

THE HUGGARD CONSULTING GROUP

**THE HOUSEHOLD CARE AND PROFESSIONAL CLEANING AND HYGIENE
PRODUCTS INDUSTRY**

A SOCIO-ECONOMIC ANALYSIS

January 2016

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EXECUTIVE SUMMARY

Public Benefits

Socio-economic analyses (SEAs) explain the complex contribution that industries, their technologies, and their value chains make to modern societies. SEAs highlight public benefits, rather than private gains, of business activity. Used well, SEAs provide a link between the aspirations of citizens and the activities of businesses.

This SEA, undertaken by The Huggard Consulting Group for AISE, focuses on some of the most important public benefits created by the Household Care and Professional Cleaning and Hygiene Products Industry (“the industry”) and its value chain.

The Industry

Complex products, formulated by the industry, touch the lives of every European, every day. In our homes, they meet, at low cost, our needs for protection from disease and infection, for comfort, appearance, and pleasure, for longer-lasting consumer durables, and for freer, less onerous lifestyles.

Indirectly, they benefit us as well. Food and drink is safer and cheaper; offices, factories, and schools are cleaner and more pleasant places to work; hospitals pose a lower risk of infection to patients; and our enjoyment of hotels, restaurants, cafes, and specialist food retailers is significantly enhanced.

Industry manufacturing output is approximately Euro 26.8 billion (sales measured at factory gate prices, excluding Value Added Tax) including net exports of almost Euro 3 billion.

Manufacturing activity takes place throughout the EU, Switzerland, and Norway, and involves between 650 and 700 separate facilities, more than 85% of which are operated by small and medium-sized enterprises (SMEs). Output is, however, concentrated in 80-90 large-scale plants operated by multi-national companies.

The industry supports around 95,000 direct jobs across the EU, Switzerland, and Norway, taking into account all business functions.

Today’s Living Standards

In modern economies, wealth and employment are most frequently created because ideas and technologies are brought together to produce complex products and services, adding value through progressive stages of the production, distribution, and retailing process. This process of “up-grading” generates successive increases in value-added and employment, and is described as a “value chain”.

Europe’s wealth and employment benefit from the activities of the various participants in the industry’s value chain (and their associated supplier and induced multiplier impacts). It generates Gross Value Added (GVA) of approximately Euro 24.6 billion¹. Alongside this, it supports, directly and indirectly, more than 360,000 jobs.

¹ Gross Value Added (GVA) is a measure of the contribution of a company, or group of companies, or a sector, to national wealth. For economists, it measures the surpluses available to reward labour, governments, and providers of capital, after deducting the cost of bought-in goods and services from sales revenues.

Efficient Economy

Professional cleaning and hygiene technologies (comprising complex combinations of products, services, and equipment) supplied to business users enhance the productivity of a substantial part of Europe's economy. They enable businesses to use a wide range of resources, including labour, capital, energy, and raw materials, more efficiently. In overall terms, they help to deliver an "Efficient Economy", thereby underpinning European wage levels and enhancing the attractiveness of Europe as a location for investment.

In overall terms, the productivity of more than Euro 600 billion of Europe's private sector GVA, supporting over 19 million direct jobs, is significantly enhanced by the products, services, and equipment supplied by the industry's technologies and innovation. This is equivalent to 6% of Europe's private sector GVA and 11% of private sector employment².

The most important sectors affected are Food and Drink Processing, Pharmaceuticals, Hospitality and Contract Cleaning. Other sectors influenced include Medical Technology, Specialist Food Retailing (butchers, bakers etc.), and Textile Services.

Innovation and Future Prosperity

Innovation, primarily in improved product performance, is the most important driver of value-added in the industry. Moreover, product improvements made in the consumer sector frequently spill over into the professional cleaning and hygiene sector, where they are combined with service, process, and equipment innovation.

Significant innovation activity occurs within Europe. There are at least 15 major innovation centres in Europe owned by companies in the industry. Most form part of global networks of scientific and product development.

The scale of innovation in Europe by companies in the industry can be understood using two measures. Defined on the basis of expenditure on research and development (R&D) the companies invest 2-3% of turnover in innovation. An alternative method, based on the "resources consumed" during the horizontal business process of creating new or improved products and services, identifies 8-10% of turnover as being invested in innovation.

Conclusions

Household care and professional cleaning and hygiene products are an essential part of the lives of every European. Their public benefits are, however, easily overlooked. It is now appropriate to recognise the contribution that this important industry makes to Europe and its citizens. It protects and enhances everyone's quality of life. Its vibrancy is essential for our future. It is one of Europe's hidden "motors of innovation".

**The Huggard Consulting Group
January 2016**

² Private sector economic activity has been estimated for Europe by excluding from overall output and employment those sectors supported directly or indirectly by government activity (e.g. education and healthcare).

1. BACKGROUND

Socio-economic analyses (SEAs) explain the complex contribution that industries, their technologies, and their value chains make to modern societies. SEAs highlight public benefits, rather than private gains, of business activity, transforming perceptions, informing public policy debates, educating opinion-formers, and helping regulators make better, more balanced decisions. Used well, SEAs provide a link between the aspirations of citizens and the activities of businesses.

In 2015, AISE³, the trade association for the European Household Care and Professional Cleaning and Hygiene Products Industry, commissioned The Huggard Consulting Group to draw up an SEA focusing on the public benefits created by the industry and its value chain.

The study focuses on three groups of public benefits:

- **Today’s living standards** – The contribution of the industry, its technologies, and its value chain to jobs, wages, employment taxes, and wealth, including indirect benefits in supplier, distribution, and user industries, as well as induced effects, showing how the Household Care and Professional Cleaning and Hygiene Products Industry helps to sustain the economic well-being of Europeans in this period of recession, an issue of particular concern to citizens, policy-makers and politicians.
- **Today’s quality of life** – The complex ways in which the industry and its products shield citizens from disease, improve public health, enhance economic efficiency in user industries, strengthen core social values, facilitate modern lifestyles, protect consumer durables, enhance our enjoyment of where we live and work, and what we wear, and meet emotional needs linked to mood, self and place.
- **Future prosperity** – The scale and nature of investment in innovation by the industry, explaining how investments in ideas are its “lifeblood”, generating added value for customers, improving efficiency and environmental impact, and, over time, enhancing productivity, the strongest driver of growth in modern economies and one of the EU’s most important strategic priorities.

The principal findings and conclusions of The Huggard Consulting Group study are set out in this report.

2. STUDY OBJECTIVES

The objective of the study is to communicate to opinion-formers and decision-makers some of the most important public benefits created by the European Household Care and Professional Cleaning and Hygiene Products Industry, its technologies, and its value chain. It focuses on living standards, quality of life, and future prosperity, and examines the impact of both the professional and the consumer sectors of the industry⁴.

All results are aggregated and cover the EU-28 plus Norway and Switzerland.

³ Association Internationale de la Savonnerie de la Détergence et des Produits d’Entretien (AISE)

⁴ The use throughout this report of the terms “Europe” or “Europeans” refers to the Member States of the European Union (EU-28) plus Switzerland and Norway.

3. THE INDUSTRY

Complex products, formulated by the Household Care and Professional Cleaning and Hygiene Products Industry, touch the lives of every European, every day. In our homes, they meet, at low cost, our needs for protection from disease and infection, for comfort, appearance, and pleasure, for longer-lasting consumer durables, and for freer, less onerous lifestyles.

