

COMPETITIVE ANALYSIS ...

KEY PARTICIPANTS

The following section gives a synopsis of high technology industries in Singapore, naming major players and their products. Canadian companies can gauge the climate for investment for their particular industry by contacting the EDB.

Within the *chemicals industry*, the government is promoting a shift to high value-added, technology-intensive specialty chemicals. There is growth in regional demand, especially with industrial chemicals. Companies such as Union Carbide and Mitsui Toatsu Chemicals have established overseas headquarters in Singapore.

The *plastics industry* is considered particularly lucrative in Singapore. In plastics fabrication, cross industry demand occurs in fields such as injection mouldings for electronic products, films and bags for the pharmaceutical and medical industries. New development opportunities exist in bi-axially-oriented polypropylene film and elastic polyurethane film production.

Biotechnology is new to Singapore, but since it is targeted by the government for growth, it shows much potential. Areas of focus are cell regulation, infectious and genetic diseases, and plant genetic engineering.

Healthcare and pharmaceuticals production is dominated by foreign MNCs. Industry growth has averaged 25% for the past five years with companies such as Bayer, Beecham, Glaxo and Kaneka being the major investors. Products range from Zantac, an anti-ulcer drug, to catheters and heart valves.

Electronics has been the largest industry in the manufacturing sector in Singapore and is well positioned to remain an ideal center for electronic production as demand for consumer and industrial electronic goods grows in the Asia Pacific region. Over 200 foreign companies have manufacturing facilities in Singapore, and the world's largest concerns are represented, such as Philips, Sony, Aiwa, and Matsushita. Their plants are the most advanced in the world, featuring just-in-time inventory systems, automated material handling, value engineering and product and process redesign and surface mount technology.

Singapore's role as a manufacturing center for the *computers* is strong and increasing. Apple Computer, Compaq Computer and Hewlett Packard each have their Asian manufacturing and distribution plants in Singapore.

The *communications industry* is relatively young; however, AT&T and Motorola manufacture telephones, radio phones, pagers and fax machines in Singapore.

With *aerospace and aviation related industries*, Singapore has focused primarily on the manufacture of parts. Because Asia-Pacific regional air traffic is expected to grow at an annual rate of 11% between 1990 and 1995, companies such as GE, Honeywell Aerospace, Pratt & Whitney and Aerospatiale have set up shop for market visibility and cost effective manufacturing.

Singapore is a regional leader in the field of *industrial automation*. Major players are the Matsushita Technical Center, Hirata, Technistar, and the Robot Leasing Company. Business involves selling robotics and automation hardware as well as automation consultancy services.