

E. HUMAN RESOURCES

Canadian firms involved in biotechnology consider scientific and management expertise their most important assets for competitive purposes. Their most valuable source of advice tends to be universities, followed by in-house expertise, and the federal government. The industrial application of biotechnology in Canada will generate an almost 100 % increase from 1988 to 1992 in which the number of employees, only in the private sector, will rise to 11,638⁴⁶. The average number of employees in 1992 for large biotech firms is expected to be 80, and for small companies the average figure is 50 employees.

The sectoral distribution of employees is 65 % for the area of diagnostics, followed by therapeutics with 33 %, 20 % aquaculture, 8 % environmental biotechnology, and the rest would be involved preferentially in consulting, and mining. The percentage of personnel involved in the food and agriculture sectors was 5%. Thus there is a considerable difference between the distribution of employees in Canada and that in Spain. This can be easily explained in terms of the more advanced stage of commercial biotechnology in Canada (a much larger number of biotech firms) and also in terms of the strategic areas of each country. For example, most of the Canadian personnel involved in biotechnology (37.6 %) are in production, followed by R & D (34.1 %), and sales and marketing (10.4 %).

Canada like the European Community and the USA might experience a serious shortage of professional such as biochemists, molecular biologists, chemical engineers, bioengineers, and senior management.

F. INTELLECTUAL PROPERTY IN CANADA

The legislation of intellectual property in Canada is based on the Canadian Patent Act. Patents in Canada are granted by the Canadian Patent Office and protect the owner for a period of 17 years if the patent was filed before 1989, or 20 years if the filing took place after 1989.

Canada is a signatory of the Patent Co-operation Treaty (PCT), administered by the World Intellectual Property Organization in Geneva⁵⁷. This provides a standardized filing procedure, which is shared by Canada's main trading partners including the USA, Japan, and the EC. The country is considering becoming a signatory of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure.