and diverse

Using natural and synthetic raw materials sourced from around the world, the industry creates fragrance ingredients that satisfy people's emotional needs and solve functional problems.

Suppliers to the fragrance industry generate €1.2bn of Value Added from producing and selling natural raw materials, supporting 218,000 FTEs. For synthetics, €2.3bn of Value Added is generated, supporting 139,500 FTEs. The supply of natural ingredients to the fragrance industry supports 250 FTEs per €m of spend and 34 FTEs per €m of spend for synthetic materials.

# €1.2bn

Value added from producing and selling natural raw materials to the fragrance industry, supporting 218,000 jobs.

Suppliers of indirect materials generate another €1.0bn of Value Added and support 31,500 FTEs.

# €2.3bn

Value added from producing and selling synthetic raw materials to the fragrance industry, supporting 139,500 jobs.

# 5

## Fragrance manufacturing is at the heart of a sophisticated value chain

The fragrance industry unlocks benefits for its suppliers and its customers – generating value and supporting jobs for farmers, the chemicals sector, consumer goods manufacturers and retailers.

The fragrance value chain defined in this report is a simplified overview of a complex and diverse network of actors involved in sourcing, producing, manufacturing and selling fragrances and fragrance-based consumer products.

# 3,000

Raw material suppliers to global fragrance and flavour companies

Based on public data available for Givaudan and IFF

# 162

Customer markets for global fragrance and flavour companies

Based on public data available for Symrise and IFF

# 10

## Fragrance is a key differentiator

For consumers, fragrance can meet both emotional and functional needs and can be one of the key drivers of purchase. The fragrance industry unlocks value for fine fragrance, home care/cleaning and personal care (including cosmetics) product manufacturers and retailers as well as for the people who buy their products.

Looking at more than 25 product categories and hundreds of products that use fragrance, from floor polish to laundry care as well as fine fragrance, our research shows that for products such as perfumes and air care, the percentage of price that the consumer is willing to pay for the fragrance element can be as high as 88% and 86% respectively.

# Up to 88%

Percentage of price that the consumer is willing to pay for the fragrance element, according to industry experts and academic research.

<sup>5</sup> Average number, based on 2017 figures for their flavours and fragrances business, published by IFF, Givaudan, Symrise and Firmenich.

<sup>6</sup> The 2018 EU Industrial R&D Investment Scoreboard, available online at <http://iri.jrc.ec.europa.eu/scoreboard18.html>.





# Introduction

## Background and purpose of this study

### Background

Fragrances are unique and complex combinations of natural and synthetic ingredients that are added to many fine fragrance and consumer products to give them a distinctive smell. They satisfy valued emotional needs and solve important functional problems, such as masking bad smells.

Consumer brands rely on fragrances for differentiation and innovation. Fragrances are therefore considered to be a combination of science and creativity.

The fragrance industry sells fragrances to manufacturers and retailers of fine fragrance and consumer products, such as cosmetics and home care products. The manufacturers create distinctive products that establish differentiation and competitive advantage. This can help improve sales volumes, margins, loyalty among customers and brand equity.

The International Fragrance Association (IFRA) represents the interests of the fragrance industry worldwide. It seeks to promote the safe use and enjoyment of fragrance and ensure recognition of the economic, social and cultural value of fragrance.

IFRA is organised in four regions (Europe, Latin America (LATAM), Asia Pacific (APAC) and North America (US and Canada)) and comprises 21 national associations, who act as the representatives of the fragrance industry in 23 countries across these regions.

IFRA has a dual role: it is an advocate for the industry, but also a self-regulatory body through the IFRA Code of Practice and IFRA Standards. These Standards take scientific safety assessments to set out rules on the use of certain fragrance ingredients. The IFRA Standards are recognised by customers, trade bodies and regulatory authorities around the world.

### Purpose of this study

IFRA commissioned PricewaterhouseCoopers (PwC) to assess the fragrance industry's global socio-economic contribution across its entire value chain in 2017. Our assessment of the global contribution is based on data collected from 14 fragrance manufacturers and their operations in 20 countries. Our assessment includes an estimation of Gross Value Added (GVA) (also referred to as 'Value Added') and the employment supported (number of jobs, measured in full-time equivalent (FTE)) for the fragrance industry. The measures of Value Added and FTEs help to assess the fragrance industry's contribution to GDP and employment. This was done by:

- developing an overview of the value chain of the fragrance industry, in collaboration with IFRA's working group comprised of representatives of its members;
- designing a framework approach for a socio-economic contribution assessment that can be applied for future socio-economic assessments in other countries; and
- applying the framework approach and academically recognised modelling methodology to primary data.

The purpose of this study is to enable IFRA and its members to better articulate the value created by the industry and the fragrances themselves to regulators, governments, policy makers and other stakeholders.

IFRA represents the interests of the fragrance industry worldwide. It seeks to promote the safe use and enjoyment of fragrance and ensure recognition of the economic, social and cultural value of fragrance.

## The value chain of the fragrance industry

### The fragrance industry has a global and sophisticated value chain.

Together with IFRA's working group, representing its largest members and industry representatives, we developed a value chain spanning from the production of raw materials to the point of purchase of consumer products containing fragrances (see Figure 2). The main components of the value chain are outlined in Figure 1 and further explained below.

### Upstream suppliers

These are the companies that supply products and services to the fragrance industry. The suppliers include providers of natural ingredients and bio-chemicals, synthetic manufacturers and companies that provide goods and services that aid the production process, such as providers of machinery and equipment, logistics and packaging.

### Fragrance industry

This includes a diverse range of companies that use latest technology and academic research to manufacture fragrance ingredients, and create and supply proprietary fragrance blends. Naturals and synthetics are used for manufacturing and blending of natural fragrance ingredients and synthetic fragrance ingredients. Fragrance manufacturers also manufacture compounds (i.e. mixtures of individual chemicals) using synthetics and biotech processes.

### Downstream customers

These refer to the manufacturers and retailers of consumer products that contain fragrances. The downstream markets can be divided into:

- fine fragrance,
- personal care, including cosmetics,
- home care/cleaning,
- industrial and institutional (non-residential and professional-strength applications) and
- specialised essential oils

These are supported by a variety of auxiliary industries who provide packaging, logistics, marketing and other goods and services. The products are then distributed from the product manufacturers and retailers to the consumers through various retail channels, such as online selling, in-store selling and industry trades.

