

ing the attraction of offshore investment by non-traditional North American motor vehicle manufacturers) will present themselves.

Canadian manufacturers of urban transportation equipment could stand to win a significant portion of the international market if a number of constraints are overcome and appropriate policy instruments are put in place to support Canadian producers. These relate to access to the U.S. market, systems capability, and export financing.

Access to the important U.S. market is impeded by substantial tariff and non-tariff barriers. Urban transportation equipment was virtually left untouched by the Tokyo Round of trade negotiations. Neither the U.S. nor Canada reduced their tariffs on rolling stock, and the U.S. did not remove the domestic content requirements of its Surface Transportation Assistance Act (STAA). The STAA, which was enacted in 1978, provides federal leverage through substantial federal funding assistance on purchasing for urban mass transit projects at the state and local levels.

While the U.S. export capability in urban transportation is minimal, Canada faces stiff competition from European and Japanese producers, who are willing to offer attractive financing terms to penetrate the growing markets in developing countries. Canadian industry is also coming under increasing pressure for higher local content, joint ventures, licensing arrangements, and technology transfers. The willingness and ability of Japanese and European firms to respond to these pressures have been important factors in their competitive position in these markets.

Canadian export capability to supply both urban transportation equipment and services has been demonstrated: up to 75 per cent of total annual production is sold in the international market. The industry has the capability to supply complete turnkey systems with a high degree of Canadian content. Over the next 15 years, the world market for urban transportation equipment is estimated to be \$400 to \$500 billion. Closer co-operation between Canadian manufacturers and operators would clearly help Canadian producers to compete effectively in world markets. Once a system is installed in a foreign country, succeeding orders tend to involve the same type of equipment. Therefore, it is important that Canadian equipment be introduced ("showcased") in major growth markets including the Middle East, Far East, Turkey, and Spain.

North American motor vehicles and their constituent original equipment parts tend, by design, to be geared to the North American market. However, as the industry moves toward internationalization of product design and production, new opportunities, coupled with increased competitive pressures from offshore suppliers, will be present. Promotional activities that improve the opportunities to secure industrial co-operation, technology transfer, and joint ventures should assist Canadian parts producers in adopting an even more aggressive international supply capability. Attracting offshore investment by non-traditional North American motor vehicle manufacturers will also provide new opportunities for Canadian parts producers to supply parts to

other, related, foreign-based assembly operations.

In the case of urban transportation equipment production, it will be important to promote close co-operation between Canadian equipment manufacturers and systems operators in order to "showcase" Canadian equipment operating in a revenue producing mode. A more integrated approach among consultants, government, and industry in international marketing efforts may also be a determining factor in meeting stiff international competition for this capital equipment. In addition, Canadian consultants could be encouraged to seek to ensure that the availability of Canadian systems is examined during their development of specifications for offshore projects. Timely and competitive export financing will clearly be an increasingly important factor influencing the success of Canadian urban transportation equipment in maintaining a strong export performance during the 1980s. In all cases, however, it will be important to address each major project on its own merit and evaluate specific marketing programs in terms of the Canadian industry's needs.

6. Electronics

World markets for electronics products and services have been growing at a rapid pace over the past decade or two. Growth projections in the 1980s and 1990s indicate continuing rapid rates, especially in informatics and telecommunications. While the needs of individual countries vary widely, as does their capacity to absorb and fund acquisitions, there are few markets with insignificant potential for commercial sales by Canadian industry. In addition to informatics and telecommunications, space communications have also shown continuing upward growth trends. Rural communications have, for some time, been an important component of development programs in Third World countries. In defence electronics, markets outside of North America are limited, but there are opportunities for unique product or technology sales.

Priority markets are: (a) for informatics — U.S., Western Europe, Japan; (b) for telecommunications — Africa, Asia/Pacific; (c) for space communications — Nigeria, Colombia, Argentina, Mexico, China; (d) for rural/subscriber radio — Colombia, China, Thailand; (e) for defence electronics — U.S.

The Canadian communications electronics industry includes large, medium, and small enterprises, each with the capacity to innovate and to aggressively pursue exports. Canada was the first country to establish a geostationary communications satellite system, and to test direct broadcast satellite services; it also led the way into digital telephony transmission, arctic communications, spectrum management, and the second videotext generation. In defence electronics, military radio relays, artillery computers, and navigation systems, Canadian products have met with significant success in international markets. However, linguistic and application environments, as well as telecommunication, safety, and electrical requirements and standards, knowledge of approvals procedures, and access to test facilities are common obstacles to the sale of Canadian products.