

devices, advanced machinery and machine tools, wood-harvesting equipment, and environment protection devices. From the inception of the program in 1965 to March 31, 1974, \$214.1 million has been approved to support 778 development projects.

In order to remain internationally competitive, Canada's defence industry must keep pace with product developments and advances in manufacturing technology dictated by the requirements of modern military equipment. The Defence Industry Productivity (DIP) Program is designed to enhance the technological competence of the Canadian defence industry by providing financial assistance to industrial firms for the development of military equipment. Emphasis is placed on those areas of defence technology having civil export sales potential. Support is also provided for the acquisition of modern machine tools or other advanced manufacturing equipment to meet exacting military standards, as well as pre-production expenses to establish manufacturing sources in Canada for export markets.

Projects initiated under the DIP Program have been instrumental in helping industry to develop its skills on a specialized basis in fields of technology that have defence and civil applications and which Canada is favourably situated to exploit. Costs of these projects are shared by the Department and the Canadian firm concerned and, in some instances, by the governments of other countries. Among the projects that have received assistance are communications and aircraft navigation systems, gas turbine engines for aircraft, flight safety and simulation equipment, and information display facilities. Exports of the products of these developments continue to increase, including significant orders for such diverse applications as commercial airlines, public communications networks and television distribution systems. Since the inception of the Program in 1959, more than 740 projects involving a contribution of some \$424 million have been supported.

The Department administers three other programs which are designed to help Canadian firms, in particular small firms, to keep abreast of technological advances and thus maintain a competitive position in world markets. The Centres of Advanced Technology Program provides funds to universities and other organizations to assist with the establishment and operation of centres of expertise in specific fields. Eight centres have been established: The Canadian Institute of Metalworking at McMaster University, the Centre for Powder Metallurgy at Ontario Research Foundation, the Systems Building Centre at the University of Toronto, the Systems Analysis, Control and Design Activity at the University of Western Ontario, the Centre for Ocean Engineering at the British Columbia Research Council, the Centre for Ocean Technology at the Nova Scotia Research Foundation, the Canadian Food Products Development Centre at the Manitoba Research Council, and the Environmental Technology Centre (Centre de Technologie de l'Environnement) at the University of Sherbrooke. The Industrial Research Institute Program assists universities to provide research and other scientific services to industrial firms. In this way expert technical assistance is available to those firms that do not maintain research and development facilities of their own, other firms can benefit from specific expertise without expanding their R&D facilities, and in general a closer relationship between universities and industry is encouraged. Institutes have been formed at the University of Windsor, McMaster University, the University of Waterloo, the Nova Scotia Technical College, McGill University, École Polytechnique, Ryerson Polytechnical Institute, the University of Alberta and the University of Quebec at Montreal. The Industrial Research Association Program encourages industrial firms to co-operate in supporting research and development work and related scientific activities such as technical information, technical advice, analysis and testing. Three research associations have been assisted under the program: the Canadian Welding Development Institute, the Canadian Gas Research Institute and the Sulphur Development Institute of Canada.

The Department is actively engaged in scientific and technological exchanges with foreign countries for the purpose of stimulating innovation in Canada, promoting industrial development through licensing arrangements, encouraging joint research and development projects in specific areas of technology, and developing markets for Canadian technological products. To facilitate such exchanges, bilateral science and technological agreements have been signed with Belgium, the Soviet Union and the Federal Republic of Germany, which provide for annual consultations and review of activities. The Department also participates in the activities of international organizations which are concerned with the industrial application of science and technology.