Figure 1: Main components of the value chain of the fragrance industry

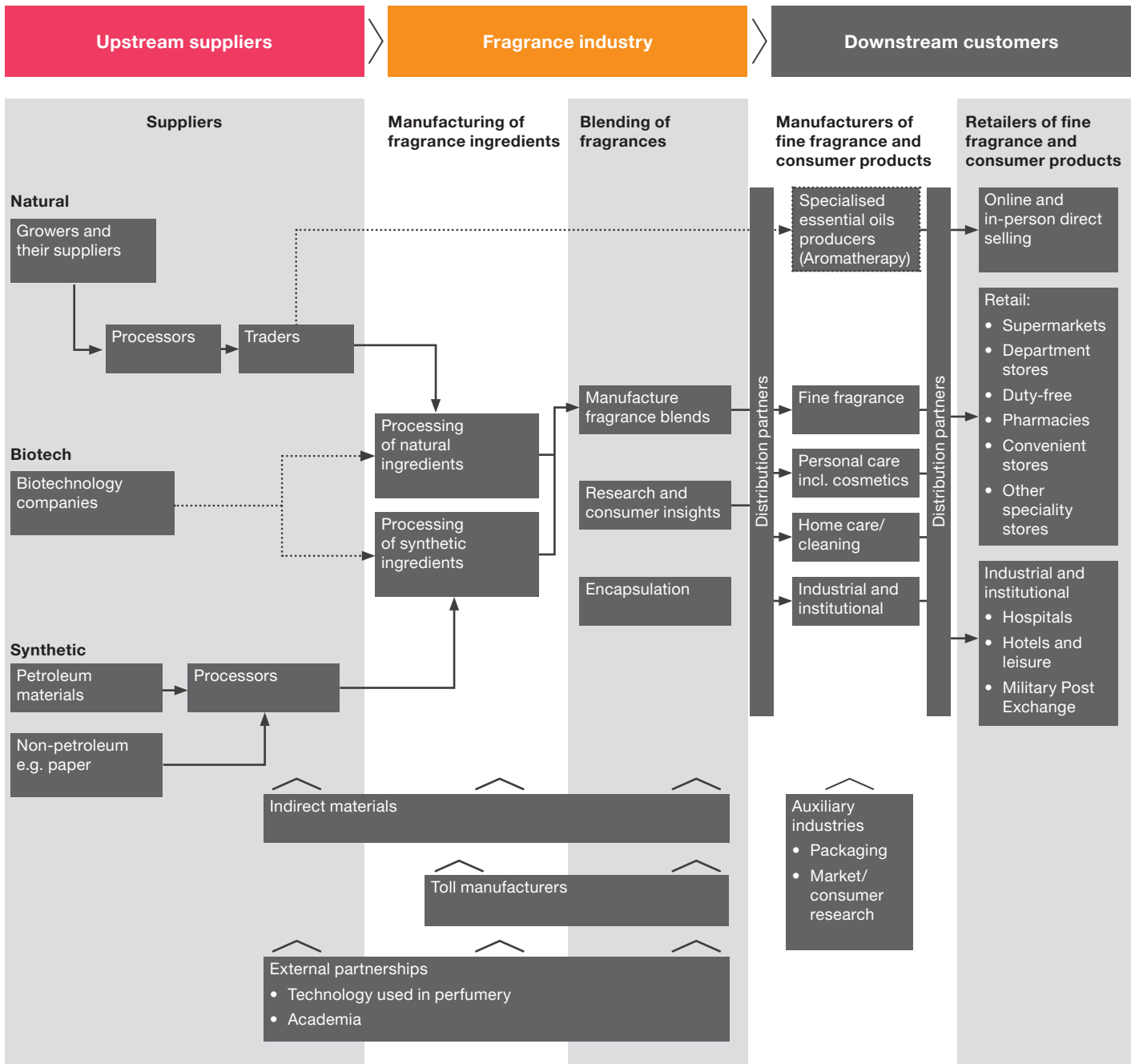


Figure 2 provides an overview of the value chain of the fragrance industry. It should be noted that the value chain for the industry is complex and can vary for each company. For example, naturals may be sold directly

to the fragrance manufacturers, or may pass through intermediaries (traders). We present a simplified overview of the processes involved in producing and selling fragrances and fragrance-based

products. The value chain was agreed with IFRA members and forms the basis of this study. Figure 3 provides further information on some of the components in the value chain.

**Figure 2: Value chain of the fragrance industry**





**Figure 3: Definition of value chain components**

#### Auxiliary industries

These are other industries that provide products and services to downstream manufacturers to produce fine fragrance and consumer products, such as packaging.

#### Biotechnology

Biotechnology is the exploitation of biological processes for fragrance manufacturing.

#### Encapsulation

This refers to fragrance delivery systems that protect and carry fragrance to the point at which it needs to be released. For example, it can delay fragrance diffusions, such as in detergents or deodorants.

#### Indirect materials

These refer to other materials or services purchased by the fragrance industry and its suppliers that are required to deliver the fragrances, such as machinery, energy and marketing.

#### Industrial and institutional

This is a delivery channel for products sold in large quantities to industries and institutions such as hospitals and the military.

#### Toll manufacturing

This refers to an arrangement where a company with specialised equipment processes raw materials or unfinished goods for the fragrance industry.





# Scope

## Value chain and geographical coverage

**We estimated the global socio-economic contribution across the value chain, excluding the fragrance industry's operations in the US and Canada.**

### Coverage of the value chain

Figure 4 outlines the key components of the value chain that we focussed on for our assessment, based on materiality and feasibility. These are further explained below.

- 1. Upstream suppliers:** Our assessment focussed on suppliers of raw materials such as naturals and synthetics and suppliers of indirect materials that are required for the manufacturing and blending of fragrances. We did not include biotechnology companies as biotechnology is an emerging area and therefore not yet material or feasible to assess (due to a lack of data).
- 2. Fragrance industry:** Our assessment focussed on the manufacturing, blending, research and support activities of the industry. In line with IFRA's definition of the fragrance industry, we excluded fragrance products for the oral care and active cosmetics markets. Furthermore, these categories are difficult to attribute to the fragrance business. For example, mint is used in fragrance as well as food and drink (flavours) products.
- 3. Downstream customers:** We focussed on three downstream markets: fine fragrance, personal care (including cosmetics) and home care/cleaning. These are also referred to as consumer packaged goods (CPG) markets. The industrial and institutional market set out in the value chain is a delivery channel but does not represent a separate product group. For example, cleaning products captured in home care/cleaning are sold in bulk to the industrial market.

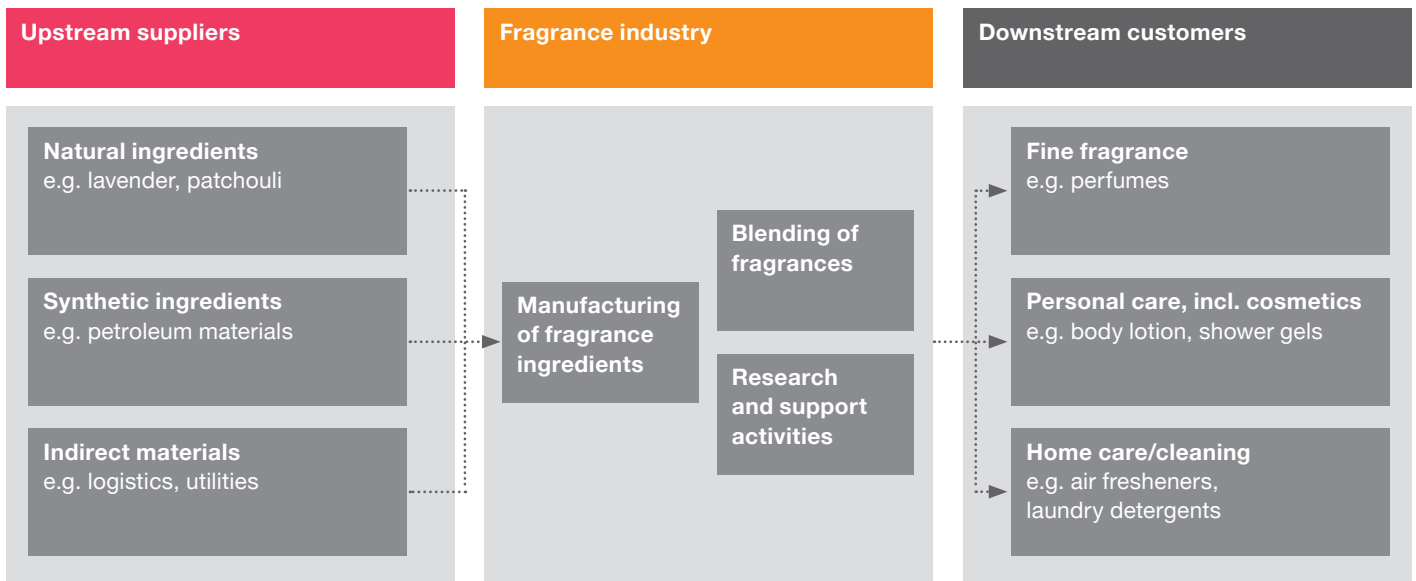
The market for essential oils and aromatherapy products is growing and is contributing to an increasing demand for natural ingredients upstream. However, this market was not included in the scope of our assessment due to a lack of available data. As the market is growing so is the data that is captured on the performance of companies within this market. Therefore, future socio-economic contribution studies for the industry should consider including essential oils and aromatherapy.



