

### 3 EU CONSUMPTION OF PPE

#### 3.1 Market size

The market for PPE in the EU (15) is estimated to have been about US\$ 7.7 billion in 2000. The market for traditional workwear and uniforms declined in the period 1998-2000 in favour of more specialist protective clothing. The market for protective equipment increased steadily in the same period. Germany remained the most important market for PPE within the EU with a market share of 28 percent, followed by UK (almost 20%), France (14%), Italy (11%) and The Netherlands (5%). Total (average) expenditure per employee varied from US\$ 75 for users of traditional workwear to US\$ 520 of users of one or more PPE products (respectively US\$ 70 and 500 in 1998) mainly caused by an increased demand for protective equipment (almost 5% during the period 1998-2000).

Table 3.1 Market size for PPE and workwear in the EU and major markets, 2000 (in US\$ mln)

	EU (15)	Germany	UK	France	Italy	Nether-lands	Other EU countries
Traditional workwear	2,792	931	519	382	298	131	531
Uniforms	949	261	185	160	73	46	224
Protective clothing	1,126	285	216	161	124	82	258
<b>Total clothing</b>	<b>4,867</b>	<b>1,477</b>	<b>920</b>	<b>703</b>	<b>495</b>	<b>259</b>	<b>1,013</b>
Other PPE							
Footwear	872	228	176	121	82	40	225
Gloves	1,014	214	233	146	152	43	226
Head, face and respiratory	980	257	192	120	115	73	223
<b>Total PPE</b>	<b>7,733</b>	<b>2,176</b>	<b>1,521</b>	<b>1,090</b>	<b>844</b>	<b>415</b>	<b>1,687</b>

Demand for PPE is a function determined (among others) by:

- number of employees and their profession;
- measures by law, like the law on health and safety in the working place, (the so-called ARBO/-Factories Act and the EU-PPE legislation). These governmental and EU measures resulted in an increasing consciousness regarding safety in working circumstances and concerns a broad range of protective products besides clothing, i.e. also other safety products, from helmet to safety shoe;
- investments often derived from (expected) economic developments;
- investments derived from increasing need for security;
- change from uniforms to more casual fashion;
- fashion influences (styles as well as colours), mainly in workwear but also in footwear. Demand for the traditional coverall or boilersuit decreased in favour of jacket and trouser or bib and brace combination. The use of thermal wear (body-warmers, waist coats, jackets (incl. quilted jackets and anoraks) grew;
- influence from competitive products, for instance the market share of competitive products like disposable clothing grew, mainly caused by hygienic aspects;
- corporate identity for medium and small enterprises can be obtained by choosing special (house) colours, fabrics and embroideries. In this case no special design or large quantities are necessary.

Trends for the coming years:

- Increasing spending on fire fighting, catastrophe control and emergency services
- Manufacturing activities will decrease further in favour of activities in the service industry.
- Total workforce will stabilise, while the number of female employees as well as part-time employees will increase. Workforce in several sectors will increase, especially in the retail sector (extended opening hours) and in the health and care sector (ageing population).
- Increasing privatisation (among other factors) will lead to an increase in smaller companies.
- The market for workwear will slightly decrease in the coming years in terms of volume and stabilise in terms of value, which indicates a small growth in prices. The PPE market will slightly increase in terms of volume against higher prices, caused by technical innovations and usage of

specialised fabrics for protective clothing. The total PPE market is estimated to grow by 3-4 percent annually.

### 3.2 Market segmentation

About 80-90 million people in the EU wear corporate clothing and/or use other PPE products. This concerns professional clothing of the traditional workwear type (49%), image and/or careerwear (26%), uniforms (8%) and protective clothing (17%). Protective clothing is often combined with traditional workwear or uniforms. The most important categories of end-user sectors for PPE are the sectors manufacturing, construction, mining, agriculture and public services (firefighting, defence, police etc.), while for traditional workwear all categories are important. However, specific segments can be distinguished for the sectors retail, hotels/restaurants and health care with their own specific type of clothing. The proportion in the EU workforce between male and female was 56/44 in 2000, while this ratio was 62/38 in 1994.