Indirectly, they benefit us as well. Food and drink is safer and cheaper; offices, factories, and schools are cleaner and more pleasant places to work; hospitals pose a lower risk of infection to patients; and our enjoyment of hotels, restaurants, cafes, and specialist food retailers is significantly enhanced.

Our needs are met by two distinctive parts of the industry: “consumer” and “professional cleaning and hygiene”.

For homes, the **consumer** part of the industry focuses on four main product categories: laundry care, hand and automatic dish wash, surface cleaners and air care. Within each category, value-added is delivered through a relentless focus on innovation supported by strong brand equity and cost competitiveness, so as to improve continuously the value of every product to the consumer. Innovation is driven by the ever-changing shifts in customer needs, high-levels of competitive intensity, and powerful retailers (with 85% of sales through supermarkets).

In the consumer sector, adding together retail sales in all product categories, six multi-national companies account for almost 65% of EU sales. Other manufacturers, many of whom compete nationally, account for nearly 20% of total EU sales, with the remainder supplied as own label brands to retailers. The largest competitors in the branded sector include Procter & Gamble, Unilever, Henkel, Reckitt Benckiser, SC Johnson, and Colgate Palmolive, whilst McBride and Dalli Group are the largest EU-suppliers of own label products.

For businesses, the **professional cleaning and hygiene sector** supplies specialised products, supported by technical advice, expert services, and equipment, for a wide range of sectors and cross-sectoral applications.

These include:

- Technical cleaning of industrial processes (such as the manufacture of pharmaceutical, cosmetics, and personal care products)
- Kitchen and catering applications in restaurants, hotels, canteens, offices, schools, and hospitals
- Specialist cleaning and disinfection in hospitals, nursing homes, and day care facilities
- Hygiene and cleaning products for food and drink processing and speciality food retailing
- Building care products and services, for contract cleaning and in-house janitorial teams, in commercial, institutional, and industrial buildings
- Textile care products for rental services, commercial laundries, hotels, and health care providers

In this sector too, innovation is the main driver of value-added. Competitors focus on developing more focused products, services, and equipment designed to solve specific problems in individual applications or sectors. Whilst Ecolab, Diversey, and Procter and Gamble Professional, three global

multi-nationals, are the largest companies in this sector, customer needs are also met by hundreds of SMEs, mostly operating in national markets or focusing on serving particular niches.

Taking both sectors together, industry output is approximately Euro 26.8 billion, measured on the basis of sales at factory gate prices, excluding VAT, and including net exports (Exhibit 1)⁵.

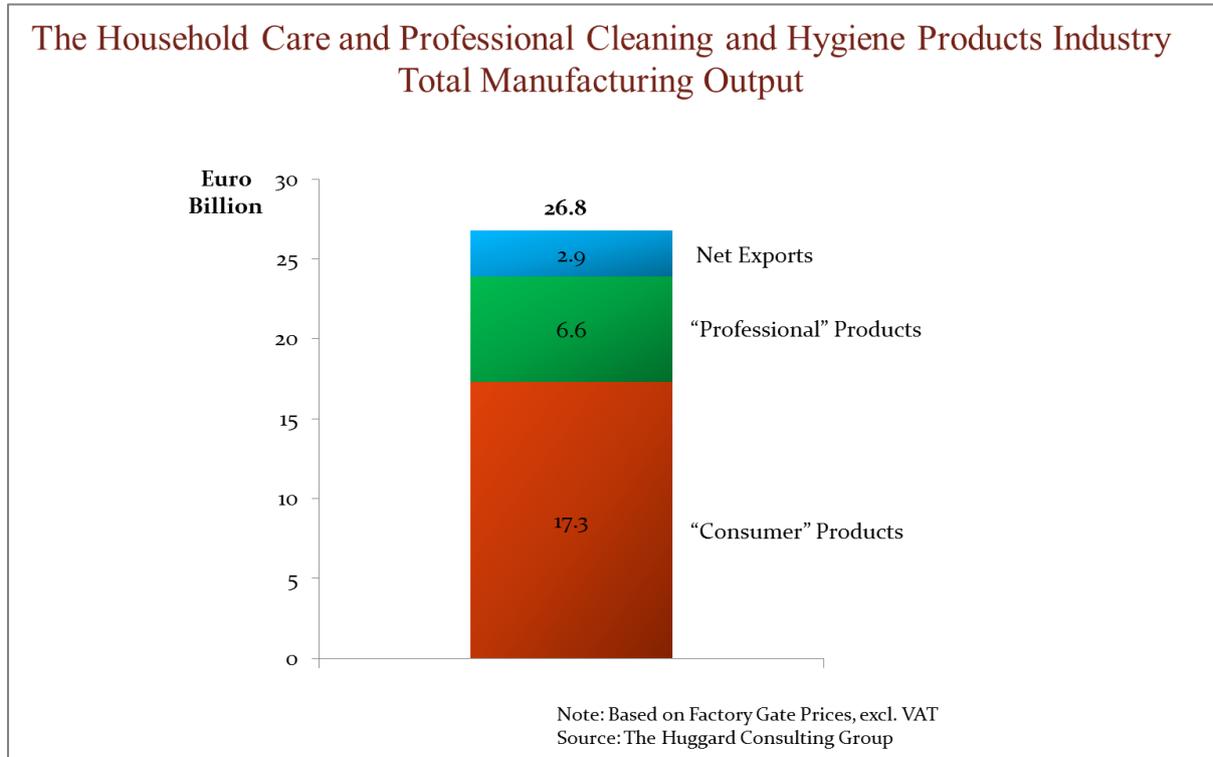


Exhibit 1: The Household Care and Professional Cleaning and Hygiene Products Industry – Total Manufacturing Output

Sales to consumers in the EU account for almost 65% of output from EU production facilities, with the remainder made up of sales of professional products to EU business-business markets (25%) and net exports, primarily sales of consumer products to a wide range of markets in Eastern Europe, the Middle East, Africa, China, and the United States (10%). In value terms, net exports are almost Euro 3 billion.

Manufacturing activity takes place throughout the EU, Switzerland, and Norway, and involves between 650 and 700 separate facilities, more than 85% of which are operated by small and medium-sized enterprises (SMEs). Output is, however, concentrated in 80-90 large-scale plants operated by multi-national companies. Most are highly efficient, advanced manufacturing facilities, utilising relatively high levels of capital supported by skilled labour. High productivity supports, in turn, attractive wages and working conditions. These large facilities focus upon supplying a limited number of product lines to a large number of EU countries, as well as to export markets where appropriate. They normally form part of a network of sites that, working together and making use of complex logistics, are able to supply entire product ranges to customers across Europe. Geographically, these large sites are concentrated in Germany, UK, France, Italy, Spain, the Benelux countries, and Poland.

⁵ Output is measured on the basis of factory gate prices charged by manufacturers, excluding sales taxes. Sources of data include: Eurostat; OECD tax database; annual accounts and other published sources; Euromonitor estimates of purchases through retail outlets, adjusted for retailer margins and output VAT charged to final customers; AISE estimates of sales to professional and hygiene customers, excluding VAT; and estimates of net exports derived from UN Comtrade international trade statistics.