### Geographical coverage

We estimated the global socio-economic contribution of the fragrance industry and the fragrance components in fine fragrance and consumer products. However, the industry's operations in the United States (US) and Canada are excluded from the scope of this study as the Fragrance Creators Association is currently conducting a socio-economic contribution study for fragrance manufacturers in the US and Canada. This assessment follows a similar framework approach as this study and its results should be complementary to this report. It will help to further understand the global Value Added by fragrance manufacturers.

**Figure 4: Key components of the value chain that are within the scope of our assessment**



It is important to note that while covering the most material aspects of the value chain, our analysis was performed at the level of granularity presented in Figure 4. For example, within synthetics providers, we do not distinguish between petroleum materials and non-petroleum materials. Within downstream customers, we do not distinguish between manufacturers and retailers of fine fragrance and consumer products, or between different distribution channels.





## Primary data collection

### We collected primary data from global and regional fragrance manufacturers for the manufacturing and blending operations (including R&D and supporting activities).

To assess the global socio-economic contribution of the fragrance industry we collected financial and employment data, as well as spend data, from a representative sample of fragrance manufacturers. We then scaled the results from the companies to the global industry, excluding the industry's operations in the US and Canada.

Below, we set out the scope of the data collection:

#### Coverage of members of the fragrance industry

We selected a sample of companies comprising of the largest fragrance manufacturers in the industry globally, and local and regional small and medium-sized fragrance manufacturers. The large global companies include IFRA members such as Givaudan, IFF, Robertet, Symrise, Takasago and Drom and cover approximately 50% of the global fragrance market (by revenue)<sup>7</sup>. The regional small and medium-sized manufacturers are specialised manufacturers that operate primarily in the respective local or regional market. They are members of IFRA affiliate organisations in Europe and APAC, and include companies such as Hasegawa, Lucta, GRC Parfums, Essencia, Gülçiçek, Miltitz, Payan Bertrand and Phoenix. By considering both global and regional manufacturers, we have ensured that our sample represents the diverse range of manufacturers that make up the fragrance industry.

We collected primary data from each company in this sample using a bespoke survey request for their 2017 activities.

Besides fragrance manufacturers, we also received data from BASF, a chemical company based in Germany and supplier of synthetics to the fragrance industry, and from the International Federation of Essential Oils and Aroma Trade (IFEAT), which represents the interests of the companies involved in the production and trading of natural ingredients supplied to the flavours and fragrance industry. The data provided by BASF and IFEAT was used to sense check and adjust our results where appropriate.

### The data we collected from 14 fragrance manufacturers covered their operations in 20 prioritised countries.

#### Country coverage

We focussed on the contribution generated in the main manufacturing and blending locations (including R&D and supporting activities) of the fragrance manufacturers that provided primary data. The main locations are centralised in 20 countries ('20 prioritised countries') and listed in Figure 5. These 20 countries also represent key locations where IFRA has representation.

The scope of the primary data collection excluded fragrance products for the oral care and active cosmetics markets, in line with IFRA's definition of the fragrance industry.

#### Primary data provided

We asked fragrance manufacturers to provide the following data for their production, R&D and supporting activities in the 20 prioritised countries:

- Number of full-time employees
- Earnings before interest and tax (EBIT)
- Depreciation and amortisation
- Revenue
- Employee cost
- Spend on internal research (research cost)
- Spend on naturals, synthetics and indirect materials, by supplier location

53%

Global revenue of the fragrance manufacturers that provided data for this study.

Figure 5: The 20 countries included in the scope for data collection

Region	Countries
Europe	France, Italy, Switzerland, Germany, Netherlands, United Kingdom, Spain and Turkey
Latin America	Brazil, Argentina, Chile, Colombia, Mexico
Asia Pacific	Australia, China, South Korea, Japan, India, Indonesia, Singapore

<sup>7</sup> Leffingwell & Associates, available online at [http://www.leffingwell.com/top\\_10.html](http://www.leffingwell.com/top_10.html). The revenue breakdown represents the fragrance and flavour sector. We assumed the same revenue breakdown applies for the fragrance business only.



## Approach

**We use two indicators to measure socio-economic contribution: Gross Value Added (GVA) (or ‘Value Added’) and Employment (number of jobs, measured in full-time equivalent (FTE)).**

**Gross Value Added (GVA) (or ‘Value Added’)** is a measure of the Value Added in the economy and represents the difference between the value of goods and services sold and the goods and services used as an input to their production. This Value Added is distributed between capital and labour as profits and employee remuneration respectively. GVA is the company-level and sector-level equivalent of gross domestic product (GDP): if we sum the GVA of all individual sectors in an economy (adding production taxes and subsidies), we would arrive at a measure of the economy’s GDP.

**Employment** is the number of jobs or employees (expressed as full-time equivalent (FTE)).

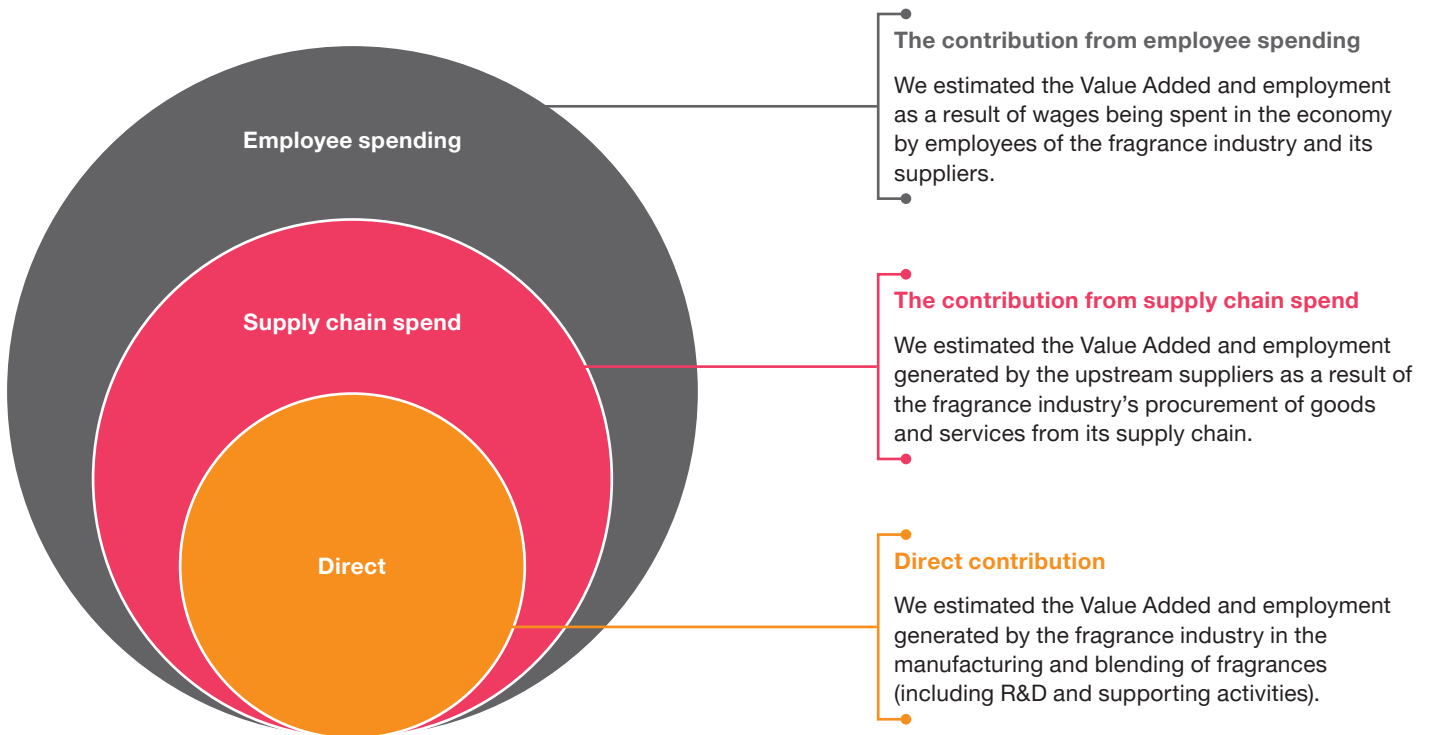
$$\text{GVA} = \text{EBITDA}^8 + \text{Employee Cost}^9$$

$$\text{GDP} = \text{GVA} + \text{production taxes} + \text{subsidies}$$

<sup>8</sup> Profit before interest, taxation, depreciation and amortisation. Amortisation and depreciation are both a form of a write-off, but amortisation refers to exclusively intangible assets (company goodwill, research and development) while depreciation refers specifically to tangible goods.