Table 3.3 Number of workforce by various market segments in the EU (15), 2000  
(in thousands)

	2000	Using:						
		Work-wear	Protect. clothing	Gloves	Foot-wear	Head-gear	Breathing, eye and ear protection	Fall protection
<b>Agriculture etc.</b>	<b>6,500</b>	xxx	x	xx	xx	-	xx	-
<b>Industry</b>	<b>46,100</b>							
– Mining and quarrying	400	xxx	xx	xxx	xxx	xxx	xxx	x
– Manufacturing	32,300	xxx	xx	xx	xx	x	xx	-
– Electricity, gas, water supply	1,200	xxx	xx	xx	xx	x	x	x
– Construction	12,200	xxx	xx	xxx	xx	xxx	x	xx
<b>Services</b>	<b>104,500</b>							
– Wholesale and retail, repairs	23,500	xxx	-	x	x	-	-	-
– Hotels and restaurants	6,400	xxx	xx	x	x	-	-	-
– Health care	15,900	xxx	xx	xxx	xx	x	-	-
– Transport, communications	9,600	xx	-	x	x	-	-	-
– Financial/business activities	17,900	-	-	-	-	-	-	-
– Public services	12,300	xx	xx	xx	xx	x	xx	x
– Other services	18,900	x	-	xx	x	-	-	-
<b>Other</b>	<b>500</b>	x	-	-	-	-	-	-
<b>Total</b>	<b>157,600</b>							

Notes: - = none or very light usage; x = light usage; xx = medium usage; xxx = heavy usage

Source: based on Labour force survey by Eurostat

**Agriculture etc.** besides agriculture this also includes horticulture, forestry and fishing. Employment force consists for 89 percent of agri- and horticultural workers. This sector is confronted with a downturn in employment levels, resulting in decreased demand for traditional workwear. Protective clothing is used to reduce exposure by workers who are directly or indirectly involved in pesticide applications. The relation between men and women is 67/33.

**Manufacturing** covers 70 percent of total industrial employment and can be divided into heavy and light industry. Heavy industry includes metal and metal products industry, machine construction and glass, while light industry includes petro- and chemical, electronic/technical, food, wood and paper, printing and publishing, furniture, transport, textile and clothing industry. Other industrial activities in the EU are public utilities etc. The men/women ratio in manufacturing is 72/28.

Employment in the **building and construction** covered 55% building, 30% installation and 15% finishing, while female participation is limited to 8 percent.

The number of workforce in the **trade** sector can be divided into employment in retail (50%), wholesale (40%) and car trade (incl. repairs) 10%. Retail covers department stores, supermarkets, butchers, chemists, hairdressers, grocers etc. The men/women ratio in this sector in total is 55/45, with

major differences between the segments distinguished, namely car trade (85/15), wholesale (70/30) and retail (40/60).

**Hotel, food and catering;** characteristic for this sector is the wide variety in functions with each specific workwear. Kitchen, reception, serving and cleaning workers have all specific (traditional) uniform workwear. The number of male and female workers in this sector is almost the same (47/53). Hygiene is of great importance in the food and catering business to produce healthy, bacteria-free food. There are many different colours of clothing in this sector, but the dominant colour is white because this colour is usually connected with hygiene and cleanliness. Tabards and aprons became very popular often combined with short jackets.

The **health care and welfare sector** employed 15.9 million persons, of which 75% women, in 2000. About 25% of the total workforce in this sector had employment in hospitals; many of them are nurses. The traditional all-white nurses' dresses remained popular, however some suppliers offer many colours: several blue colours, green, yellow, turquoise, pale grey etc. The nurses' ensemble (jacket and trouser) became more popular. Another 15% worked in other health care sectors like dental, veterinary etc. The welfare sector consisted of workers in old people's homes, home help etc..

Nurse's apparel is made of conventional fabrics, since no specific requirement is needed other than comfort and durability. Composite fabrics are used for protective clothing in isolation wards and intensive care units. More advanced technologies, like membranes, are used for woven fabrics with breathing properties as well as guaranteed impermeability for blood and body fluids, even after 75 washings. Applications are garments (aprons) for surgeons and dentists. In this sector, nurses' dresses are replaced by tunics and trousers, while the traditional colours like white in Germany and The Netherlands, just like blue in the UK, are increasingly being replaced

**Transport and communication** covers public transport, like (national) railways, regional or local public transport (autobuses, trams etc.), post and telecommunications. An important number of the employees uses workwear, mostly uniforms. Wearers of workwear in road (cargo) transport are more limited. Post office and service uniforms have changed completely in some West European countries in the last decade, from traditional costumes of heavy fabrics to uniforms (incl. outdoor jackets, sweaters etc.) with a casual look, comfortable in working circumstances and enforcing the corporate image.

