

INFORMATION TECHNOLOGIES

The information technologies industry encompasses several subsectors. Telecommunications dominates, but the software, processing and professional services area is quickly growing (approximately 8 per cent annually).

The telecommunications equipment and services industry in Canada employs some 45,000 people in about 500 companies. The domestic market is small and Canadian telecommunications companies export about 30 per cent of their products. Our trade surplus of \$700 million in 1984 has steadily declined to a trade deficit of around \$320 million in 1989.

Although only 200 companies make more than \$2 million in sales a year, Canada's software, processing and professional services market was \$3.9 billion dollars in 1992. There are more than 4000 software product companies in Canada, with the majority showing sales of under \$200,000 annually. The majority are small to medium sized companies, with particular strength in niche products. Approximately 80 per cent of Canadian software companies are actively exporting.

I. Market Opportunities

Japan is the world's second largest software market, (the software, processing and professional services market is estimated to be US\$37 billion in 1992). About US\$2.23 billion worth of software products were sold in Japan in 1991, with imports just under \$US400 million. With the predicted explosive growth of 15 per cent to 20 per cent per annum in the software market, Japan represents a major market opportunity for Canadian software developers. Much of this growth will be in packaged software. Approximately 90 per cent of the packaged software imported into Japan is currently from the United States.

The Japanese market is fragmented because of a variety of incompatible hardware platforms and operating systems. In the 1980's, Japanese manufacturers created incompatible, proprietary systems, with NEC's 6 million PC units dominating the market. NEC also worked closely with software manufacturers, giving NEC a huge software base of approximately 15,000 titles which dominated the domestic market. This is changing, as five of the ten best selling software packages in Japan are foreign-developed, although English-based software must be modified to process Japanese double-byte Kanji characters. Custom-built software applications dominate the Japanese market, representing about 80 per cent of sales, but as consumers become more comfortable with software packages, this is expected to