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Objective-Functions-Organization

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Ministry of State for Science and Technology

OBJECTIVE

To assure the optimum use of science and technology in support of national objectives.

SUB-OBJECTIVES

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- To formulate and develop objectives, priorities and policies for the optimum development and application of science and technology in support of national objectives.

- To formulate and develop policies to achieve the most effective interrelationships among science and technology programs and with other federal policies and programs.

- To formulate and develop policies to foster the most effective cooperative relationships with respect to science and technology within Canada and internationally.

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- To assist departments and agencies in the formulation and development of advice to the government with regard to the optimum investment in science and technology, the most satisfactory organization of scientific activities, and the most effective participation in international scientific affairs.

- To develop improved methods for evaluating the effectiveness of scientific policies and programs and to promote their most efficient application.

Ministry of State for Science and Technology

PROGRAM DESCRIPTION

Policy Development

Assessment of the impact of science and technology on Canadian society; forecasts of likely developments in science and technology; conduct or sponsorship of science policy studies; formulation, development and recommendation of objectives and priorities for science and technology; advice and counsel on the science and technology implications of government policies or proposals; and development of policies related to science and technology in university, industrial and international affairs and to the coordination of intramural research programs.

Program Review and Assessment

Advice in the budgetary process on matters with a significant science and technology content; recommendations on the organization of research and development activities; advice to departments and agencies on the conduct of science and technology programs and activities; and development and promotion of methods of evaluating the effectiveness of science and technology policies and programs.

International and Domestic Cooperation

Facilitation of the exchange of information on domestic and international scientific activities, programs and results among all major users; recommendations on the extent and nature of participation in national and international scientific activities; assistance in the management of Canada's agreements and other cooperative relationships in science and technology with other countries; organization of government sponsored scientific missions and visits; and functional direction of a science counsellor network abroad.

Administration

Operation of the offices of the Minister and Secretary; Ministry program planning and review; and provisions of financial, personnel, information and administrative services.

POLICY BRANCH

CONTINUING OBJECTIVE

- To assure the existence of comprehensive, well-planned and integrated federal policies for S&T and the compatibility of other government policies so as to provide optimum support to the achievement of national objectives and to advise on improving the efficiency and effectiveness of federal government activities in S&T.

MAJOR FUNCTIONS

- Formulates and develops government objectives, priorities, and policies for the development and utilization of S&T in the national interest.

- Advises on the S&T implications of policies, programs and proposals.

- Formulates and develops policies and mechanisms to achieve effective interrelationships among S&T programs and with other federal policies and programs.

- Participates in the explanation of new S&T policies and assists in their implementation.

- Ensures the coordination of S&T policies and in collaboration with other departments and agencies ensures the coordination of programs with significant S&T content.

- Provides forecasts of likely developments in S&T and assesses the impact of S&T on Canadian society

- Advises the Privy Council Office on the federal machinery of government for S&T.

- Advises Treasury Board on the relevance, organization, coordination, resourcing and effectiveness of S&T activities.

- Develops and promotes the use of means of evaluating the effectiveness of S&T policies and programs.

- Conducts or sponsors research on the development of science policy.

TECHNOLOGICAL FORECASTING & TECHNOLOGY ASSESSMENT DIVISION

Continuing Objective

- To provide forecasts of likely advances in S&T and assessments of their effect on the quality of life in Canada that will be of maximum value to the policy formulation and advisory roles of the Ministry.

Major Functions

- Undertakes medium and long-term forecasting of advances and trends in S&T.

- Assesses the impact of S&T on Canadian society and on the achievement of government objectives and identifies approaching problems and opportunities for S&T policy development advice.

- Provides advice on the long-term S&T implications of proposals being advanced to the government.

- Ensures that relevant forecasts and assessments are properly interpreted in the formulation of S&T policies within the Ministry.

TECHNOLOGICAL FORECASTING GROUP

Major Functions

- Develops or improves suitable methods of forecasting medium and long-term advances in S&T.

- Makes medium and long-range forecasts of likely advances, trends and events in science and technology.

- Promotes and assists in the utilization of relevant technological forecasts by science policy developers.

TECHNOLOGY ASSESSMENT GROUP

Major Functions

- Develops and improves methods for assessing the medium and long-term effects of technology change.