**Public services** include governmental and local authorities. The leading wearers of uniforms belong to this sector, namely defence, police, fire brigades, customs, prisons, etc. often combined with several kinds of protective equipment.

**Financial services** include banks, building societies, insurance, investment brokers etc.. More and more banking companies introduce corporate wear for employees, in particular for counter/desk personnel, while **business services** include among others security companies (uniforms), car rental services, other rental companies, cleaning companies etc. It should be noted that these companies cover only a small part of the broad range of service activities without any links to workwear or protective equipment.

**Other services cover cultural activities as well as workers in theatres, movie houses, charity organisations, but also waste processing, sanitation.**

The category **Other** includes, among others, domestic servants.

Table 3.3 Number of workforce by economic activities in selected markets within the EU, 2000  
(in thousands)

	Germany	UK	France	Italy	Netherlands
<b>Agriculture etc.</b>	<b>1,020</b>	<b>470</b>	<b>1,020</b>	<b>1,220</b>	<b>260</b>
<b>Industry</b>	<b>12,480</b>	<b>7,340</b>	<b>6,130</b>	<b>6,900</b>	<b>1,690</b>
– Mining and quarrying	175	110	50	70	15
– Manufacturing	8,480	4,990	4,320	4,850	1,160
– Electricity, gas, water supply	355	210	190	190	50
– Construction	3,470	2,030	1,570	1,790	465

<b>Services</b>	<b>22,800</b>	<b>19,690</b>	<b>16,050</b>	<b>12,980</b>	<b>5,450</b>
- Wholesale and retail, repairs	5,980	4,290	3,130	3,430	1,250
- Hotels and restaurants	1,290	1,270	820	670	270
- Health care	3,340	2,630	2,500	2,290	820
- Transports, communications	2,010	1,780	1,770	1,120	420
- Financial intermediation	1,290	1,230	830	660	290
- Business activities	2,430	2,760	1,920	1,290	770
- Public services	3,050	1,620	2,090	1,720	530
- Other services	3,410	4,110	2,990	1,800	1,100
<b>Total</b>	<b>36,300</b>	<b>27,500</b>	<b>23,200</b>	<b>21,100</b>	<b>7,400</b>
Male/female ratio	56/44	54/46	55/45	62/38	57/43

Source: based on Labour force survey by Eurostat

### 3.3 Developments in selected markets within the EU

#### 3.3.1 Germany

Germany possesses the world's third most technologically powerful economy (after USA and Japan), with its capitalist market system tempered by generous welfare benefits. Domestic demand contributed to a moderate economic upswing in early 1998, although unemployment remains high. Germany's aging population, combined with high unemployment, has pushed social security spending to a level exceeding contributions from workers. The modernization and integration of the East German economy remains a costly long-term problem, with annual transfers from West Germany amounting to roughly US\$ 70 billion. Industry generates one third of GDP and covers the world's largest and most technologically advanced producers of iron, steel, coal, cement, machinery, chemicals, automobiles, machine tools, electronics, food and beverages, etc.. The German industrial production growth rate for 2000 was 4.7 percent.

The large German market for PPE can be divided into a slightly diminishing market for workwear (stabilisation is expected for the coming years) and a growing market for other PPE, mainly in terms of value (a further growth is expected for the coming four or five years).

In general, German buyers (in particular public authorities and industrial buyers) have a high consciousness regarding standards. Sometimes their requirements are higher than CE standards, which stipulate that CE standards are minimum requirements. Parts of the German market (in particular Southern Germany) are rather difficult to penetrate because there is a negative attitude in buying policy against products from foreign countries other than North American and West European countries.

In the sectors health care and retail, which employ a large proportion of women, there is a difference in styling. In the health sector, it is very common for women to wear a tunic and trousers rather than a dress and there is a very wide variety. In the retail sector, the variety in types of products is even wider.