Production is only one of the activities carried out by the industry in Europe. Other important activities include global, European, and national management; financial control; distribution and logistics, research and development; new product development, marketing (including global category management); sales; technical support; and human resource management. **Taking all of these functions into account, the industry supports approximately 95,000 direct jobs across the EU, Switzerland, and Norway⁶.**

4. TODAY'S LIVING STANDARDS

4.1. The Household Care and Professional Cleaning and Hygiene Products Value Chain in Europe

In modern economies, wealth and employment along with other public benefits are most frequently created because ideas and technologies are brought together to produce complex products and services, adding value through progressive stages of the production process. This often culminates in the final purchase of the product or service (which contains the embedded ideas or technologies) by consumers and business customers who satisfy multiple, complex functional and emotional needs. This process of “up-grading” generates successive increases in value-added and employment, and is described as a “value chain”.

The creation, supply and consumption of the industry's products generates wealth, jobs, and other public benefits in Europe through two distinct sequential phases of economic activity, along with indirect (supplier) and induced multiplier impacts:

- **Manufacturers** – Across Europe, manufacturers of household care and professional cleaning and hygiene products create wealth and employment through innovation to develop new and improved products, services and equipment; through investment in and utilisation of an extensive network of production and logistics facilities; through expenditure on marketing, advertising, sales promotion, and sales; through the provision, to business customers, of technical support, after-sales service, training, and equipment; and through expenditure on co-ordination and management services. Taken together, these activities produce a wide range of products for three markets: European consumers; European professional customers; and non-European consumers (through export markets). The overall value of annual output supplied to these markets, measured at the factory gate and excluding VAT, is Euro 26.8 billion, of which nearly Euro 3 billion is exported to markets outside Europe.
- **Retailers** – In the final stage of the value chain, end consumers in Europe purchase laundry care, fabric conditioning, dish washing, surface cleaning, and air care products manufactured by the Industry. They do this primarily through grocery retailers (85% of purchases by value), and also through pharmacies, para-pharmacies, and drug stores (9%). European consumers spend Euro 28.5 billion (including VAT) annually in these retail outlets, and this creates further jobs and wealth.
- **Supplier Impacts** – Manufacturers and retailers within the value chain purchase raw materials, goods, and services from other European-based businesses (known as “bought-in goods and services”) to support the creation, production, distribution, and sale of household care and professional cleaning and hygiene products. This sustains, through a multiplier process, wealth, jobs, employment costs, and labour taxes in suppliers, generating further economic benefits for Europe.

⁶ Estimates of direct employment supported by the activities of the industry are based on a “whole company” model. This reflects all of the business activities needed to support economic activity, not just employment in manufacturing plants. Estimates have been developed using a wide range of sources including company accounts; other published sources; Eurostat; OECD databases; and proprietary databases and models.

- **Induced Impacts** – Where jobs are supported directly or indirectly (through purchases by manufacturers or retailers) by the industry’s value chain, additional consumption spending occurs within households. In turn, this generates additional economic benefits for Europe. This is a form of multiplier and is taken into account in this study on a conservative and indicative basis.

4.2. Wealth – Gross Value Added Impacts

Europe’s wealth benefits from the activities of the various participants in the Household Care and Professional Cleaning and Hygiene Products value chain (and their associated multiplier impacts).

At each stage of the value chain, goods are sold to customers. After recovering the cost of bought-in goods and services, this process creates surpluses⁷. Some of the surpluses are used to pay for direct labour and associated taxes (i.e. total employment costs); whilst the remainder provides profit that is then shared between government (through taxes on profit) and providers of capital (through payments of dividends and of loan interest).

Economists call these surpluses, generated at the level of the firm, industry or sector, “Gross Value Added” (GVA). It is measure of the contribution to annual wealth. Broadly speaking, when all individual contributions are added together this is known as Gross Domestic Product (GDP). Clearly this is not the same, at the level of an industry, as output or sales.

The Household Care and Professional Cleaning and Hygiene Products value chain generates annual Gross Value Added (GVA) of approximately Euro 24.6 billion (Exhibit 2).

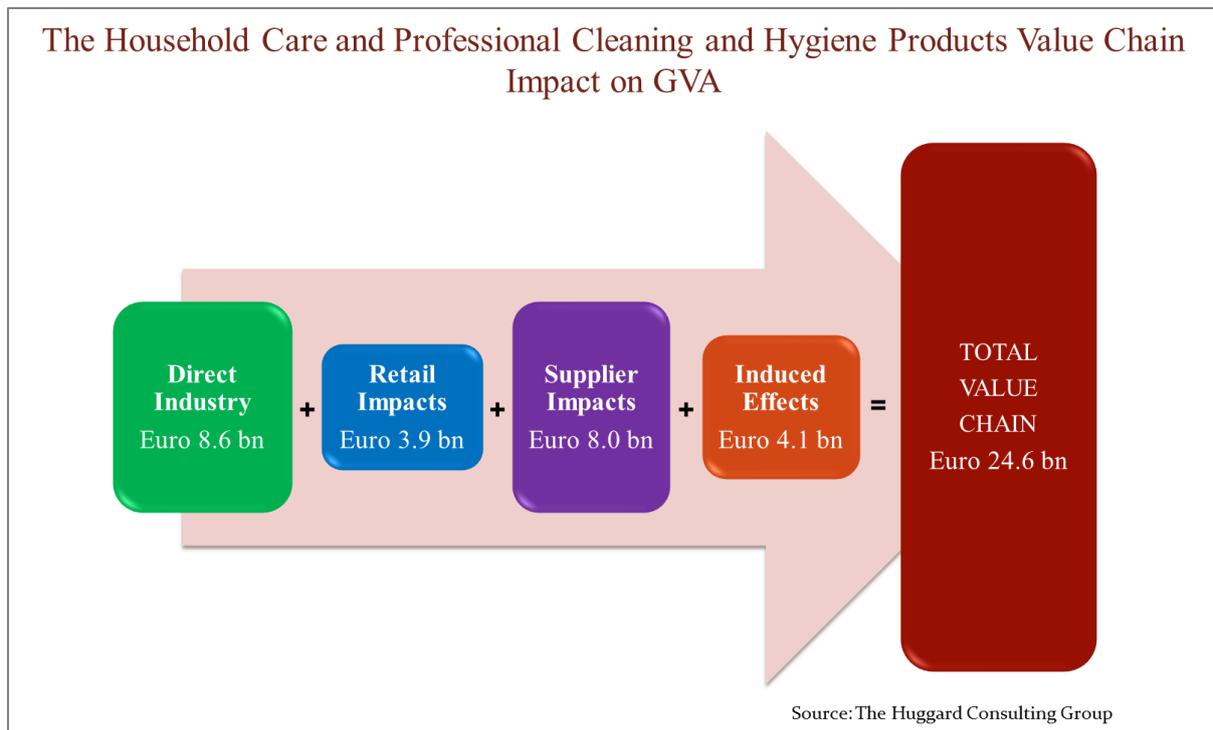


Exhibit 2: The Household Care and Professional Cleaning and Hygiene Products Value Chain – Impact on GVA

Creation of GVA begins with the activities of the manufacturers (“Direct Industry”). This accounts for Euro 8.6 billion (35% of value chain GVA). Sales of consumer products through retail outlets

⁷ For this industry, typical “bought-in goods and services” include: raw materials, such as specialty chemicals; packaging; utilities and energy; machinery; and, advertising and sales promotion services and media.

generate a further Euro 3.9 billion (16%), with the remainder being created through spending by the direct industry and retailers with European-based suppliers (32%) and through induced multiplier impacts (17%).

