Italy is Europe’s second and the world’s fourth largest user of industrial robots
Robot investment projected to grow at an annual rate of 10% in 2002-2005

Record investment…

In 2001, a record 6,400 new robots were installed in Italy, 8% over the previous record of 2000 (see figure 1).

Since 1997 there has been a steady significant yearly increase in sales of industrial robots in Italy and in 2001 it reached about 6,400 units, representing an increase of 8% over 2000.

For the period 2002-2005, robot investment in Italy is projected to increase by an average annual rate of 10%, resulting in some 9,400 new robots being installed in 2005.

Up to the end of 2001, total accumulated yearly sales of robots had reached almost 54,000 units. Of these, it is estimated that about 43,900 units were still in actual operation, representing an increase of 12% over 2000. By the end of 2005, the stock of robots is projected to increase to 67,000 units.

Italian production of robots and the total market

Production of industrial robots in Italy in 2001 amounted to €388 million while the value of sales on the Italian market reached €460 million.

Italy has the world’s second highest robot density

For every 10,000 persons employed in the Italian manufacturing industry at the end of 2001, there were just over 100 industrial robots, which puts Italy ahead of all countries except Germany, disregarding Japan which includes all types of robots and not just general purpose robots in the statistics (see figure 2). In the motor vehicle industry there are as many as 980 robots per 10,000 production workers, more than in any other motor vehicle industry (possibly with the exception of Japan whose statistics are not comparable).
Robots prices are down, labour costs are up…

Between 1990 and 2001, prices of industrial robots fell from index 100 to 59, without taking into account that robots installed in 2001 had a much higher performance than those installed in 1990 (see figure 3). If quality changes had been taken into account, it was estimated that the index would have fallen to 27. In other words, an average robot sold in 2001 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.

In the same time, the index of labour compensation in the Italian business sector increased from 100 to 153. This implies that the relative prices of robots fell from 100 in 1990 to 44 in 2001 without quality adjustment, and to 21 when taking quality improvements into account.

Machining and welding are the largest application areas…

With 28% of total 2001 sales, machining was the largest market segment, followed by welding with 21% of the market and plastic moulding with 20%.

The chemical industry and motor vehicle industry dominate the use of robots…

In 2001, the largest market was the chemical industry with 39%, followed by the motor vehicle industry with just under 39% of total sales. The fabricated metal products industry was the third largest market with a share of 9%.

For the global development of industrial robots and service robots, see a parallel press release (ECE/STAT/02/01) issued on the same day as the present one.

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Figure 1. Estimated operational stock of robots at year-end in Italy and shipments during the year.
Figure 2. Number of multipurpose industrial robots per 10,000 employees in the manufacturing industry (ISIC rev.3: D)

Figure 3
Price index of industrial robots in Italy, with and without quality adjustment. Index of labour compensation in the Italian business sector.

Labour compensation
Robot prices, not quality adjusted
Robot prices, quality adjusted

Index, 1990=100
The publication *World Robotics 2002* - *Statistics, Market Analysis, Forecasts, Case Studies and Profitability of Robot Investment* is available, quoting Sales No. GV.E.02.0.8 or ISBN No. 92-1-101047-0, through the usual United Nations sales agents in various countries or from the United Nations Office at Geneva (see address below), priced at US$ 120:

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