

\$4.8 billion, from which \$300 millions were from biopharmaceuticals. The percentage on sales devoted to R & D was 12%³⁵, that effort was preferentially focused in recombinant DNA technology and the development of new generations of antibiotics. Antibiotics firms are well represented by the size of their R & D programs and by the volume of sales.

3. DIAGNOSTICS

More than 11 % of the biotech companies are involved in diagnostics and develop their products through very active R & D programs. Vaccines, DNA probes and biotech kits are important areas.

4. ENVIRONMENTAL

Government estimates show that for the next four years the cost of compliance with the environmental regulations of the EC would be as high as Cdn \$13.3 billion (1.2 Trillions^d PTAS)³⁶. Until recently Spanish compliance with national environmental regulations had somewhat to be desired. A recent industrial survey indicated that more than 71 % of Spanish companies did not have an environmental coordinator, and more than 35 % of the firms surveyed were not aware of the environmental regulations issued by the EC. That in contrast with 92 % of other European firms which considered the environmental issue very important. The budget allocated for environmental compliance by the Spanish Administration for the period 1990-1994 exceeds Cdn \$1.4 billion and will be managed by the Programa Industrial Tecnológico Medioambiental (PITMA). A large part of these funds are addressed to small and medium size firms.

The lag of nearly 15 years relative to the most environmentally advanced EC countries will have to be eliminated within the next 4 years lest Spanish industrial competitiveness suffers severe consequences. In waste water treatment, the National Plan for Industrial Waste which ends in 1993 has among other objectives, the elimination of 12,000 tons of PCBs and over 96,000 tons of industrial waste oils. An area of great concern is that of personnel training for which there are more than \$380 millions assigned.

^d The official figures are "1.2 billones de pesetas". The Spanish billion (one million of millions) not to be confused with the Canadian billion (one thousand millions)