4.3. Jobs – Employment Impacts

Alongside the creation of wealth, the activities of the Household Care and Professional Cleaning and Hygiene Products value chain support more than 360,000 jobs (Exhibit 3).

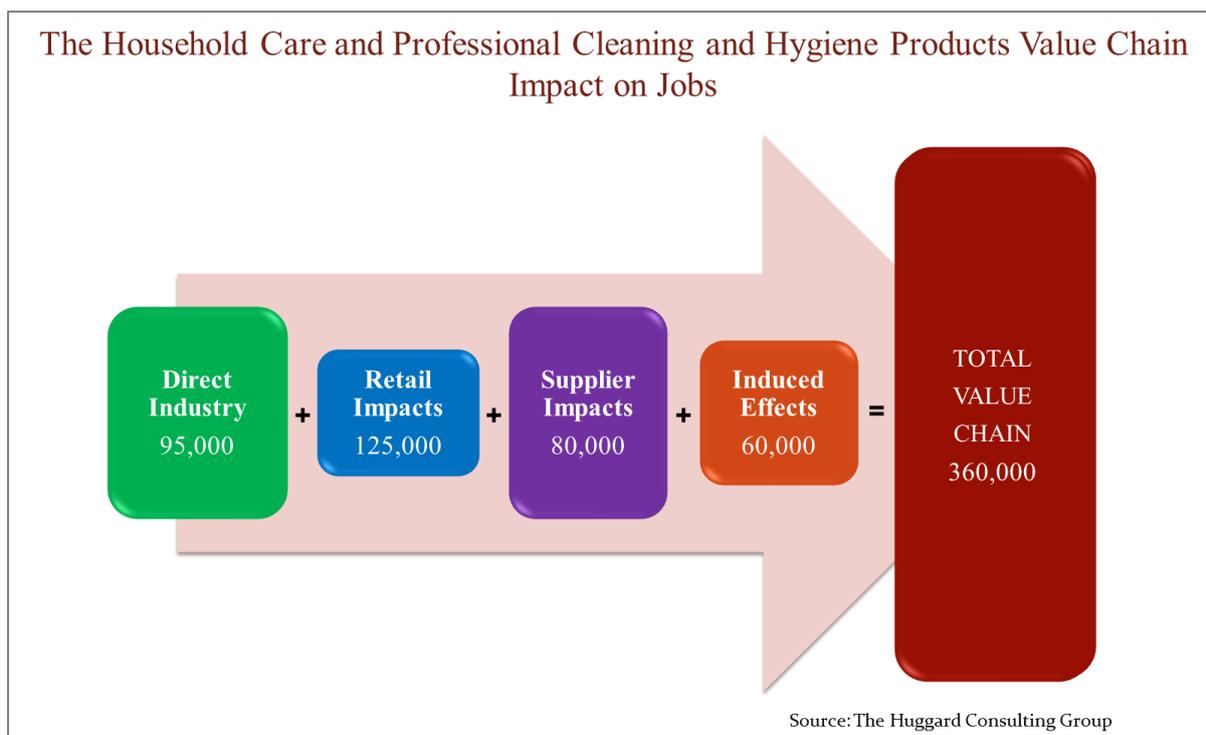


Exhibit 3: The Household Care and Professional Cleaning and Hygiene Products Value Chain – Impact on Jobs

The activities of the Direct Industry generate approximately 95,000 jobs (26% of total value chain employment), whilst sales of consumer products through retail outlets support over 125,000 jobs (35%). Purchases of bought-in goods and services, by retailers and manufacturers, from European-based suppliers supports a further 80,000 jobs (22%), with the remainder resulting from increased household spending – induced impacts (17%).

4.4. Labour Costs and Taxes

Support for jobs results in expenditure by all participants in the value chain on employment costs (gross salaries and wages, pension and other benefits, bonuses, and labour taxes – employee and employer). **Throughout the value chain as a whole, encompassing manufacturing, retail, and suppliers, it is estimated that employment costs of Euro 11.8 billion are paid out, including labour taxes of Euro 5.3 billion.**

5. TODAY'S QUALITY OF LIFE

5.1. Consumer Products (Household Care)

Household care products directly improve the quality of life for every European, every day, and they achieve this at low cost. Specifically they:

- **Protect our health** – Household care products keep our clothes, dishes, surfaces, and homes clean, they eliminate bacteria, and they lessen the risk of illness.

Combined with good personal hygiene practices, household care technologies help to protect against food-borne and other forms of infection, such as Norovirus. Indeed, through this process, there are savings in public health costs⁸.

The extent of risk to health posed by food-borne disease is easily overlooked. It remains, according to the World Health Organisation, an important public health problem in developed as well as developing countries. It affects in particular babies, young children, the elderly and the sick⁹. Household care products, when used well, help to manage these risks.

Modern surface cleaners, for example, provide targeted products for specific applications, and power cleaners for even greater efficacy.

- **Make our lives more pleasurable and satisfying** – Household care products help to enhance the appearance and enjoyment of our clothes, surfaces, and homes. They help to build self-confidence, esteem, and a sense of self, stimulating our senses, creating moods, and demonstrating care for our families and homes.

Innovative air care products provide an example. They remove the malodours that result from modern living whilst at the same time releasing fragrances that help to create mood and atmosphere in the home.

- **Facilitate modern lifestyles** – Many citizens place a high value on being able to care for their clothes and homes rapidly and effectively, making efficient use of their limited time. Speed and convenience are much sought after, as is the opportunity to make environmentally-friendly choices when buying and using consumer products of all types. Modern household care products help citizens achieve all of these goals.

Laundry care products, for instance, allow clothes to be cleaned at lower temperatures (saving money and reducing environmental impact), keep colours fixed, remove dirt and staining, and eliminate complex malodours associated with modern fibres.

- **Improve the durability of investments in household goods** – Increasingly large numbers of homes contain significant investments in high quality kitchens, bathrooms, kitchen appliances, glassware, crockery, and cutlery. Many are, of course, highly valued for their economic cost but some also have emotional attachments for their owners. Protecting these assets, whilst at the same time ensuring high standards of cleanliness, is a priority for most citizens. Household care products help consumers satisfy these needs.

⁸ Recent expert discussions suggest that good personal hygiene practices, combined with effective use of household care products, could cut the incidence of infections, such as Salmonella and Norovirus, by 30%, leading to savings in public health costs. In the Netherlands alone, experts argued that such savings could amount to more than Euro 150 million each year. (Source: NVZ International Seminar on Hygiene, 2015)

⁹ The European Food Safety Agency (EFSA) reports more than 320,000 human cases of food-borne zoonotic disease each year in the EU. Indeed, this is believed to be an underestimate. (Source: EFSA)

Complex automatic dishwasher products remove dirt, grease, and bacteria, as well as enhancing the appearance of cookware, crockery, glassware, and cutlery. Through advanced formulations they also ensure that the interiors of dishwashing machines are cleaned and protected, allow washes to take place more quickly, and reduce the need to add additional salt and rinse aid.

Surface cleaners provide further examples. Application-specific cleaners target grease and dirt in specific places such as ovens, protecting the efficacy of the appliance, enhancing its durability, and protecting households from infection. New surface cleaners protect laminate work surfaces too, filling in small cracks thereby improving appearance and wear, and reducing opportunities for bacteria to flourish. Fabric conditioners, laundry detergents, and additives help to extend the durability of clothing, as well.