<sup>9</sup> Also referred to as ‘labour costs’ and includes salaries, social security and benefits in kind.

The socio-economic contribution of the fragrance industry can be measured at three levels: the direct contribution, supply chain spend contribution and the employee spend contribution.



**We estimated the contribution of the fragrance industry to GDP and employment, measured in Value Added and FTE.**

We developed a framework, set out in Figure 6, in order to capture the contribution generated at each stage of the value chain. More specifically, when assessing the contribution of the fragrance industry, our framework is designed to be exhaustive as it captures not just the direct contribution generated by manufacturing and blending (including R&D and supporting activities) of fragrances but also the additional contribution generated through supply chain spending and employee spending.

The fragrance industry generates direct contribution to GDP and employment through its own production activities and through the spending of wages paid to employees. In addition to this, the supply chain spend of the fragrance industry generates Value Added and employment in the sectors that supply goods and services and also along the supply chains of these sectors. Furthermore, supply chain purchases result in higher income for the employees in the sectors that supply goods and services and for employees along the supply chain of these sectors. The spending of this income generates additional Value Added and employment in economies. Considering both the contribution from supply chain spend and employee spending supported by the suppliers, we calculated the total contribution upstream, enabled by the spending of the fragrance industry.

**In addition, we estimated the proportion of Value Added generated by the industry's downstream customers that is attributable to the fragrance element of fine fragrance and consumer products.**

Separately from the contribution of the fragrance industry, we estimated the contribution of the fragrance element of fine fragrance and consumer products. More specifically, we estimated the direct contribution generated by the downstream manufacturers and retailers in the production and sale of fine fragrance and consumer products containing fragrances, and then estimated the proportion of this contribution that is attributable to the fragrance element of products.



**Figure 6: Elements of contribution across the value chain**

Value chain	Value chain contribution	Nature of contribution
Upstream suppliers	Determine the upstream socio-economic contribution.	<ul style="list-style-type: none"> <li>• Contribution through supply chain spend.</li> <li>• Contribution through employee spending.</li> </ul>
Fragrance industry	Determine the socio-economic contribution of the fragrance industry.	<ul style="list-style-type: none"> <li>• Direct contribution.</li> <li>• Contribution through employee spending.</li> </ul>
Downstream customers	Determine the importance of fragrance to the Value Added by downstream manufacturers and retailers.	<ul style="list-style-type: none"> <li>• Direct contribution of downstream manufacturers and retailers that is attributable to the fragrance component of a product.</li> </ul>

**We estimated the socio-economic contribution of the fragrance industry using primary data from fragrance manufacturers and economic models.**

**Determining the socio-economic contribution of the fragrance industry**

We measured the socio-economic contribution of the selected group of fragrance manufacturers in terms of Value Added and employment generated in the countries where their manufacturing and blending operations are based (including R&D and supporting activities).

**Direct contribution:** Using financial data collected from fragrance manufacturers, we combined earnings before interest and tax, employee costs, depreciation and amortisation to estimate the direct Value Added of each company in each of the 20 prioritised countries. This was then aggregated across all the companies that provided data. The direct contribution to employment is based on the number of full-time employees reported by the companies.

**Contribution from employee spending:**

Fragrance manufacturers generate additional Value Added and employment effects as their employees spend their wages and create demand in the economies. To measure this, we used Input-Output (IO) tables that summarise how the activities of different sectors in an economy relate to each other. These interlinkages are used to quantify a ‘multiplier’ effect on the overall economy of an increase in activity in any one sector. For each country of scope, we aggregate employee compensation for all fragrance manufacturers in scope, and estimate the amount of the employee compensation that is spent on each sector in the economy. Using IO tables, we then estimated the resulting increase in Value Added and employment accounting for the knock-on effects on other sectors of an increase in one sector’s activity.

**Determining the upstream socio-economic contribution**

**Contribution from supply chain spend:**

In the manufacturing and blending of fragrance, fragrance manufacturers rely upon products and services purchased from a wide range of suppliers, from growers of natural ingredients to providers of industrial equipment. These purchases generate additional economic activity, referred to as the contribution from supply chain spend. Similar to the wider economic effects generated by the spending of the employees of the fragrance manufacturers, there is an additional contribution generated by the spending of the employees related to their suppliers. Together, this is referred to as the upstream socio-economic contribution of the fragrance industry.

We collected procurement data from a subset of the industry members. The information requested included the nature of spend (i.e. naturals, synthetics and indirect materials), the amount spent and the location of the suppliers.

The contribution from supply chain spend is derived from two components:

**1** For each country of supply, we mapped the spend data of all companies that provided procurement data to different sectors in the economy, depending on the nature of spend. The supply chain spend in itself generates Value Added and employment in the sectors of supply (i.e. sectors involved in supplying the good or service to the fragrance industry). This forms the first component of the contribution from supply chain spend.

**2** The second component arises when these suppliers create further economic activity from their purchases. We used IO multipliers to estimate the Value Added and employment generated in the economy because of these supply chain purchases. These two components together give us the total Value Added and employment contribution in each country of supply generated indirectly because of purchases by the fragrance industry.

**Contribution from employee spending:** Additional economic activity is generated due to the spending of the employees that the suppliers to the fragrance industry directly and indirectly support. We applied IO multipliers to estimate the increase in Value Added and employment that is induced by employee spending that is supported by the suppliers.

We aggregated the upstream contribution of each fragrance manufacturer that supplied procurement data, and compared it against their total volume of production in the 20 prioritised countries. This provides an upstream contribution-to-volume ratio which we then apply to the volumes of the remaining members of the fragrance industry to estimate their total upstream contribution.

