

Products and services from all of the main sectors of the Canadian economy are on show at Canadexpo, and in the following stories each sector is examined individually in terms of its growth history, present state and future potential.

COVER STORY

Big Variety of Computer Products for Export

The Canadian computer industry is a burgeoning sector of the Canadian economy that is moving towards becoming a major force on the world scene — both as user and supplier.

In 1982 its revenues totalled some \$4.5 billion in retail computer and office machine sales, representing an annual growth rate of about 20 per cent. In addition it generated \$1.2 billion in revenue from computer services.

The several hundred companies in the computer equipment field supply a variety of products such as microcomputers, large mainframes, peripherals and operating software.

The services subsector provides a wide range of systems design services, data processing by service bureaus, on-line data bases, consulting and custom software.

There are more than 1,400 companies providing computer services, employing

more than 20,000 people. At least 90 per cent are Canadian-owned: it is estimated that Canadians produce 82 per cent of the total service industry revenues. An average growth rate exceeding 20 per cent has been realized in recent years and shows no sign of abatement.

"Canada is the fifth largest import market and eight largest exporter of computing equipment in the world."

The Canadian market for computing equipment is largely supplied by imports. In 1982 Canada imported computer equipment worth \$3 billion, the bulk of which

originates in the US. In a complementary manner, about 90 per cent or \$900-million worth of the output of domestic production was exported by the industry. Canada is the fifth largest import market and eighth largest exporter of computing equipment.

Microprocessors

Canadian firms have generally chosen not to compete with multinationals in the production of general purpose computers. They have, instead, concentrated on the design of innovative products with a wide range of applications incorporating the latest advances in microprocessors.

The following Canadian products and services have met with particular international success:

- word processing systems, now sold in more than 80 countries;
- "intelligent" terminals, such as the (computer-aided design/computer-aided manufacturing) special high resolution terminal developed for Telidon;
- data communications products to link computers to data networks, including packet switching;
- CAD/CAM graphics with specialized terminals and software languages;
- custom-built on-line computer systems;
- proprietary software packages;
- desk-top microprocessors for financial management applications in small businesses;
- specialized data bases; and
- microcomputers capable of receiving a wide variety of software services through cable television networks.

COVER STORY

A World Leader in Telecommunications Technology

Canada is virtually self-sufficient in telecommunications — the result of Canadian companies responding to the needs of an affluent society and a vast and territorially rugged country.

Canada's size as the second largest country in the world has provided continuing impetus for the development of new technologies to bring people and their organizations together.

In meeting these needs, Canada also has attained a worldwide reputation for its expertise in advanced telecommunications, being at the leading edge of communications technology.

Canada had an early start in telecommunications. Alexander Graham Bell invented the telephone in Canada in 1874. Two years later the world's first long distance telephone call took place.

Canada, with a population of 24 million, has 18 million telephones in service (75 percent of the population) and has the fourth highest telephone density in the world. In the interest of even greater reliability and increasing operating economies, the system is being rapidly converted to the digital mode.

Canada has a world class presence in digital switching equipment and technology. In the early 1970s, Northern Telecom, in concert with Bell Northern Research and Bell Canada, began to develop digital switching and transmission systems.

Digital family

Northern Telecom became the first company in the world to announce and bring forth a complete family of fully

digital switching and transmission systems.

Digital has become the future, sharing the telecommunications industry around the world. Today, Northern Telecom has in service or on order more fully digital systems than any manufacturer in the world.

Canadian PBX equipment has won wide acceptance in markets worldwide. There are five Canadian manufacturers of PBX equipment.

AEL Microtel manufactures Spacetel, a single carrier low cost transportable satellite earth station for remote areas.

SR Telecom Inc. provides subscriber radio telephone service to rural and suburban areas.

Northern Telecom offers a compact subscriber carrier system to handle up to 512 subscriber lines in remote locations.