- **Contribute to sustainability** – Producers have consistently invested in reducing the impact of household care products on the environment. Formulations have been changed to use more ecologically benign substances for delivering cleanliness and hygiene. Products, and associated packaging, have been further improved to reduce the quantity of materials used, thereby reducing environmental footprint. Multi-purpose products have been introduced too, delivering greater convenience to customers whilst reducing materials consumption. Energy needed to ensure effective cleaning has been reduced as well through the introduction of products that achieve high levels of efficacy at lower temperatures.

In a period of less than 30 years, laundry care products have delivered major improvements in sustainability. Less material is used due to the switch from powders to gels, tablets, and recently to unit doses. Greater use has been made of enzymes to remove complex stains and malodour. New formulations, supported by consumer information campaigns, enable wash cycles to be shorter and to be undertaken at lower temperatures. Similar progress has also been made in automatic dishwasher products, where concentrated unit doses now account for 80% of the market.

- **Strengthen core social values** – Since its inception in the second half of the 19th Century, the industry has helped citizens to enjoy greater freedom from the chores of keeping clothes, surfaces, dishes, and homes clean. Most importantly, it has helped to free women from this role, providing greater opportunities for work and leisure choices, and supporting improved gender equality. In the latter half of the 20th Century, new household care products emerged that helped citizens to express themselves emotionally at low cost, facilitating personal choice and individual freedom.

Surface cleaners, for instance, allow homes to be cleaned quickly and at low cost. Laundry detergents and dish wash products have, along with improvements in appliance technologies, freed women from the drudgery of wash day and from the time-consuming every day effort of protecting family and home from dirt and disease.

5.2. Professional (Professional Cleaning and Hygiene Products, Services and Equipment)

Additional and widespread improvements in the quality of life of all Europeans are delivered through the use of professional products, services, and equipment, supplied by the industry, in a wide range of industrial, commercial, and institutional contexts. Specifically, such products and related services and equipment:

- **Protect from disease** – Infectious diseases remain one of the most important causes of illness in Western countries. They are of particular concern in industrial, commercial, and

institutional environments, because the scope for extensive harm, due to systemic contamination, is greater. Economic impacts are greater as well, because involuntary exposure to hazards produces reduced availability of labour along with higher healthcare expenditures.

Tailored packages of advanced professional cleaning and hygiene products, services, and equipment, supplied to business customers, play a major role in managing risks to health by delivering cleanliness, removing dirt, and killing bacteria systematically. These packages help, for example, to cut iatrogenic risk, limiting the risk of infection for patients, guests and staff in hospitals and other health care institutions from multi-resistance germs and other similar hazards¹⁰. This helps to improve patient safety¹¹.

Good disinfection in animal breeding produces further benefits for human health by reducing the use of antibiotics.

Similarly, professional hygiene and cleaning products, and associated services and equipment, limit the risk of infection in industrial and commercial workplaces, as well as delivering desired standards of cleanliness.

Achieving modern standards of food safety in food and drink processing, in food preparation in hotels, restaurants, and canteens, and in specialist food retailers (such as bakers and butchers) would be extremely difficult without these complex professional packages of cleaning and hygiene products, services, and equipment.

Indeed, modern societies have come to rely on professional cleaning and hygiene technologies for safe food and safer healthcare: two things that are all too often taken for granted by Europeans.

- **Protect investments in brands** – The sophisticated professional packages provided to business users contribute to investments in brands in important ways. Brands are one of the most important forms of intangible asset for modern companies, and a major source of global competitive advantage for Western businesses.

In the pharmaceutical, medical technology, and food and drink industries, these packages reduce the risk of infection and contamination, thereby protecting the reputation of well-established businesses and their brands. Product recalls, because of safety concerns, threaten the value of all food and drink businesses, for instance.

In contrast, complex packages of professional hygiene and cleaning technologies contribute significantly to the quality of service and the overall customer experience in hospitality industries, helping to define the meaning of service brands. They help, for example, to differentiate the offer made by branded hotel chains through the provision of distinctive fragrance experiences offered consistently in public and private areas, as well as through meeting expected and system-wide standards of laundry care, safe food, and clean and hygienic washrooms and bathrooms. Failure to achieve this, erodes consumer satisfaction, reduces re-purchase, and reduces the value of service brands.

¹⁰ Estimates from the World Health Organisation (WHO) suggest that, at any time, over 1.4 million people worldwide suffer from infectious complications acquired whilst in hospital. (Source: AISE)

¹¹ Approximately 4 million patients are estimated to acquire a healthcare-associated infection in the EU each year. At least 37,000 deaths occur as a direct consequence of these infections. Experts believe that 20-30% of healthcare-associated infections are preventable by intensive hygiene and control programmes. (Source: European Centre for Disease Control)

- **Underpin modern lifestyles** – Europeans today expect choice and safety, when purchasing food and drink products, when visiting or being treated in healthcare institutions, and when using advanced pharmaceuticals, and medical equipment. Freedom to make choices and the trust that governments and producers will ensure that such choices are safe, are unstated characteristics of the way in which Europeans live their lives. Technologies supplied to businesses and institutional users by the industry play a significant part in maintaining that trust.

In healthcare, for instance, these technologies reduce the risk of infection, but also improve labour productivity in cleaning, thus contributing to cost containment and resource efficiency.

5.3. Efficient Economy

In separate and more complex ways, the professional cleaning and hygiene technologies supplied to business users provide additional economic benefits to Europe and its citizens. They enhance the productivity of a substantial part of Europe's private sector. This helps to deliver an "Efficient Economy".

For modern, mature economies, the most important way in which living standards can be raised is through improvements in productivity, making better use of existing resources of capital, labour and materials. Achieving this is not easy and depends, primarily, on innovation. In many cases this is provided by technologies purchased from up-stream suppliers in the form of complex materials or equipment, or advanced packages of products, services, and technologies. Economists describe this as "bought-in innovation": it is a form of "spillover".

For significant parts of Europe's private sector economy, professional cleaning and hygiene technologies, comprising complex combinations of products, services, and equipment, provide an important source of "bought-in innovation", enhancing resource efficiency and productivity.

In overall terms, the productivity of more than Euro 600 billion of Europe's private sector GVA, supporting over 19 million direct jobs, is significantly enhanced by the products, services, and equipment supplied by the professional cleaning and hygiene sector of the industry. This is equivalent to 6% of Europe's private sector GVA and 11% of private sector employment (Exhibit 4).