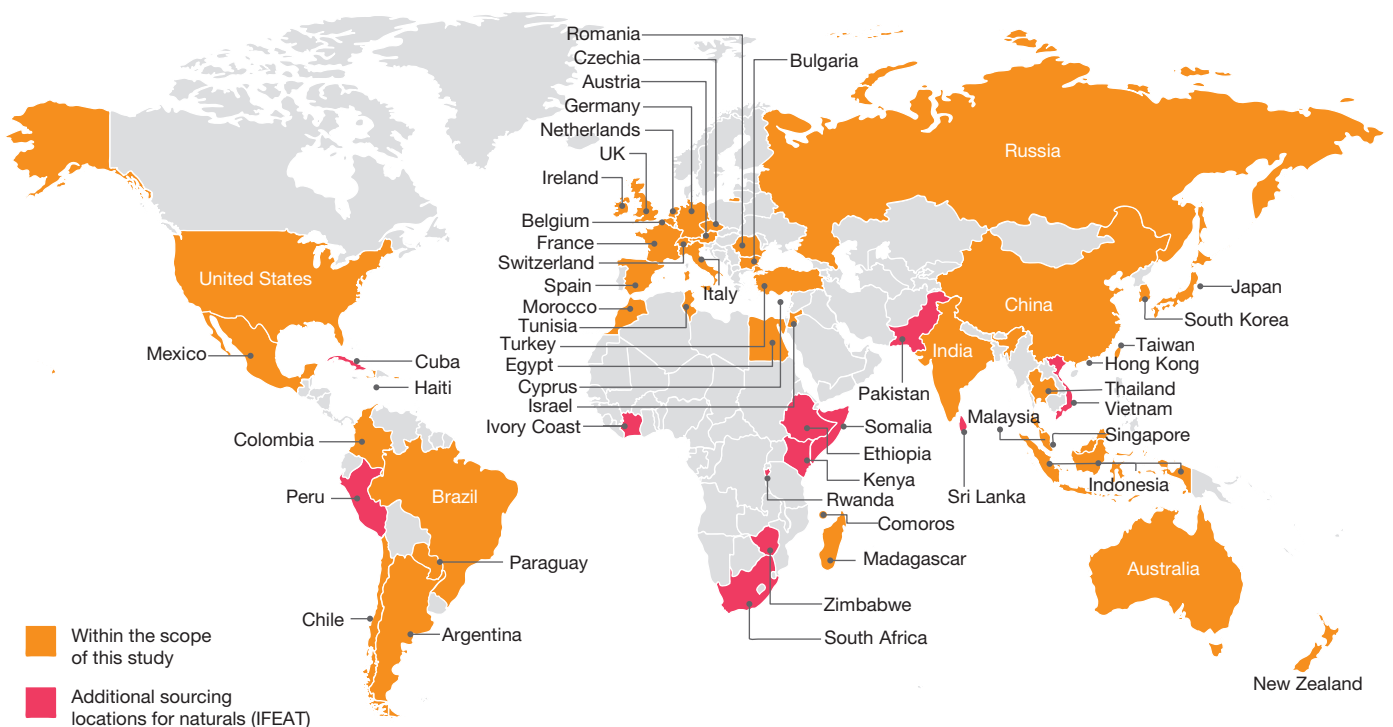
**The fragrance industry sources ingredients and indirect materials from suppliers globally. Our assessment includes sourcing activities in 41 sourcing locations.**

It is important to note that although we focussed on 20 countries for the manufacturing and blending operations of the fragrance industry (including R&D and supporting activities), the suppliers operate in more than these 20 countries. Our assessment captures Value Added and employment in 21 additional countries (41 countries of supply in total). These 41 countries are based on the data we

received from 14 fragrance manufacturers during the data collection phase. However, this is not a comprehensive list, with industry sourcing occurring globally in more than 41 countries. For example, based on additional data from IFEAT on sourcing locations for naturals, the sourcing locations expand to 54. Figure 7 below highlights the 41 countries in scope (PwC) and the additional sourcing locations of naturals (IFEAT).

**41**  
Number of sourcing countries identified for the sample companies.

**Figure 7: Map of sourcing locations**



We upscaled the data received from fragrance manufacturers for the 20 prioritised countries to assess the socio-economic contribution of the fragrance industry globally, excluding operations in the US and Canada.

To scale the socio-economic contribution of the 14 fragrance manufacturers and their suppliers to represent the industry's operations and supply chain in all countries (excluding manufacturers' operations in the US and Canada), we applied the following two steps:

1. Scale to all countries, excluding manufacturer's operations in the US and Canada.
2. Scale to the fragrance industry

This approach was validated by industry experts and approved by IFRA.

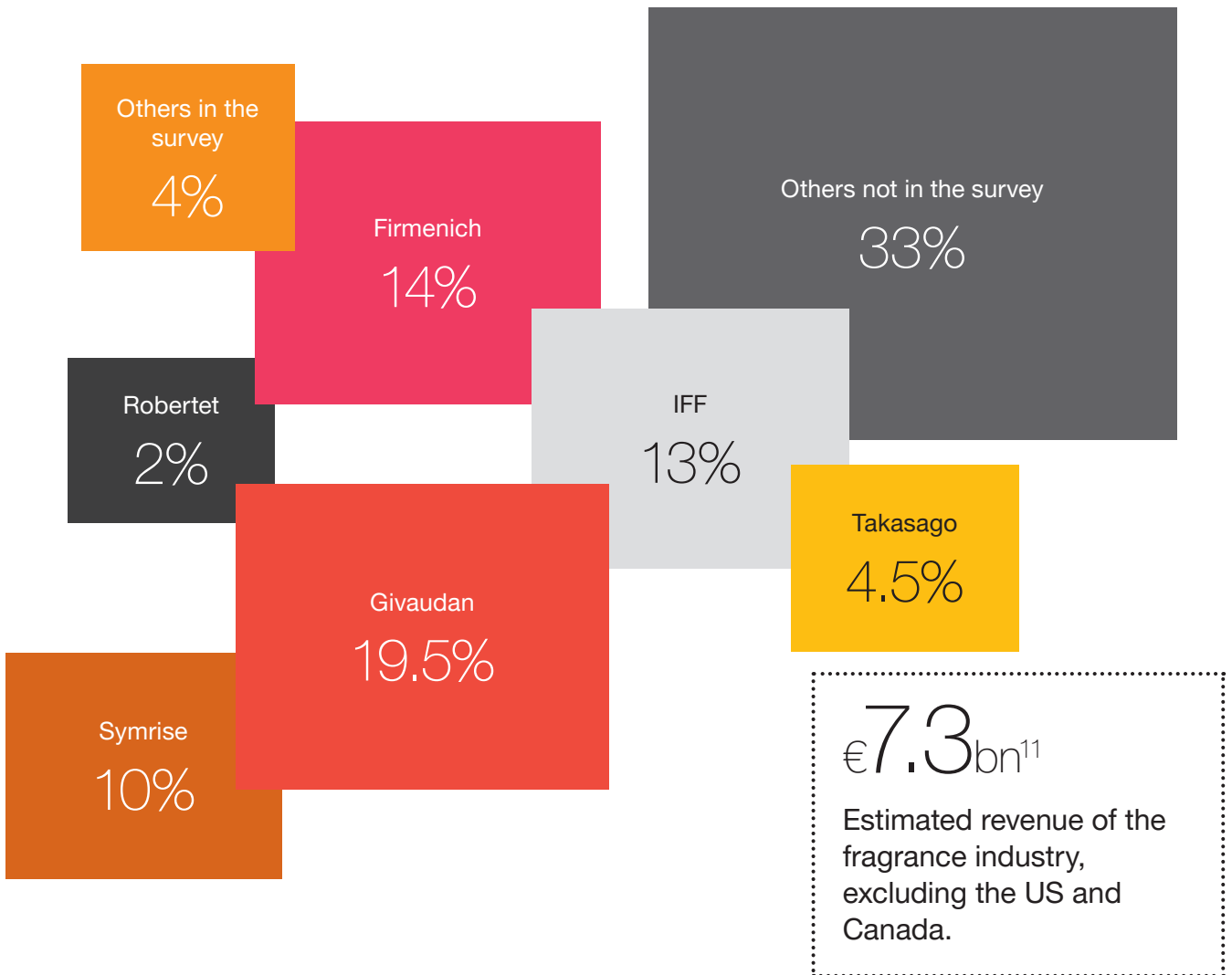
#### Scale to all countries, excluding the US and Canada

With no reliable public data available, we relied on insights from industry experts, who estimated that the 20 prioritised countries cover production of 60% of the global revenue generated by the fragrance industry. Furthermore, the experts estimated that 25% of production generating global revenue occurs in the US and Canada. Therefore, we upscaled the socio-economic contribution from the industry in the 20 countries (and the purchases made to support operations in those countries) to the remaining 75% of the global industry.

#### Scale to the fragrance industry

To upscale the contribution generated by the fragrance industry and its suppliers, we used revenue share, as shown in Figure 8. Figure 8 shows the global revenue share of fragrance and flavours manufacturers. We assumed that the same revenue breakdown applies to the fragrance business and that the revenue breakdown applies to all countries. We estimated that the total revenue of the fragrance industry globally, excluding the US and Canada, is €7.3bn<sup>11</sup>.

