

The objectives of the Canadian survey were:

- 1) to solicit the interest in Canada towards international cooperative R&D;
- 2) to notify Canadian companies of the opportunities and possibilities for cooperative ventures in long term R&D informatics projects;
- 3) to identify current and future areas of activity in information technology R&D for Canadian companies agencies and research centres.

A total of 214 companies were contacted through a mailed out survey. Seventy-six companies provided responses which detailed their background, experience and interest in cooperative projects in precompetitive R&D with partners in Japan and Western Europe. Keen interest in collaboration was expressed by twenty-five of the smaller and medium sized companies. Many of these firms do not have the necessary capital resources or existing product base to facilitate longer term research. However, for them cooperation is viewed as a way to achieve their long term objectives faster and more economically.

Eight major information technology areas were investigated in the survey along with fifty subtopics. The survey assisted in further refining the areas of activity and interests to twelve main topics and thirty-five subtopics. These items were subsequently used in similar surveys conducted in Japan and Western Europe.

The results of pre-survey seminars, indepth discussions and the survey itself were very encouraging. While the industry in Canada may lack the strategic focus of its U.S., Japanese or European counterparts, there were several main interests: artificial intelligence, expert systems, natural language processing, fibre optic components, telecommunications networks, transmission technology, remote sensing and image analysis. Areas, which were not as prevalent, included advanced research on opto-electronics, display systems, submicron lithography and materials research. The latter were subsequently identified in the European and Japanese surveys.

Nonetheless, Canadian firms revealed a substantial interest in cooperative research projects with Japanese and European counterparts. Although they have limited experience in many cases and lack financial resources, their technical knowledge and level of understanding about advances in informatics provides Canadian firms with the basic credentials to be effective partners with European or Japanese firms and research centres.

The Canadian government will need to provide direction and at the very least indirect assistance to small and medium firms for effective cooperation to take place. This will be needed to help overcome some of the inherent fiscal and manpower constraints as well as meet the expectations of European and Japanese partners. Government involvement is very much a part of the R&D scene in both venues. Thus, Canada's efforts should demonstrate the capability of industry and government to develop new ventures jointly and offer long term commitments to potential partnerships with foreign companies and research centres.