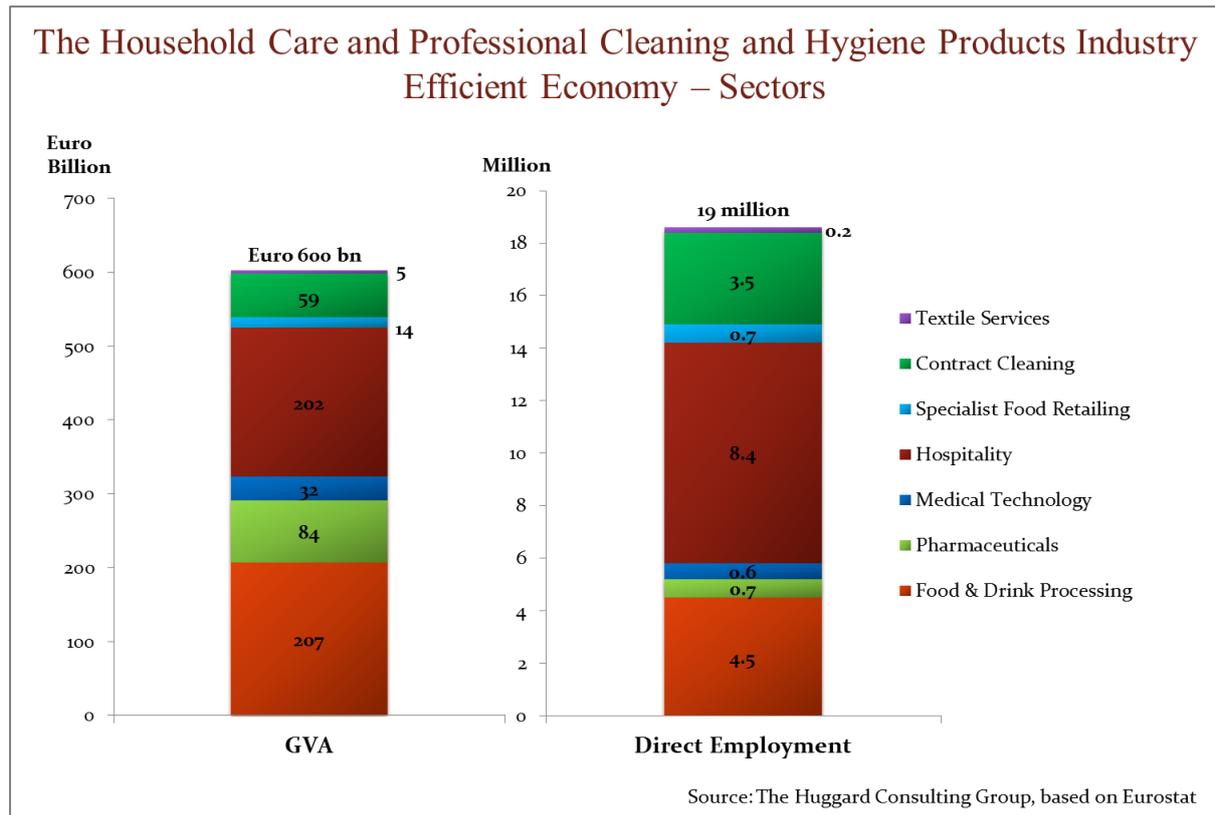


Exhibit 4: The Household Care and Professional Cleaning and Hygiene Products Industry: Efficient Economy

In terms of GVA, the most important sectors affected are Hospitality, Food and Drink Processing, Pharmaceuticals and Contract Cleaning. Other sectors influenced include Medical Technology, Specialist Food Retailing (butchers, bakers, fishmongers, etc.), and Textile Services (rental and cleaning of linen for use in institutional and hospitality facilities). There is a similar pattern in terms of employment, with the exception of the greater importance of Contract Cleaning and the reduced importance of Pharmaceuticals.

Downstream sectors benefit from professional cleaning and hygiene technologies because, properly used, they improve the efficiency of use of a wide range of resources, thereby enhancing overall productivity.

In the Food and Drink Processing industry, for example, complicated combinations of cleaning and hygiene products, services, and equipment, clean and disinfect production equipment more rapidly and with greater efficacy, increasing labour productivity, reducing downtime between batches, increasing batch sizes, cutting cycle times, and facilitating investment in larger, specialist facilities. Taken together, these improvements increase the productivity of capital and labour in the Food and Drink Processing industry, as well as increasing its global competitiveness and ensuring food safety meets modern standards.

Similar gains occur in the Pharmaceuticals, Medical Technology, and Specialist Food Retailing sectors.

Today's large-scale Contract Cleaning industry is a consequence, in part, of professional cleaning and hygiene technologies. In the Contract Cleaning industry, labour accounts for more than 80% of costs. Productivity of this vital resource is enhanced because of the availability of bespoke combinations of complex hygiene and cleaning products, specialised cleaning equipment, and expert services, including training, work programmes and processes, and technical support. This enables suppliers to deliver low cost, high quality, consistent cleaning services to their customers. It also facilitates the

growth of large-scale Contract Cleaning companies, because of improvements in the consistency of activity.

A vibrant Contract Cleaning industry creates an additional benefit for Europe's economy, one that further enhances efficiency. It facilitates outsourcing and hence stimulates new investment into commercial and industrial opportunities by removing the fixed costs of janitorial activities.

There are similar overall impacts in the Hospitality sector, because of its high level of labour utilisation in cleaning and food preparation, and in the Textile Rental sector. Professional cleaning and hygiene product technologies help textile rental businesses to improve labour and energy productivity (faster, more effective washing and fabric care), to increase the life of textile assets, and to meet service standards demanded by customers.

All of these improvements, when taken together, strengthen the competitiveness of a significant part of Europe's private sector and, because of their impact on labour productivity, underpin and secure the wage levels that Europeans enjoy. They also make Europe a more attractive location for investment by global providers of capital.

Simply put, professional cleaning and hygiene technologies help create the efficiencies that allow Europe to pay better wages whilst still remaining competitive.

6. INNOVATION AND FUTURE PROSPERITY

6.1. Creation of Value-Added

Innovation, primarily in improved product performance, is the most important driver of value-added in the industry, confirming a trend that began with its origins in the latter half of the 19th Century in Europe and the United States. Moreover, product improvements made in the consumer sector frequently spill over into the professional sector, where they are combined with service and equipment innovation.

Throughout its long life, the industry has sought consistently to satisfy the hygiene, cleaning and maintenance needs of households and businesses on a daily basis at reasonable cost. It has achieved this through investment in innovation that has delivered consistent improvements in performance, quality, and value that are enjoyed by every European, every day.

Investment in innovation is a response to three factors: continuing shifts in functional and emotional customer needs, communicated rapidly through everyday purchase patterns and world-leading market research; the concentrated buyer power of grocery retailers, the main form of outlet for household care products; and the very high-level of competitive intensity of an industry led by 5-6 well-funded, sophisticated MNCs.

Significant innovation activity occurs within Europe, a reflection of the historic origins of many of the leading companies, the scale and sophistication of the European market, and the excellence of the European "science base". There are, for example, more than 15 major innovation centres in Europe owned by companies in the industry. Most form part of global networks of scientific and product development.

6.2. Nature and Scale of Investment

Measuring the true scale and nature of investment in innovation in Europe by household care and professional cleaning and hygiene products companies is difficult, and there are a number of alternative interpretations.

Using “traditional” measures employed by the OECD and the European Commission, innovation investment is defined on the basis of expenditure on research and development (R&D). On this basis, and using information contained in the published accounts of leading companies, the industry invests 2-3% of turnover in innovation.

Whilst this measure does have the attraction of being based on accounts-type data, of providing a measure of investment in science and of being consistent with data from other sectors, it has significant weaknesses. It elides together the concept of investment in science with the development of new or improved products or services. This may be a satisfactory proxy measure of innovation in high-technology and other business-to-business sectors, such as Aerospace or Pharmaceuticals, but it fails to capture the way in which innovation takes place in customer facing sectors such as the household care and professional cleaning and hygiene products sector.

An alternative approach is based on estimating the “resources consumed” during the horizontal business process of creating new or improved products and services. This reflects the way in which innovation occurs in an industry rather than the accounting conventions used to measure R&D. If this approach is used then the Household Care and Professional Cleaning and Hygiene Products Industry invests 8-10% of turnover in innovation.