Figure 8: Estimated revenue share of the fragrance industry<sup>10</sup>



<sup>10</sup> Leffingwell & Associates, available online at [http://www.leffingwell.com/top\\_10.html](http://www.leffingwell.com/top_10.html). The revenue breakdown represents the fragrance and flavour sector. We assumed the same revenue breakdown applies for the fragrance business only.

<sup>11</sup> Using the share of revenue shown in Figure 8, we estimated the total revenue of the total industry, using the revenue figures provided by the manufacturers in the primary data collection phase, representing revenue from production, R&D and supporting activities in the 20 prioritised countries.



**We estimated the Value Added generated by downstream customers using market research data. We attributed the Value Added to the fragrance element of fine fragrance and consumer products using academic research and product expert opinions.**

**Approach to estimating the Value Added attributable to fragrance in downstream products**

Fragrances are used in the production of a wide range of downstream products for emotional and functional purposes. We grouped fine fragrance and consumer products into three product markets (fine fragrance, personal care (including cosmetics, and home care/cleaning) based on their use.

Downstream companies that manufacture and sell fine fragrance and consumer products generate direct Value Added through their activities, but this Value Added is not directly attributable to the fragrance industry. We estimated the proportion of this Value Added that can be attributed to the fragrance element of 25 product categories across the three product markets. We did this by exploring consumer preferences related to a product's elements and estimating the importance placed on the fragrance element of a product (relative to other elements).

**Our approach to estimating the contribution of the downstream companies that can be attributed to the fragrance element relies on secondary research. Below we present a high-level overview of our approach:**

**Estimating Value Added of each product market**

1

We obtained financial data for a sample of publicly listed downstream companies within each product market to estimate their Value Added. For companies that operate across markets, we broke down the aggregated Value Added of the business by market by applying the revenue or employment proportion of the product market. We aggregated the market-specific Value Added of all companies and compared to their total sales in that market to derive a revenue-weighted average ratio of Value Added to sales. We multiplied these ratios to the total market size (i.e. revenue) of each product market in each of the 20 prioritised countries (sourced from Euromonitor) to obtain the Value Added figure.

**Estimating the importance of the fragrance attribute in fine fragrance and consumer products**

2

Consumers purchase a product because of several elements, such as brand, price, functionality and fragrance. We analysed the importance placed by consumers on the fragrance element relative to other elements of a product. We defined the fragrance 'attribution coefficient' as the percentage of the price of a product that the consumer is willing to pay for the fragrance element of the product. We estimated this using existing research. In particular, we used two sources of secondary data – a) data from experts in the fragrance industry and b) data from published academic studies. We aggregated the estimates of the importance of fragrance by product from all sources and determined the minimum and maximum value to capture the range of estimates.

Finally, we multiplied the estimates of importance by product category and country with the Value Added of each product market in each of the 20 countries to estimate the minimum and maximum amount of Value Added generated by the downstream companies that is driven by fragrances. Finally, we aggregated the results across product markets. We then scaled up the results to the global market (excluding the US and Canada) using 2017 GDP figures.

**Please contact IFRA for a technical report that outlines in detail the approach and assumptions that underpin this study.**



## Findings

### The contribution to GDP of the fragrance industry, measured as Value Added

**We estimate that the total Value Added generated by the fragrance industry is €7.2bn, derived from the operations of the fragrance industry and its suppliers, and from employees spending their wages.**

#### The fragrance industry's direct contribution to GDP

**We estimate that the contribution to GDP from fragrance manufacturing and blending (including R&D and supporting activities) globally (excluding the US and Canada) is €2.5bn.**

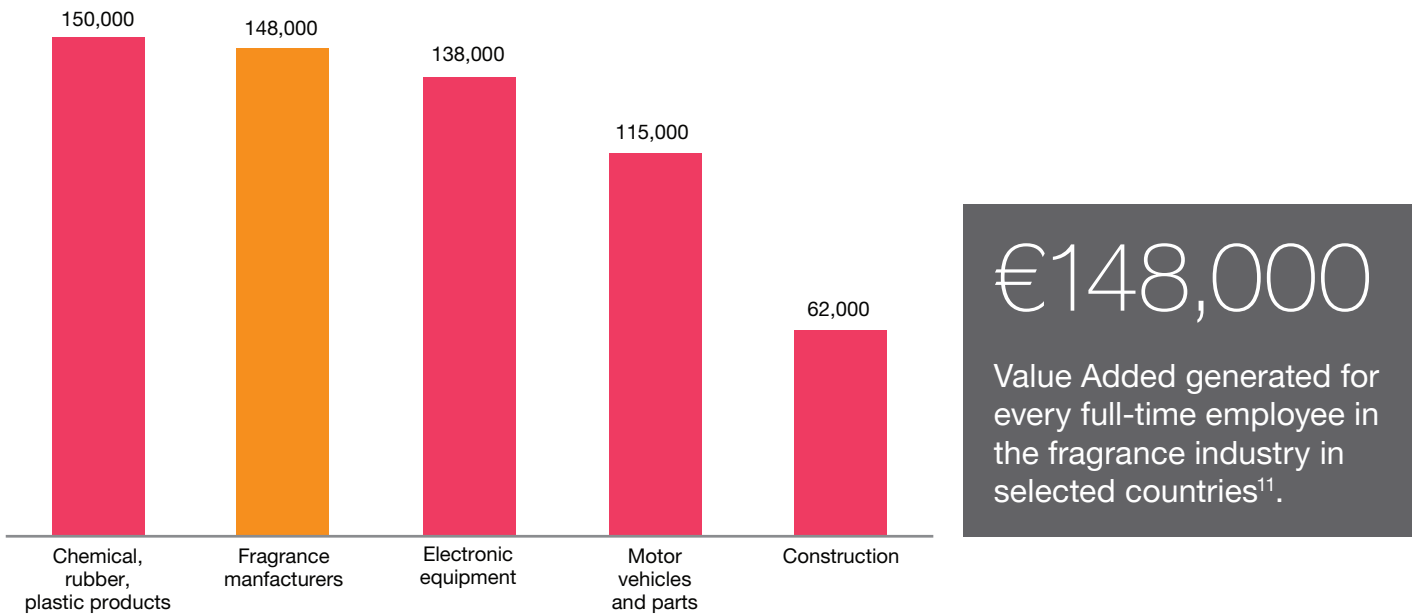
The creation of fragrances and subsequently the generation of Value Added requires workers that are proficient in Science, Technology, Engineering and Maths (STEM), thereby allowing the fragrance industry to play an important role in upskilling the workforce.

Furthermore, through large R&D investments, the fragrance industry stimulates innovation and contributes to productivity increases in a country.

We estimate that the fragrance industry (i.e. the manufacturers covered by this study) generates €135,000 for every person they employ through their manufacturing and blending operations (including R&D and supporting activities). Considering the industry in the UK, Germany and Switzerland only, this is more pronounced and increases to €148,000 per employee, which is significantly more than the automotive sector with €115,000 Value Added per employee, as shown in Figure 9<sup>12</sup>.

<sup>12</sup> Figures represent the industry Value Added per employee numbers averaged across the UK, Germany and Switzerland.

**Figure 9: Value Added (€) per employee, industry comparison for selected countries**



We estimate that the fragrance industry invests approximately 8% of net sales in R&D.<sup>13</sup> This is double the European Union average for large global companies at 4.0% and higher than all sectors other than pharmaceuticals and technology hardware.<sup>14</sup> Globally (excluding the US and Canada), the fragrance industry spends €584m on R&D, based on estimated sales of €7.3bn.

Despite the comparatively small market size (€9.7bn globally, including the US and Canada) of the fragrance industry, it is an important industry that supports larger industries upstream (through its spending with suppliers) and downstream (through selling to large consumer product

industries). Figure 10 below outlines the comparative size of the industries. The figures are not apportioned to the fragrance component of the fine fragrance and consumer products.

