Within these sectors, there are a number of subsectors where demand is expected to provide significant new opportunities for overseas products during the next few years. In the hardware area, these opportunities include

(i) *Application unique terminals* particularly in banking, insurance, wholesale trade, retail trade and government;
(ii) *Special printers*, particularly involving colour and high resolution;
(iii) *Communication interface* boards and dial-up hooks as the network revolution takes place; and
(iv) *Graphics products* with colour, high resolution and associated software.

In the software area, opportunities should arise in

(i) *Financial modelling* packages in the microcomputer area;
(ii) *Word processor* packages that will permit microcomputers to compete with dedicated word processors;
(iii) *Communication packages* that allow portability of microcomputers onto networks while maintaining independence from mainframes;
(iv) *Fourth generation language* packages that provide relational database capability on multifile structures, together with good English commands and report writers;
(v) *System and utility software* packages with user-friendly attributes;
(vi) *Graphics* packages in the business area;
(vii) *Vertical market* packages for virtually all hardware makes and configurations; and
(viii) *Home user* packages such as intelligent games, shopping, banking, and news dissemination for home microcomputers.

The opportunities that hold greatest promise for Canadian firms are those that relate most directly to proven Canadian expertise and performance in the marketplace, that is, where there is a "match" between perceived demand in a particular sector of the Australian information processing market and Canadian supply capabilities in that sector. A recent survey of a cross-section of Canadian companies and an examination of product literature indicate that the general areas of greatest potential for Canadian companies in the Australian market are

— special application software (e.g., financial, library and health care packages);
— application unique terminals;
— communications hardware;
— input/output devices, particularly as regards CAD/CAM, CAI and graphics; and
— communications/network processing systems.

In addition, there are other areas where existing competition is fierce (e.g., personal computers, consulting services) and where individual Canadian companies with "leading-edge" technology and expertise could successfully penetrate local markets.

Viewing the Australian information processing market from an industrial user perspective one can see that financial institutions, government and manufacturing account for some 50 per cent of processing activity:

Australian Installed Computer Base Value Percentages

	1979	**1982**
Financial institutions	17.4	19.9
Government	20.7	18.4
Manufacturing	12.2	13.3
Services	12.4	11.8
Chemical/petroleum	11.1	10.1
Professional	8.0	8.2
Transportation/utilities	7.9	7.1
Wholesale/retail	4.8	6.7
Other	5.5	4.5
	100%	100%

Results from 1983 surveys indicate that the fastest growth areas in terms of *new computer installations* were mining and construction (27.6 per cent), finance and insurance (16.4 per cent), and professional services (16.0 per cent).

End-user sectors that have been slow to adopt information processing technology in the past but that now present significant new market opportunities in Australia include retailing, health care, leisure industries and publishing.

Although the rapid convergence of computer and communications technologies has not been evident in Australia as in other industrialized countries, the establishment of a packet-switching network (AUSTPAC) in late 1982 and the planned launch of a domestic satellite system (AUSSAT) in 1985 have given further impetus and incentive for the development of data communications between computers and for the integration of voice, text, data and visual communications technologies. These developments combined with the expected growth in local area networking and distributed data processing systems will result in increased demand in Australia for third-generation PABXs and a variety of interface devices such as modems, acoustic couplers, communications processors and multiplex equipment.

Recent Canadian Marketing Activity

Although a number of Canadian information processing firms with considerable experience have visited Australia during the past few years, it is only recently that the Canadian industry has begun to make its presence felt in the local market. A number of well-established firms such as Gandalf, Systemhouse, Cognos and Memotec have established agency arrangements and are now looking to increase their penetration of specialized market sectors. I.P. Sharp has been operating a subsidiary company in Australia quite successfully for the past few years, providing its users with access to a wide variety of domestic and international databases and associated programs.

Of particular interest was the establishment in December 1982 of DMR and Associates (Australia) Pty. Ltd. in Melbourne, a subsidiary of its Canadian