- Assesses the medium and long-term effects of technology change on the quality of life in Canada and S&T activities.

- Participates in the interpretation of technology assessments in the formulation of national objectives and priorities for S&T and the selection of policy development opportunities.

GOVERNMENT SCIENCE & TECHNOLOGY DIVISION

Continuing Objective

- To assure the optimum development and use of S&T within the Federal government sector in support of national goals.

Major Functions

- Develops and formulates overviews of the adequacy and interrelationships of S&T and related policies that affect Federal government activities.

- Provides advice to achieve compatibility and mutual reinforcement among various government S&T objectives, priorities and policies.

- Recommends objectives and priorities for S&T in the Federal government sector and suggests policy initiatives for the Ministry.

- Develops and formulates S&T policies and recommendations concerning programs within the Federal government sector.

- Recommends S&T policies for the Federal government sector that may include implementation plans, coordinative machinery and effectiveness criteria, to senior decision makers in the Ministry and the Cabinet structure.

- Participates in the explanation of new S&T policies and assists in their implementation.

- Ensures the coordination of S&T policies, and in collaboration with other departments and agencies ensures the coordination of programs with significant S&T content, that affect the Federal government sector.

- Provides advice to the Privy Council Office and Treasury Board Secretariat on the federal machinery of government for S&T and the general organization within the Federal government sector for S&T activities.

- Conducts or sponsors research on the development of science policy.

- Evaluates the total impact of policies pertaining to S&T activities within the Federal government sector and prepares adaptions and refinements as required.

INDUSTRIAL SCIENCE & TECHNOLOGY DIVISION

Continuing Objective

- To assure that Canada develops and maintains a strong scientific and technological capability within the industrial sector and a favourable environment for the application of this capability.

Major Functions

- Develops and formulates overviews of the adequacy of S&T and related policies and programs that affect the industrial sector and provides advice on the S&T implications of related policy proposals or initiatives from elsewhere in the Government.

- Recommends objectives and priorities for S&T for Canada in the industrial sector and suggests policy initiatives for the Ministry.

- Develops and formulates S&T policies and recommendations concerning programs that affect the industrial sector.

- Recommends industrial S&T policies that may include implementation plans, coordinative machinery and effectiveness criteria to senior decision makers in the Ministry and the Cabinet structure.

- Participates in the explanation of new S&T policies and assists in their implementation.

- Ensures the coordination of S&T policies, and in collaboration with other departments and agencies ensures the coordination of programs with significant S&T content, that affect the industrial sector.

- Provides advice to the Privy Council Office and the Treasury Board Secretariat on those aspects of the federal organization for S&T that affect the industrial sector.

- Monitors in collaboration with other branches the development of industrial science policies and related activities of other jurisdictions.

- Evaluates the total impact of policies pertaining to the industrial sector and prepares adaptations or refinements as required.

UNIVERSITY RESEARCH DIVISION

Continuing Objective

- To assure that Canada develops and maintains a strong research capability within the university sector and adequate mechanisms to derive optimum benefits therefrom.

Major Functions

- Develops and formulates overviews of the adequacy of S&T and related policies that affect the university sector and provides advice on the S&T implications of related policy proposals or initiatives from elsewhere in the Government.

- Recommends objectives and priorities for S&T for Canada in the university sector and suggests policy initiatives for the Ministry.

- Develops and formulates S&T policies and recommendations concerning programs that affect the university sector.

- Recommends university research policies that may include plans, coordinative machinery and effectiveness criteria

to senior decision makers in the Ministry and the Cabinet structure.

- Participates in the explanation of new S&T policies and assists in their implementation.

- Provides advice to the Privy Council Office and the Treasury Board Secretariat on those aspects of the federal organization for S&T that affect the university sector.

- Ensures the coordination of S&T policies, and in collaboration with other departments and agencies ensures the coordination of programs with significant S&T content, that affect the university sector.

- Evaluates the total impact of policies pertaining to the university sector and prepares adaptations or refinements as required.

PROGRAM REVIEW AND ASSESSMENT DIVISION

Continuing Objective

- To provide advice and support to departments, agencies and policy development groups in the Ministry on budgetary matters in order to increase the cohesiveness and effectiveness of federal government activities in S&T.

