

the GDP have remained virtually constant since 1971 (See Figure 4). Total investment on R & D in 1990 were Cdn \$9.1 billion. The private sector accounted for 56 % of the total expending (\$5.1 billion). That is 0.8% of the GDP, a low percentage by comparison to companies from countries like USA, Germany, and Japan. In spite of these figures, companies are beginning to see R & D as an investment and not as an expense to be reduced in times of economic crises. The highest increase in R & D expenditures over the period of 1987 to 1991 was achieved by transportation equipment manufacturing, pharmaceuticals and medicine, and metal mines. Most funds (52 %) were spent in Ontario than in any other province in 1991. Quebec was the second largest recipient of federal funds (20 %). The number of person engaged in R & D in 1989 were 52,065, out of which 30,160 were in Ontario, followed by Quebec with 13,530.

In the balance for technological services, Canada in 1989 showed a deficit, smaller than that of Spain, of \$64 million <sup>22</sup>. Canadian engineering consulting firms have major involvement in foreign projects specially in infrastructure, pulp and paper, energy transformation, and metallurgy. Indeed Canada is the second largest engineering exporter in the world. However, the investment in R & D of Canadian engineering firms is rather limited<sup>23</sup>. The European Community encourages its member-states to participate in R&D joint projects with non-European members provided that two of the participants are European. Canada, through collaboration with Spanish firms and institutions could benefit from these funds. In this regard, Ryerson Polytechnical Institute (Toronto), and the Universidad de Alcalá de Henares (Madrid) and Universidad Politécnica de Madrid are establishing collaboration agreements leading to the creation of research programs, exchange of students and faculty, etc.

Canada's R&D infrastructure is based on exceptional telecommunication facilities (probably the best in the world), public research institutions well endowed with human and physical resources, public libraries with information easily retrievable, agile administration ( bureaucracy is not the insuperable obstacle observed in some European countries), a labour force well trained, and statistical data bases very current, accessible, and reliable. The overall quality of the universities tend to be better than those of USA, Canada having fewer world class ones but also fewer lowest ranked.

## 6. SPANISH EXPORTS TO CANADA AND OTHER OPPORTUNITIES

Canadian imports of Spanish products reached a total of \$496 million in 1990. The principal imports were iron and steel, petroleum, fuel for aircraft, automotive parts, secondary machinery, fruit and vegetables,