**Figure 10: Comparison of global sales across upstream and downstream industries<sup>15</sup>**



<sup>13</sup> Average number for R&D investments for fragrance and flavour companies, based on 2017 figures published by IFF, Givaudan, Symrise and Firmenich.

<sup>14</sup> The 2018 EU Industrial R&D Investment Scoreboard, available online at <http://iri.jrc.ec.europa.eu/scoreboard18.html>.

<sup>15</sup> Facts & figures of the European chemical industry, available online at <http://www.cefic.org/Documents/RESOURCES/Reports-and-Brochure>.

<sup>16</sup> Based on data published by P&S Market Research.

<sup>17</sup> FAO Stat for 2016 (latest data available), available online at <http://www.fao.org/faostat/en/#data/QV>.

<sup>18</sup> Global sales, based on data collected from fragrance manufacturers as part of this study.

<sup>19</sup> Global sales in 2017, based on 25 product categories analysed in this study.



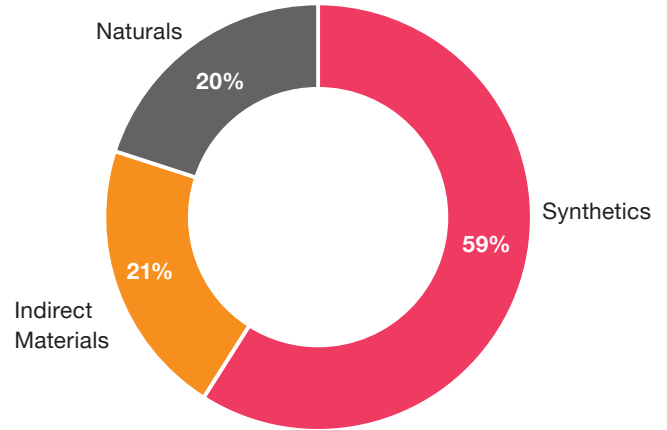
## Supply chain and employee spend contribution to GDP

The fragrance industry's direct contribution is only part of the industry's total contribution to GDP. In order to estimate the total contribution, the direct contribution needs to be combined with the contribution generated through its supply chain spend and the spending of the employees of the manufacturers and suppliers.

**We estimate that the spending of the fragrance industry (all its operations excluding the US and Canada) on naturals, synthetics and indirect materials enables €3.6bn of Value Added to be generated by the direct operations of suppliers. The spending of wages by employees of the fragrance industry and its suppliers add another €1.1bn of Value Added.**

The data we collected shows that more than half of the upstream spend is on synthetics (59%), while the rest is split nearly evenly between naturals and indirect materials (Figure 11). However, this split can vary across fragrance manufacturers.

**Figure 11: Fragrance industry's supply chain spend broken down by category**

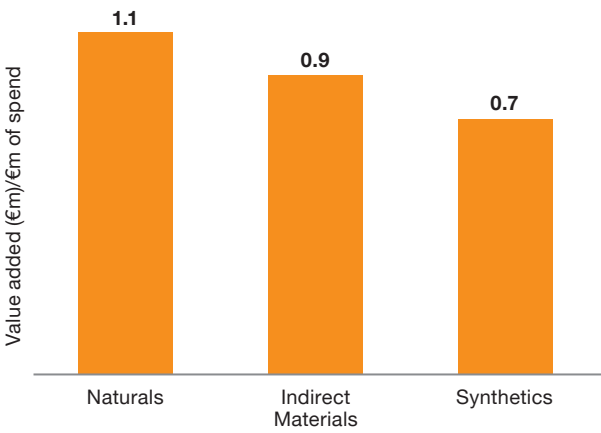


**Through the sourcing of naturals, the fragrance industry enables the employment of 250 FTEs per €m spent with its suppliers.**

Despite the large spend on synthetics, the Value Added generated per euro spent is largest for naturals. As shown in Figures 12 and 13, naturals generate larger Value Added and employment for every euro spent relative to the other two categories.

Our data shows that the Value Added generated varies across regions. For example, we estimate that the Value Added generated from synthetic ingredients in Europe and Asia-Pacific is 31% and 56% respectively.

**Figure 12: Value Added per €m of spend by the fragrance industry**



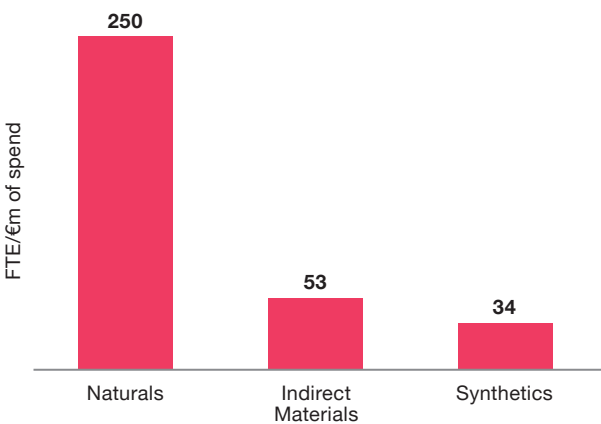
**€4.4bn**  
 Total contribution to GDP enabled by the fragrance industry through supply chain spending.<sup>20</sup>

The difference across categories is very significant for employment contribution (Figure 13). This is because the fragrance industry mainly procures naturals from countries in APAC, LATAM and Africa that rely on traditional labour-intensive methods for production purposes.

It should be noted that we base our findings on data provided by companies participating in the data collection exercise. This data identified 41 countries of supply. However, the fragrance industry sources ingredients and materials from other countries too. Including data from IFEAT on sourcing locations for naturals, sourcing locations increase to 54 countries.

**€1.1m**  
 Value Added per €m spent by the fragrance industry to source naturals.

**Figure 13: Employment per €m of spend by the fragrance industry**



**250**  
 Number of FTEs per €m spent that are supported by the fragrance industry through sourcing of naturals.

<sup>20</sup> This figure represents the direct contribution of the suppliers to the fragrance industry's global operations (excluding the US and Canada) and the contribution from spending by the suppliers' employees.

## The contribution to the employment of the fragrance industry

We estimate that the total contribution to employment supported by the fragrance industry is 415,000 FTEs, who are employed by the fragrance industry and its suppliers. This number also includes employment supported through employee spending.

### Direct contribution to employment

We estimate that the fragrance industry employs approximately 15,000 FTEs at their global operations (excluding the US and Canada).

This figure includes employees in manufacturing and blending, R&D and supporting activities.

### Supply chain and employee spend contribution to employment

Beyond those directly employed by the fragrance industry, nearly 325,500 jobs are supported in the rest of the economy by the spending of the fragrance industry with local and international suppliers.

89% of this employment contribution comes from Asia. The predominance of Asia is primarily due to India, China and Indonesia who are the largest producers of important naturals such as mint, cedarwood and patchouli. Close to 5% of the total upstream employment is generated in Latin America and Africa combined. As we received supply chain

data from only a subset of the companies covered by the survey, our estimates cover a limited number of African and Latin American countries. Therefore, the results of our assessment are conservative estimates of the industry's contribution upstream. In particular, data collected from IFEAT, as part of this study, show that the fragrance industry procures substantial amounts of naturals from countries such as Kenya, Rwanda, Ethiopia, Zimbabwe and Peru, thus generating employment and Value Added in these countries.

Wages spent by employees of the fragrance industry and its suppliers support a further 74,500 jobs in sectors such as retail, financial, social and personal services sectors.

# 89%

Proportion of employment supported in the supply chain in Asia, primarily in India, China and Indonesia, who are the largest producers of important naturals such as cedarwood and patchouli.

