

**UNECE**United Nations Economic Commission for Europe

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**In 2002, robot investment in the United Kingdom plummeted by 61%.  
Robot use in the United Kingdom lagging far behind the rest of  
Europe**

***After years of steady increase in robot investment, it fell like a stone in 2002 ...***

Between 1998 and 2001, investment in industrial robots steadily increased, reaching 1,941 units, 26% over 2000 (see figure 1). In 2002, however, investment dropped by as much as 61% compared with 2001.

At the end of 2002, the estimated stock of robots in use in the United Kingdom amounted to 13,650 units, an increase of 2% over 2001. By the end of 2006, the stock is projected to grow to just below 14,400 units, which is hardly an impressive increase.

***United Kingdom lagging behind...***

For every 10,000 persons employed in the United Kingdom manufacturing industry at the end of 2002, there were 36 industrial robots, compared with 135 in Germany, 109 in Italy, 67 in France, and 66 in Spain (see figure 2). In the United Kingdom motor vehicle industry there are some 550 robots per 10,000 production workers, which is also far behind the above densities in the above-mentioned countries (see figure 3).

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### ***Robot prices are down, labour costs are up...***

Between 1990 and 2002 prices of industrial robots fell from index 100 to 44, without taking into account that robots installed in 2002 had a much higher performance than those installed in 1990 (see figure 4). If quality changes had been taken into account, it was estimated that the index would have fallen to 23. In other words, an average robot sold in 2002 would have cost only about a fourth of what a robot with the same performance would have cost in 1990 if it had been possible to produce such a robot in that year. In the last few years, however, the price decline has levelled out.

At the same time, the index of labour compensation in the United Kingdom business sector increased from 100 to 169. This implies that the relative prices of robots have fallen from 100 in 1990 to 26 in 2002 without quality adjustment, and to 14 when taking quality improvements into account.

### ***How much do the robots cost?***

Of the robots installed in 2002, about 50% were valued at between £10,000 and £30,000. Robots in the range of £30,000 to £50,000 accounted for 48% of the supply.

At the high end, robots with a unit cost between £50,000 and £100,000 made up only 1% of the 2002 supply, down from 9% in 1999.

### ***Welding and plastic moulding are the dominant application areas***

Of the total 2002 stock of operational robots, welding accounted for 49%. With 14%, plastic moulding was the second largest application area, followed by material handling with 8%.

### ***The motor vehicle industry dominates...***

The motor vehicle industry was by far the largest user of industrial robots in the United Kingdom. At the end of 2002, this industry accounted for 60% of the total stock of operational robots. With 16% of the operational stock, the chemical industry was the second largest user. The food industry, fabricated metal products, machinery and electrical machinery industries each accounted for only between 2% and 4% of the total stock.

For the global development of industrial robots and service robots, see a parallel press release (ECE/STAT/03/P01) issued on the same day as the present one.

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Figure 1a. Estimated operational stock of robots at year-end and shipments during the year

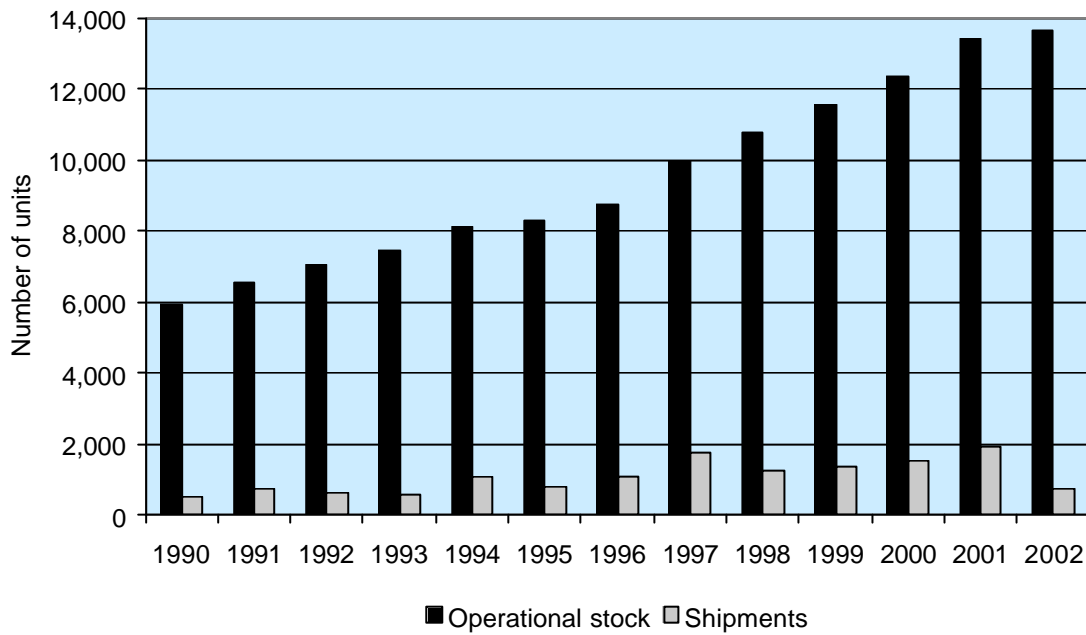
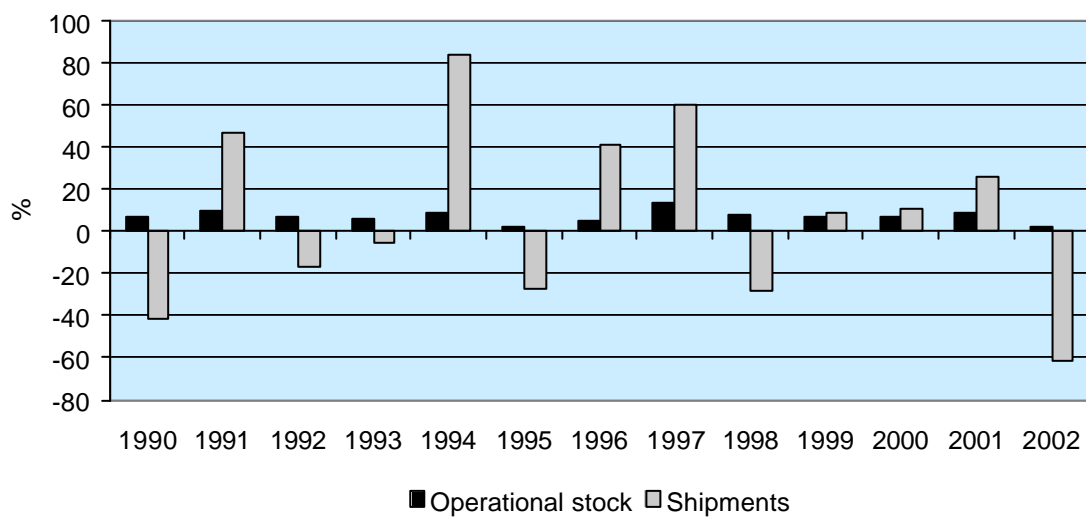