This economic measure recognises that companies invest in science (2-3% of turnover), new product development (1-2%), and manufacturing, sales and marketing (4-5%) whenever new or improved products are placed on the market. In a market where strong brands predominate and where consumers seek to satisfy emotional as well as functional needs, product introductions are, for example, supported by strong advertising and sales promotion (ASP) campaigns. In the EU, these are generally not seen as significant for high-technology sectors.

It is, however, important to be prudent when using this alternative measure. Only part of the ASP expenditure of the industry has been included, for example. This recognises that ASP expenditure is also used to support existing products and to underpin wider brand values. A similar approach, focusing only on expenditure needed to launch new or improved products, has been taken to the inclusion of marketing, selling, and manufacturing resources.

6.3. Types of Innovation – Consumer

Innovation in both sectors of the industry is primarily customer focussed. In the consumer sector, innovation tends to follow three distinct themes, and each adds value to the economy by increasing consumer satisfaction and industry productivity. Specifically:

Creation of New Segments – All major participants in the industry seek to identify and satisfy emerging consumer needs, using world-leading market research and investments in science and product development. This can lead to the creation of new market segments. Recent examples include new delivery mechanisms to enhance product life and functionality in the air care market; colour detergents to protect modern garments; additives to remove tough stains; and wipes to improve the convenience and efficacy of surface cleaners (Exhibit 5).

Creating New Segments: Household Wipes

Many people in Europe lead increasingly busy lifestyles, yet they want their homes to be clean, hygienic and welcoming. Cleaning a house, however, can be time-consuming, and so many people are highly attracted by the idea of a product that helps them to clean their house effectively but with minimum time and effort. Household cleaning wipes have therefore grown significantly in popularity over the last decade. They are convenient, easy to use, disposable, portable and cost effective. Above all, they help to prevent cross contamination in the home, a very important issue in enhancing household hygiene and preventing the spread of disease.

The Household wipes segment has grown rapidly in recent years, and now encompasses a wide range of different applications. General purpose wipes include both disinfecting wipes and hard surface wipes for use in a wide range of situations including kitchens, toilets showers and baths. Other wipes have been customised for specific applications; such as furniture polish wipes, glass cleaners, silver and brass cleaners, stain removers and computer cleaning. Recent innovations include the development of more environmentally friendly wipes including biodegradable wipes and wipes based on recycled fibres and natural ingredients.

Exhibit 5: Creating New Segments: Household Wipes

Creation of Additional Value in Existing Segments – Companies seek to achieve this goal through a number of different strategies, including cost-of-use reductions; enhanced emotional benefits (particularly feel and smell); increased functionality; and improved convenience and ease of use.

Examples of innovations to reduce the cost-of-use for consumers include lower temperature detergent and automatic dish wash products; compaction and concentration in detergents and controlled dosing in dish washing.

Leading companies also seek to meet the emotional needs of consumers. Investments are made to enhance the pleasure experienced by consumers when they use household care products. Recent examples include the use of fragrance encapsulation technology to facilitate slower release of smell, and the creation of new and longer-lasting smells for surface cleaners, air care, laundry, and fabric conditioner products (Exhibit 6).

Create Additional Value Added in Existing Segments: Enhance Pleasure: Air Care Innovation

The Air Care sector is highly innovative, and has done much to create additional value added in recent years. The market has now reached in excess of Euro 2 billion in Europe as Air Care products have expanded from their traditional role in masking unpleasant odours in confined spaces such as bathrooms. Nowadays, they are used all around the home as consumers increasingly use them as a means of “decorating” their home to enhance mood and atmosphere. This has prompted the development of a very extensive range of fragrances that evoke different memories or places. Air Care products are also increasingly seen as enhancing wellness in specific situations, such as the use of lavender and other natural aromatherapy fragrances to aid sleep.

New delivery mechanisms have also been developed to increase convenience and enhance the consumer experience. These include battery powered air fresheners, plug-in devices, and automatic air fresheners with motion sensors. New encapsulation technologies have been designed to provide long lasting controlled release of fragrances. Some air fresheners now have micro-capsules that release a burst of fragrance while walking on particular floors or touching certain surfaces. Customisation is also possible such that the fragrance released changes throughout the day depending on the consumers’ mood or need.

Exhibit 6: Enhance Pleasure: Air Care Innovation

A further way in which mature segments are “refreshed” is through innovation in improved functionality. New laundry detergents, based on new cleaning technologies, have been introduced to remove the malodour problems associated with advanced, modern fibres, for example. In the automatic dish wash market, leading companies continuously improve the capability of products to deal with difficult problems, such as grease or carbonised food or glassware. An additional example is the introduction of “power cleaners” into the surface care sector (Exhibit 7).

**Create Additional Value Added in Existing Segments:
Improved Functionality – Power Cleaners in Surface Care**

Leading suppliers of surface care products have added value to the sector through their understanding of customer needs. Busy households, often with both partners working, need easy, convenient and time-efficient cleaning solutions that cater for two different cleaning occasions: the “thorough” clean versus the “maintenance” clean.

For customers looking for products for their “thorough” clean, the new “power cleaners” are driving sales, whereas for the “maintenance” clean, where convenience is a priority, multi-purpose cleaners and wipes are driving the market.

“Power cleaners” are high value products with a simple promise: to deliver out-standing cleaning results. These are often task-specific products, such as those designed specifically to tackle the removal of lime-scale, grease, and soap scum. These innovations have helped to grow the surface care market.

Exhibit 7: Improved Functionality – Power Cleaners in Surface Care

Finally, additional added value is created in existing segments through innovation to improve convenience and ease of use. An important example is the introduction “Unit Dose” technology into the laundry detergent market. These are single dose, pre-measured highly compacted liquid detergents enclosed in a water-soluble film. They offer the consumer high levels of performance combined with convenience as they are simple to use, carry and store, and they avoid the problem of over-dosing, which is common in many households. Further examples can be found in the automatic dish wash market, including the development of “3 in 1” dishwasher tablets (Exhibit 8).

**Create Additional Value Added in Existing Segments:
Improved Convenience and Ease of Use – “3 in 1” and Multi-Benefit Dishwasher Tablets Care**

Leading suppliers of surface care products have added value to the sector through their understanding of customer needs. Busy households, often with both partners working, need easy, convenient and time-efficient cleaning solutions that cater for two different cleaning occasions: the “thorough” clean versus the “maintenance” clean. More than half of all European households now own an automatic dishwasher, reflecting increasing affluence and the pressure on time in busy families. Using a dishwasher can save significant amounts of time per week, as well as produce cleaner and more hygienic dishes, as the washing is done at high temperatures, using highly efficient cleaning agents. The market for automatic dishwashing detergents has therefore grown significantly, now reaching nearly Euro 2.5 billion.

There are three main types of dishwasher detergent – powder, liquid/gel and tablets. Each contains deep cleaning agents that remove the toughest food residues and stains and gently scrub dishes and glasses to achieve high levels of cleanliness. But automatic dishwashers also require two other consumable products: rinse aid to ensure spot-free, shiny dishes and to assist in the drying function; and salt to protect the machine from lime-scale and to soften the water for better cleaning.

In recent years, multi-functional “3 in 1” and multi-benefit products have been developed by the leading companies in this market. They combine at least the detergent, the rinse aid and the salt (“3 in 1”) and frequently other benefits, such as glass protection, in one tablet. This innovation adds value to the product category and offers additional convenience for the customer. Some companies have taken the idea of convenience still further and provide this technology in a soluble wrapper-free shell.