Figure 14: Overview of the fragrance industry's contribution to GDP and employment

	Value Added (€bn)	Employment (FTEs)
Direct contribution	2.5	15,000
Contribution from employee spending (from wages paid by the fragrance industry)	0.3	11,000
<b>Total</b>	<b>2.8</b>	<b>26,000</b>
Contribution from supply chain spending	3.6	325,500
Contribution from employee spending (from wages paid by the suppliers)	0.8	63,500
<b>Total</b>	<b>4.4</b>	<b>389,000</b>
<b>Total contribution of the fragrance industry</b>	<b>7.2</b>	<b>415,000</b>
<b>Total contribution from supply chain spending and employee spending</b>	<b>4.8</b>	<b>400,000</b>
<b>Total contribution from employee spending</b>	<b>1.1</b>	<b>74,500</b>

Figure 15: The fragrance industry's contribution from supply chain spending broken down by spend category

	Naturals	Synthetics	Indirect Materials	Total
Contribution to GDP from supply chain spending (€bn)	1.0	1.9	0.8	<b>3.6</b>
Contribution to GDP from employee spending (from wages paid by suppliers) (€bn)	0.2	0.4	0.2	<b>0.8</b>
<b>Total</b>	<b>1.2</b>	<b>2.3</b>	<b>1.0</b>	<b>4.4</b>
Contribution to employment from supply chain spending (FTEs)	197,000	105,000	23,500	<b>325,500</b>
Contribution to employment from employee spending (from wages paid by suppliers) (FTEs)	21,000	34,500	8,000	<b>63,500</b>
<b>Total</b>	<b>218,000</b>	<b>139,500</b>	<b>31,500</b>	<b>389,000</b>



## The contribution of fragrances to Value Added generated by the fragrance industry's downstream customers

**We estimate that the fragrance element of downstream fine fragrance and consumer products generates Value Added between €48bn and €72bn globally, excluding the US and Canada.**

We have focussed on the products that use fragrances and included over 25 product categories with many hundreds of different products from floor polish to laundry care products. The estimated sales of these products globally (excluding the US and Canada) is €357bn.

Fragrances allow downstream companies to differentiate their products and facilitate innovation among them. Fragrances provide emotional as well as functional benefits and there is general agreement that fragrances contribute to the consumers' purchasing decisions.

We have estimated the proportion of Value Added generated by downstream companies that is driven by the fragrance element of products. However, given the lack of publically available, granular and robust data on the importance placed by consumers on the fragrance element of different products, any specific estimates are likely to be spurious.

As a result, we have estimated a range for the proportion of Value Added that is attributable to fragrances, using a range of studies and product expert opinion. Those showed that the percentage of price that the consumer is willing to pay for the fragrance element in the product categories we analysed ranged from 12% (the lowest value) to 30% for colour cosmetics and 75% to 88% (the highest value) for perfumes.

Our analysis finds that depending on the importance attached to fragrances by consumers, estimates of contribution to downstream Value Added range from €48bn to €72bn globally, excluding the US and Canada.

We found that there was significant variation of the attributed Value Added in the home care/cleaning market. We therefore analysed air fresheners, scented candles, and fabric care separately. The results of our assessment are outlined in Figure 16 and show that the largest part of Value Added is attributed to products in the personal care and cosmetics market (€28bn to €45bn).

**Figure 16: Range of Value Added attributed to fragrances, by product market (€m) and estimated market size (€m), globally (excluding the US and Canada)**

Product category	Value Added: Min	Value Added: Max	Market size/Sales
Fine fragrance	9,133	10,655	30,374
Personal care, incl. cosmetics	28,228	45,137	244,173
Home care/cleaning	2,373	3,404	26,571
Air fresheners and scented candles	1,224	1,446	5,571
Fabric care	6,886	11,275	50,284
<b>Total</b>	<b>47,844</b>	<b>71,917</b>	<b>356,973</b>

€48bn – €72bn

The range of Value Added downstream generated by the fragrance element of fine fragrance and consumer products globally, excluding the US and Canada.

10x

The Value Added downstream is approximately up to ten times larger than the Value Added by the fragrance industry (€7.2bn)

## Overview of results

Socio-economic contribution of the fragrance industry

### Upstream suppliers

#### Naturals

##### Employment



##### Value



#### Synthetics

##### Employment



##### Value

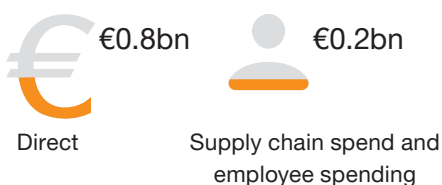


#### Indirect materials

##### Employment



##### Value

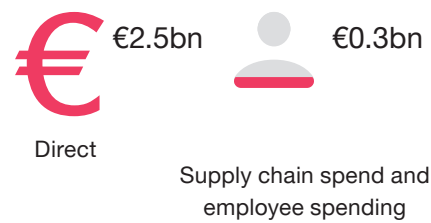


### Fragrance industry

##### Employment



##### Value



Socio-economic contribution of consumer manufacturers and retailers attributed to fragrances

### Downstream customers

Value  
€48-72bn



Calculated based on the market size in 25 product categories, globally (excluding the US and Canada), which we estimated to be €357bn in 2017.



## Conclusions and next steps

The value chain of the fragrance industry is global and sophisticated. We therefore developed a simplified version of the value chain, which was agreed with IFRA's members. Our study focussed on the key components of this value chain.

Our assessment shows the fragrance industry's Value Added and employment, generated by the activities of the fragrance industry and its suppliers, as well as from the wages paid to their employees. We estimated that in 2017, the industry generated €7.2bn in Value Added and supported 415,500 jobs. The results represent the global industry, excluding activities of the fragrance industry in the US and Canada.

Fragrances are considered to be a combination between science and creativity. We estimated that the fragrance industry spent €584m on R&D to develop and deliver fragrances to its downstream customers. With 8% of net sales, the industry's estimated R&D spend is double the European Union average for large global companies.

Upstream we found that for every €m spend, the fragrance industry generated €0.8m of Value Added and supported 89 FTEs. Procurement of naturals produced

the highest contribution with €1.1m of Value Added and 250 FTEs per €m spend. The difference across categories is very significant for employment contribution because the fragrance industry mainly procures naturals from countries in APAC, LATAM and Africa that rely on traditional labour-intensive methods for production purposes.

The fragrance industry, with an estimated global revenue of €7.3bn (excluding the US and Canada) is a comparatively small industry, but it delivers fragrances to the fine fragrance and consumer products industries that are worth €470bn globally. We therefore also looked at the importance of fragrances, focussing on 25 product categories in the fine fragrance, personal care (including cosmetics), and home care/cleaning markets. We found that globally, excluding the US and Canada, the fragrance element of the consumer products contributed between €48bn and €72bn to the Value Added generated by the manufactures and retailers of these products. Our assessment focussed on 25 material product categories and therefore the downstream Value Added from the fragrance component could be larger when taking into consideration all products.



## Next steps

The study was designed to enable IFRA and its members to better articulate the value created by the industry and the fragrances themselves to regulators, governments, policy makers and other stakeholders.

IFRA can use the global results as well as regional breakdowns to demonstrate to its stakeholder the Value Added and employment that the fragrance industry generates through its own activities and that it enables through its spending on key ingredients and materials.

Our assessment of the global socio-economic contribution of the fragrance industry was based on data collected from 14 fragrance manufacturers with global and regional operations. We scaled the data received to the global activities of the fragrance industry, excluding the US and Canada, assuming that the characteristics of the sample are representative of the wider industry. Further research and data collection from the fragrance industry – in particular in relation to its contribution to downstream customers and consumers and at a regional and country level – will help to improve the representativeness and robustness of the results.

The insights gained on the importance of fragrance for fine fragrance and consumer products demonstrated the fragrance industry's role in enabling innovation and brand differentiation downstream at consumer product manufacturers and retailers. Additional research could help to further define the value for key product categories.





## Contact details

If you would like to find out more about this study and how measuring your socio-economic contribution can benefit your organisation, please contact:

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IFRA and PwC would like to thank the following people for their valuable contributions to the report:

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**David O'Leary**  
Communications Director

**Joe Fabbri**  
Consultant

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