

The Japanese Context

Over the past four decades the Japanese electronics industry has transformed itself from a group of small companies struggling to survive in the transistor business into a major contributor to Japan's national social and economic development. It has moved from insignificance to a point where it now contributes more to Japan's manufacturing than the country's automotive industry.

Electronics in Japan employs over 1.2 million people. There are some 18,000 electronics companies in Japan, 3,500 of which have more than 50 employees. There are 133 companies in the field that employ more than 1,000 people. Over 50 per cent of all production in electronics comes from these 133 companies; the 13,500 companies that employ less than 50 people account for less than 7 per cent of production.

Electronics accounts for more than 22 per cent of Japan's exports, a clear indication of the international orientation of the industry. Japan exports over \$38 billion (U.S.) each year in electronics while it imports \$4 billion. The United States is Japan's major export customer, receiving over 1.7 trillion yen worth of products. Japan imports only 4 billion yen worth of electronics from the U.S.

Japanese companies control some 350 electronics production facilities and companies around the world. Canada has 5 such companies - 3 in television production, 1 in electronic devices and 1 other - putting it on the same scale of Japanese involvement as Mexico, the Philippines, Spain and Australia.

Microelectronics forms a major part of the Japanese electronics industry. Approximately 10 per cent of the companies, employees, production, value added, research and development and exports in the electronics sector are in the microelectronics field. In 1985 semiconductors accounted for 2.5 trillion yen; 77 per cent of production was in ICs and 23 per cent in semiconductor discrete devices. In a total production that year of 9.5 billion units, 340 million were hybrid ICs while 9.179 billion were semiconductor ICs. Of this production, 64 per cent were for industrial use while 34 per cent went for consumer use. The major microelectronics export products are semiconductor devices and photo cells, silicon transistors, silicon diodes and unmounted semiconductor elements. ICs still enjoy healthy growth in spite of recent trade difficulties. Japan has a large trade surplus in this area.