

electronic banking, and teleconferencing. It has also been designed so as to be immune to obsolescence brought about by improvements in television receivers, transmission media and data base storage techniques.

About 10 Telidon pilot projects have been set up across Canada. User groups include broadcasters, cable operators, telephone companies and various information-provider organizations. For instance, the system has been incorporated in several government service bureaux to test its use in responding to inquiries by citizens for government information. Mr. Fox, the minister responsible for the government's new freedom of information legislation, described this as a major step in the efforts to improve access to government information.

Sales of Telidon have been made in the United States and Venezuela.

New Directions for Canada's Space Program

THE Canadian government is in the process of restructuring its organization for space activities in order to move forward in a broad range of space applications, making the 1980s look as promising as the 1970s for Canada's space program.

In a speech delivered from Vancouver via satellite to the first Canadian Conference on Astronautics in Ottawa in October, 1980, the Minister of State for Science and Technology the Honourable John Roberts outlined the key features that would be emphasized in the new organization for space.

It would, he said, have responsibilities for a national space development program to afford greater policy stability; a budget for space programs with authority to recommend program priorities; and fostering the continuing development of a healthy Canadian space manufacturing and service industry.

It would provide a focus for Canadian international co-operation and negotiation in space matters, and consolidation of existing technical expertise and marketing of benefits to potential government and non-government users of space technology.

Mr. Roberts announced that the government is also revising its five-year

space plan and indicated that the driving assumptions behind the development of the revised plan are that Canada will need new satellite services in communications and remote sensing in the 1980s. This would allow Canada to build on its existing strengths and lead to system level initiatives in the near future. The planning also recognizes the importance of technology development and covers the long-term investment in research and development required for the success of the space program.

Canada is in a strong position to capitalize on the opportunities offered

by space in the eighties because of the strong foundation built in the seventies. The space program is among the more successful science and industrial development programs undertaken by the government. Beginning only in the 1960s, its output now amounts to \$140 million, its exports total \$60 million, and it employs 2,500 persons.

Continued growth is likely and will come more and more from commercial activities, both domestic and international, as the use of space becomes more commonplace in Canada and around the world, Mr. Roberts said.

Computer Industry: Growing in Importance

THE computer industry comprises a large and growing sector of Canada's economic activity. The products and services of the industry are affecting many other sectors of the economy as Canada enters the throes of a global information explosion associated with the rapid expansion in the use of computers. Technological advances promise to open up huge new business and consumer markets and the evolution of the market can be expected to continue at a rapid pace.

Canada's data processing industry has experienced a phenomenal growth. Some 35 companies are directly engaged in generating computer equipment sales. These companies supply a variety of products encompassing microcomputers, large mainframes, peripherals and operating software.

In the services subsector, the industry provides a wide range of systems design services, data processing by service bureaux, consulting and custom software. Unlike the equipment industry, the Canadian service sector is dominated by Canadian-owned companies.

The statistics for computer services are impressive. There are more than 700 companies directly engaged in services and an average growth rate exceeding 15 per cent has been realized in recent years and shows no sign of abatement.

An example in the professional services sector is six-year-old Systemhouse Limited of Ottawa. It has expanded to become Canada's largest computer consulting firm with more than 500 employees. The company now competes successfully against the biggest international firms for consulting services,

mainly in the fields of finance, health care, and photogrammetric/cartographic systems. A number of major computer manufacturers are also turning to Systemhouse to develop applications packages for their own systems. Systemhouse President John Davies visited Malaysia earlier this month to examine the market potential for his company's services.

In all, Canadians used more than 8,600 computers in 1979 to satisfy their information processing requirements. By 1985, at present rates of growth, the number of installations could swell to at least 40,000 and consist mostly of small computers and microprocessors. In terms of world trade, Canada is the fifth largest import market and eighth largest exporter of computing equipment.

Canada's foreign trade levels in computer equipment have soared, mainly as a result of the high degree of the nationalization taking place in the production of hardware by foreign-owned subsidiaries located in Canada.

Canadian-owned firms have generally chosen not to compete with multinationals in the production of general purpose computers, but have instead concentrated on the design of innovative products for which the need is not being met elsewhere.

The following capabilities have met with particular international success:

Data entry systems, employing multiple key-to-disc techniques with integrated data communications features, are now sold in more than 30 countries. This is a technology that Canada pioneered.