#### 3.3.2 The Netherlands

Industrial activity features food processing, agroindustries, petroleum refining, chemicals, construction, microelectronics and metal-working. The agricultural sector employs only 4 percent of the labour force, but is highly mechanised, just like fishing. The economy achieved a growth of 3 percent or more in each of the last four years, but real GDP growth is expected to be somewhat lower in the period 2001-2002.

Demand for PPE will grow in the coming years. Demand for workwear is expected to stabilise, while the demand for uniforms will further fall. The number of small companies has increased in The Netherlands. Besides the kind of branch, the number of employees in an organisation is also important for the way in which PPE is purchased. It is difficult for small organisations to buy other than from wholesalers, retailers or catalogues. Large companies can buy wherever they wish, but will for reasons of costs buy in large quantities direct from the manufacturer or through tenders. Medium-sized companies buy mainly from wholesalers. More information about distribution channels is given in chapter 7.

### 3.3.3 France

France is one of the four West European trillion-dollar economies and matches a growing service sector with a diversified industrial base and substantial agricultural resources. Industry generates one quarter of GDP and covers steel, machinery, chemicals, automobiles, metallurgy, aircraft, electronics, mining, textiles and food processing. Tourism plays an important role in the service sector.

The government has sold off part of its holdings in France Telecom, Air France, Thales, Thomson Multimedia, and the European Aerospace and Defense Company (EADS). The telecommunications sector is gradually being opened to competition. France's leaders remain committed to a capitalism in which they maintain social equity by means of laws, tax policies, and social spending that reduce income disparity and the impact of free markets on public health and welfare.

France is in the midst of transition, from an economy that featured extensive government ownership and intervention to one that relies more on market mechanisms. The government remains dominant in some sectors, particularly power, public transport, and defense industries, but it has been relaxing its control since the mid-1980s. French industrial production growth rate was about 3.5 percent in 2000. Most possibilities lie in the field of traditional workwear, especially in the health sector and in the hotel and catering sector. Fashionable and functional medical clothing as well as horeca (hotel, restaurants, cafés) clothing, made of good quality fabrics, form a market with possibilities. However, just like the consumer clothing market, the French market is very difficult to penetrate. Although the demand for specialist protective wear has risen, the bulk of specialist fabrics, as well as the garments themselves, are supplied by French companies.

### 3.3.4 UK

The UK is one of the world's great trading powers and financial centres and its economy ranks among the four largest in Western Europe. Over the past two decades the government has greatly reduced public ownership and contained the growth of social welfare programmes. Agriculture is intensive, highly mechanised and efficient by European standards, producing about 60 percent of food needs by employing only 1 percent of the labour force. Primary energy production accounts for a very high 10 percent of GDP. Industry covers production machine tools, electric power equipment, automation equipment, railroad equipment, shipbuilding, aircraft, motor vehicles and parts, electronics and communications equipment, metals, chemicals, coal, petroleum, paper and paper products, food processing, textiles, clothing, and other consumer goods.

Services, particularly banking, insurance, and business services, account by far for the largest proportion of GDP while industry continues to decline in importance. The economy has grown steadily, at just above or below 3 percent for the last several years. An industrial production growth rate of 2-3 percent is expected for 2001.

The UK is the leading producer in the EU of corporate wear. Demand for PPE grew in the period under review. Total demand for workwear (around 32 million units in 2000) will decrease in volume in the coming years. Other protective equipment will grow modestly but against higher prices, caused by increased usage of (High-Tec) specialised fabrics.

### 3.3.5 Italy

Italy has a diversified industrial economy with approximately the same total and per capita output as France and the UK. Italy is divided into a developed industrial north and a less developed agricultural south where unemployment is 20 percent. Industry generates a third of GDP and covers tourism, iron and steel, machinery, chemicals, automobiles, textiles, clothing and footwear, food processing and ceramics. Most raw materials needed by industry and more than 75% of energy requirements are imported. The Italian industrial production growth rate is expected to reach less than 2 percent in the coming years.

Italy plays a major role in global footwear and clothing production, in spite of the high cost of labour. Nearly 85 percent of Italian footwear production is exported. Factors contributing directly to the Italian success are the price, fashion and creativity linked to wearing apparel, technological innovation and product quality.