Exhibit 8: Improved Convenience and Ease of Use – “3 in 1” and Multi-Benefit Dishwasher Tablets

Improved Environmental Impact – Leading companies invest in evolving the materials used in household care products, as well as reducing cost-in-use, in response to customer desires for ecological choices. Regulatory requirements, reflecting similar shifts in social attitudes, amplify these trends. Examples of innovation include changes in formulation in laundry detergent and automatic dish wash markets, and the availability of lower temperature textile and dish wash products that deliver unchanged levels of functionality. The recent AISE Low Temperature Washing Initiative is another example of this (Exhibit 9).

**Improving Environmental Impact:
The AISE Low Temperature Washing Initiative**

In 2013, AISE launched the “I prefer 30°” campaign, as part of its commitment to drive improvements in sustainability within the Laundry Care sector. The aim is to promote the benefits of low temperature washing to consumers and to lower the average temperature at which laundry takes place, hence reducing the overall energy consumption of the household laundry process.

The greatest environmental impact of household laundry activity comes from the energy consumed by the washing machine to heat the water. In Europe, the average wash frequency is 3.2 times per week; over 35 billion laundry loads are washed every year. The average laundry washing temperature across Europe is 41°C. Consequently, a wash temperature reduction could significantly improve the overall sustainability profile of the laundry process.

Today’s household detergents are sophisticated formulations, designed to meet a diverse and demanding set of cleaning requirements and conditions. In recent years, special attention has been given to improve washing performance at low temperatures. These detergents designed for lower washing temperatures do not have a higher impact on the environment compared to conventional products.

The campaign educates consumers about the benefits of low temperature washing, whilst also providing guidance to ensure that there are no potential side effects for performance or hygiene. The majority of loads and laundry items can be adequately washed at 30°C, only certain items need to be laundered at higher temperatures to ensure appropriate hygiene.

The campaign has so far focused on five countries (France, UK, Italy, Belgium, Denmark), which represent over 40% of total European laundry energy usage. If a reduction of wash temperature by 3°C could be achieved in these five countries then this could reduce the energy consumption for laundry washing by 1.307 GWh/yr, which corresponds to 14% of the current total.

The AISE initiative is a multi-stakeholder campaign that includes retailers, appliance manufacturers, fashion manufacturers, governments and NGOs.

Exhibit 9: The AISE Low Temperature Wash Campaign

6.4. Types of Innovation – Professional Cleaning and Hygiene

In the professional sector, companies supply business and institutional customers with a wide range of cleaning and hygiene products, technical service, processes, equipment and machines, process control systems, and training. Some customers may only require products, whilst other larger and more complex customers will purchase bespoke packages that will be application-specific (such as building cleaning and maintenance) or sector-specific (such as dairy production). Investment in innovation reflects the complex offer made to customers of products, services and equipment. Specifically:

Horizontal solutions – Certain applications, such as washroom care, floor cleaning, building care, and food preparation, require similar solutions across a whole range of industrial, commercial, and institutional customers. Recent innovations include new motorised floor cleaners, improved dispensing equipment, and new combinations of equipment, products, and training designed to deliver improved cleaning and asset durability for stone floors. Similar innovation has taken place in carpet care (Exhibit 10).

Horizontal Innovation: Carpet Care in High Traffic Areas

Large numbers of customers in the professional cleaning products sector face the problem of how to achieve high levels of carpet cleanliness whilst ensuring that high traffic areas in offices, hotels and other buildings can be used at all times. The industry has developed solutions that combine improved cleaning products with improved cleaning equipment, specifically designed to clean carpets fast, to a high specification and with minimum drying time.

The Dry Foam Carpet Care System is one example. It is an integrated package comprising a low speed floor machine with low vibration and noise levels, special dry foam brushes, and a dry foam generator that dispenses a highly effective cleaning foam in line with the customers cleaning specification.

It achieves very high levels of performance both immediately after carpet cleaning as well as resistance to re-soiling over time. This is combined with very fast drying times of approximately thirty minutes.

This integrated package has major benefits to customers in offices, hotels and other public buildings. It minimises interruptions to foot traffic and hence ensures that the area can be used at all times. The results achieved contribute to upholding the appearance of important public areas, which, in certain situations (such as hotels), can contribute to the overall brand. It also improves the efficiency of the cleaning process and reduces the frequency with which carpets need to be cleaned. This reduces labour costs.

Exhibit 10: Carpet Care in High Traffic Areas

Vertical solutions – These meet all of the complex hygiene, cleaning, and maintenance needs of specific industries. Investment in innovation is targeted at developing “systems solutions”. Typical examples include improved systems for the Pharmaceuticals, Hospitality and Food and Drink Industry. Indeed, some of the most complex professional cleaning and hygiene systems solutions focus on different parts of the food and drink industry (Exhibit 11).

Vertical Solutions: Integrated System for the Food and Beverages Industry

Highly complex cleaning situations, such as those found in the Food and Beverage Industry, require sophisticated and bespoke cleaning solutions to ensure that highly stringent hygiene standards are met at all times.

The professional cleaning and hygiene sector of the industry has responded by creating specialist integrated systems that are specially designed to meet the needs of this industry. Led by people who are experts in the cleaning and hygiene needs of the food and beverage industry, the service combines high performing portfolios of specialist products, specialist equipment (such as “Cleaning in Place”, foam equipment, and controlled dosing), high levels of technical advice, training, and systems management. These are tailored to meet the specific needs of, for example, the brewing and beverage sector, the dairy industry, and the processed food industry. These will be supported by other horizontal building care, personal care, and laundry care products, equipment and advice.

Exhibit 11: Integrated System for the Food and Beverages Industry

Worker and Environmental Safety – Companies also innovate to make their products less hazardous for workers and the environment, thereby recognising the concerns of users and citizens. Recent examples include formulation improvements and the increased use of super concentrates and associated dispensing systems (Exhibit 12).

Worker Safety: Super-Concentrates and Dispensing Systems

Worker safety has been enhanced through the development of super-concentrated products and associated dispensing systems. These dispensing systems can be used with a wide range of cleaning concentrates for hard surfaces, sanitary areas and floors.

Dispensing systems have been designed to suit a variety of different workplace situations. These range from wall mounted automatic dilution systems for larger sites that use a number of concentrates, to portable dilution systems for smaller sites. These dilution systems dispense the same dosage each time, ensuring that over-dosing is eliminated, thereby improving worker safety whilst also raising efficiency and reducing costs.

Exhibit 12: Super-Concentrates and Dispensing Systems

7. CONCLUSIONS

Household care and professional cleaning and hygiene products are an essential part of the lives of every European. Directly and indirectly, they protect from infection, enhance pleasure and satisfaction, lengthen the lives of valued assets, contribute to sustainability, facilitate modern lifestyles, and strengthen our core values as Europeans. They help businesses protect from infection, and build and protect global brands. Crucially, they significantly enhance the productivity of large parts of Europe's economy.

These public benefits are, however, easily overlooked. For over 150 years, the industry has steadily invested in innovation, focusing on customers, delivering better performance and value, and keeping costs low.

It is now appropriate to recognise the contribution that this important industry makes to Europe and its citizens at many levels. It protects and enhances everyone's quality of life. It is one of Europe's hidden "motors of innovation".

**The Huggard Consulting Group
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