Figure 1b. Yearly percentage change in estimated operational stock and in shipments



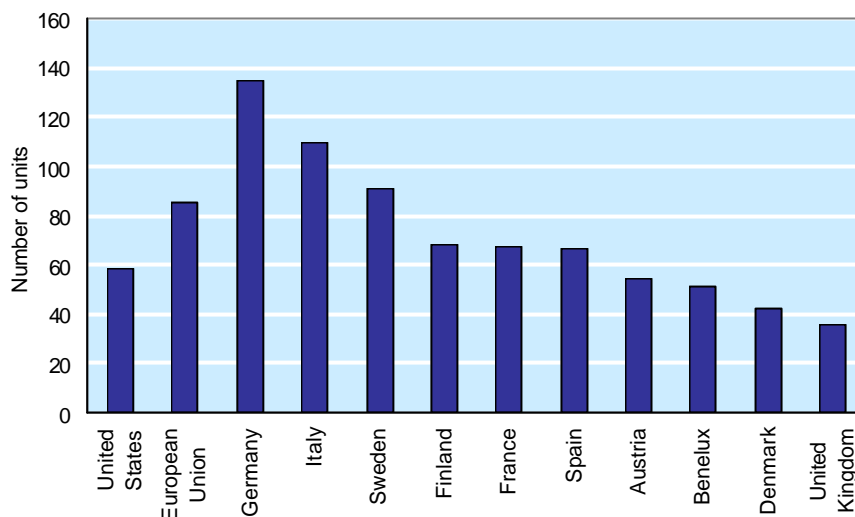
	2002
Japan a/	308
Rep. of Korea b/	128
<b>United States</b>	<b>58</b>
<b>European Union</b>	<b>86</b>
Germany	135
Italy	109
Sweden	91
Finland	68
France	67
Spain	66
Austria	54
Benelux	51
Denmark	43
United Kingdom	36
Australia	33
Norway	21
Portugal	9
Czech Rep.	8

Sources: UNECE and IFR.

a/ Up to and including 2000, data for Japan include all types of robots. As from 2001, data exclude dedicated robots, except for dedicated machining robots. As from 2001, Japanese statistics are therefore much more comparable with those of other countries.

b/ All types of industrial robots.

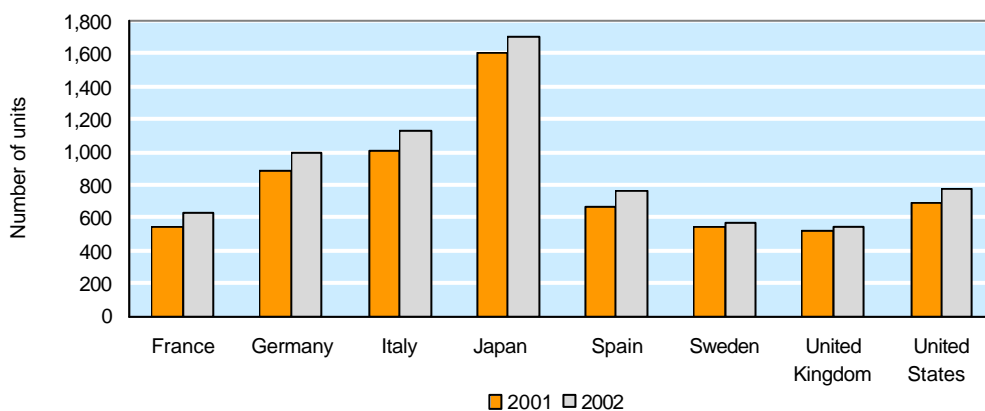
Figure 2. Number of robots per 10,000 persons employed in the manufacturing industry in 2002

