

related activities, ranging from demonstrations of feasibility, through development to performance evaluation and engineering tests.

One program conducted by the Defence Research Establishments (DRE) is a technical program on acoustic detection of submarines. It is carried out jointly by the DRE Atlantic and the DRE Pacific in the three oceans bordering Canada, using research ships and scientific equipment developed mainly by DRE. The program aims to improve military ability for reconnaissance, location and surveillance of submarines in waters of Canadian interest. It is concerned with all aspects of underwater acoustic propagation: natural and man-made interfering noise, signal processing and analysis, and transducer technology. International co-operation and information exchange are important parts of the program.

9.2.8 Department of Industry, Trade and Commerce

A major function of the department is to assist product and process development and to increase productivity in Canadian industry through greater use of research and application of advanced technology. Its main tool is financial assistance programs. Total scientific expenditures of the department were estimated at \$83.0 million for 1977-78, \$81.1 million for natural science activities.

In 1977 several of the development incentive programs were consolidated into one, the Enterprise Development Program (EDP). It provides financial support for product development, pre-production design and engineering, productivity studies and studies to determine market feasibility and strategies. The EDP normally finances up to 50% of eligible costs of specific innovation projects. It assists firms when projects appear commercially viable but represent a significant burden on the firm's resources. There was provision for up to \$26.7 million for this program in 1977-78.

The department also has a program on industrial energy conservation research and development providing assistance for R&D aimed at new energy-conserving technologies; \$1.5 million was included for it in the 1977-78 federal estimates.

The Industrial Research and Development Incentives Act (IRDIA), providing support for industrial R&D since 1966, was discontinued as of December 31, 1975. Since IRDIA grants were for past R&D, the department accepts applications for expenditures made by industry before the end of 1975. Total spending for this program reached \$275.5 million as of March 1977. Grants authorized for 1977-78 were estimated at \$45.8 million.

The department assists in establishment and maintenance of industrial research institutes at universities. Those which have been supported under the program are in Nova Scotia Technical College, École Polytechnique de Montréal, Ryerson Polytechnical Institute, and the universities of McGill, British Columbia, Quebec, Western Ontario, Alberta, Sherbrooke, Guelph, Dalhousie and Carleton.

9.2.9 Department of National Health and Welfare

The department provides substantial support for R&D and other activities in health sciences. A health resources fund was established in 1966 to help construction of teaching and research facilities at universities, hospitals and other institutions engaged in health research and training. The department provides capital grants covering up to 50% of the cost of approved projects.

The department provides funds for R&D in welfare-related subjects, drug abuse, fitness and sports participation, research related to health needs, health planning and the utilization of health services and health care facilities. R&D projects are supported primarily in Canadian universities and non-profit institutions. Grants are provided to provincial governments through an income security and social assistance program.

9.2.10 Medical Research Council

The Medical Research Council (MRC) supports research and development in health sciences (excluding public health) in Canadian universities and affiliated institutions. Research is supported primarily in the faculties of medicine, dentistry and pharmacy but projects in other areas relevant to health problems are considered. Research funds are distributed through three main programs: grants for research, direct personnel support