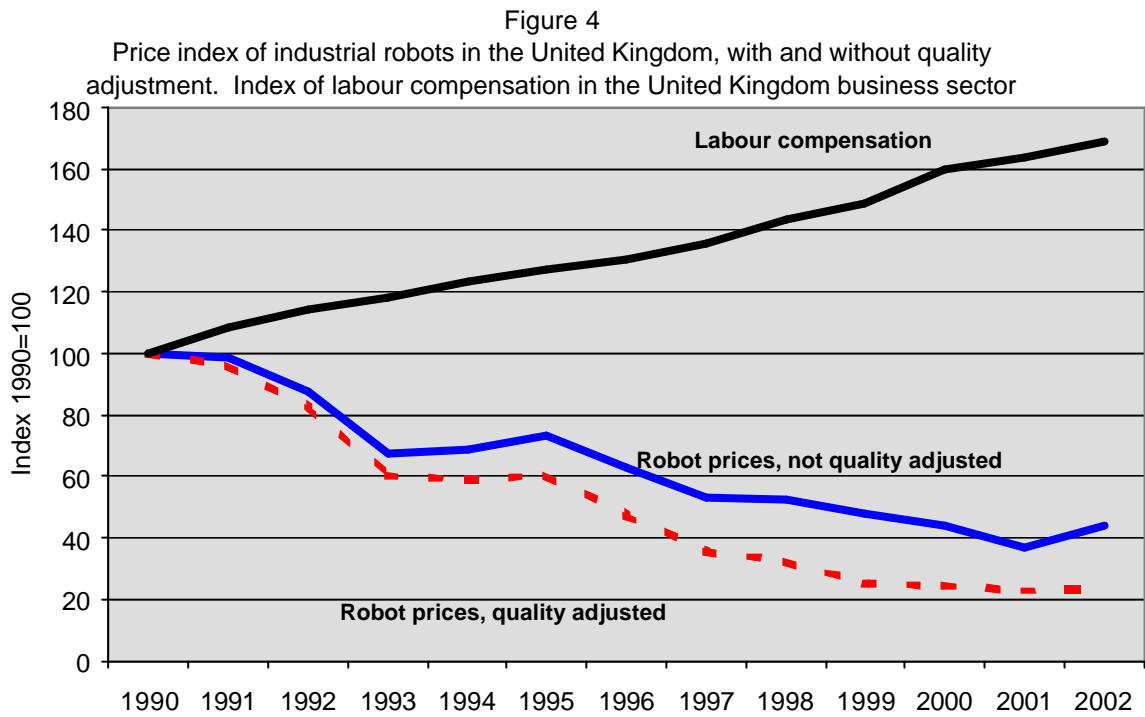


	2001	2002
France	540	630
Germany	890	1,000
Italy	1,010	1,130
Japan	1,600	1,700
Spain	670	760
Sweden	540	570
United Kingdom	520	550
United States	690	770

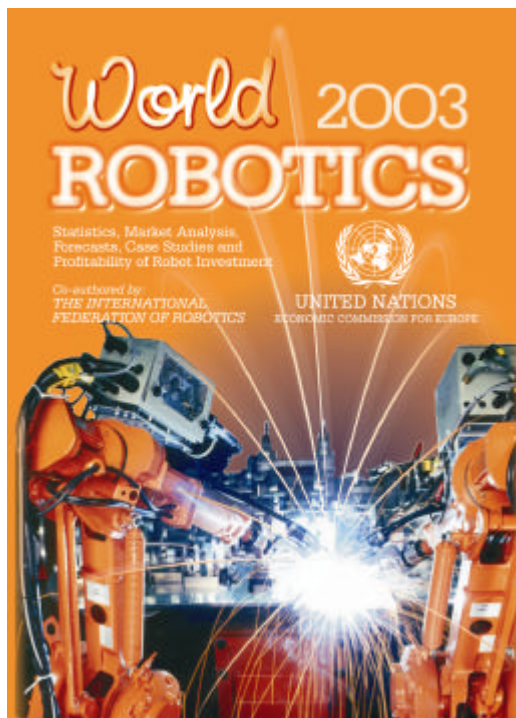
Sources: UNECE and IFR.

Figure 3. Number of robots per 10,000 production workers in the motor vehicle industry, 2001 and 2002





The publication **World Robotics 2003 – Statistics, Market Analysis, Forecasts, Case Studies and Profitability of Robot Investment** is available, quoting Sales No. GV.E.03.0.16 or ISBN No. 92-1-101059-4, through the usual United Nations sales agents in various countries or from the United Nations Office at Geneva (see address below), priced at US\$ 130:



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