Major Functions

- Supports decision making in the Treasury Board Secretariat by advising on the relevance, priority and potential of budgetary matters submitted by departments and agencies with a significant S&T content.

- Advises the Treasury Board Secretariat on the organization of S&T activities within departments and agencies.

- Monitors the impact of Ministry policies as reflected in the budgetary process.

- Analyses the composition and pattern of government expenditures in S&T and makes recommendations for improved utilization and development of S&T.

- Develops means of evaluating the effectiveness of S&T policies and programs.

- Promotes the use of effectiveness measures and good management techniques in federal government S&T programs.

- Conducts assessment assignments as required.

DOMESTIC BRANCH

CONTINUING OBJECTIVE

- To arrange for the optimum availability of collated information on S&T resources and activities of continuing interest to the Ministry and to expedite collective adjustments toward better development and utilization of S&T resources for the benefit of Canada among all sectors of the Canadian S&T community.

MAJOR FUNCTIONS

- Obtains or ensures access to information on S&T resources and activities in Canada and elsewhere of continuing interest to the Ministry.

- Provides analytical reviews of S&T conditions and affairs in Canada.

- Facilitates access to and improves utilization of S&T information in Canada.

- Provides forecasts of the situation and recommends desirable changes for the improved development and utilization of Highly Qualified Manpower in Canada.

- Advises on the impact and appreciation of federal S&T policies and initiatives from the point of view of provincial authorities and other sectors of the S&T community in Canada.

- Recommends on Ministry participation in S&T affairs in Canada and conducts consultations and negotiations as required.

- Explains federal S&T policies and initiatives to those directly affected or concerned.

S&T RESOURCES DIVISION

Continuing Objective

- To establish the optimum means of satisfying the Ministry's requirement for continuing information on S&T resources and activities and to make recommendations for the improved utilization of Scientific and Technical Information and Highly Qualified Manpower in Canada.

Major Functions

- Secures, stores and provides information on S&T resources and activities of continuing interest to the Ministry and satisfies external enquires to the extent possible.

- Prepares analytical reviews and displays of available information to assist policy development and advisory activities in the Ministry and for distribution within the scientific community.

- Formulates advice and recommendations on the development of national STI systems, networks and services and

participates in and monitors consequential activities as required.

- Prepares and makes available forecasts of the HQM supply and demand situation in Canada and recommends on how the development and utilization of HQM could be improved by Ministry initiatives, by federal policies and programs, by the efforts of non-federal policies and programs, by the efforts of non-federal organizations or by decisions of individuals.

COOPERATION DIVISION

Continuing Objective

- To improve the development and utilization of S&T resources in Canada by fostering a full understanding of federal policies and initiatives among provincial authorities and all sectors of the S&T community and by interpreting their views as a means of improving the policies and advice formulated by the Ministry.

Major Functions

- Maintains effective communication with provincial authorities, the S&T community and other pertinent decision centers in Canada.

- Explains and interprets federal S&T policies, initiatives and attitudes to those directly affected or concerned.

- Fosters a better awareness of Canadian objectives and priorities in S&T and the significance of S&T in pursuit of national goals.

- Undertakes special consultations outside the federal government as required.

- Obtains current views and appreciations from non-federal sectors regarding S&T concerns and issues as well as on specific federal S&T policies or initiatives.

- Identifies sources for information regularly required by the Ministry or for the assessment of the impact of specific federal policies and programs.

INTERNATIONAL BRANCH

CONTINUING OBJECTIVES

- To ensure that Canada derives optimum benefit from the worldwide development and diffusion of scientific and technological knowledge, and that Canada is adequately represented in international scientific and technological activities through collaboration with other government departments and agencies.

MAJOR FUNCTIONS

- Proposes policy initiatives for the Ministry related to international S&T activities and participates in their development as appropriate.

- Provides advice on the international S&T implications of policies, programs, and initiatives proposed to the government.

- Formulates and develops recommendations for Canadian participation in international S&T activities with other countries and pertinent multilateral organizations.

- Maintains an overview of Canadian international S&T policies and activities and promotes their effective coordination with related domestic activities.

- Ensures that the needs of the Ministry and other departments and agencies for information and data on scientific and technological policies, programs and activities in other countries and international organizations are efficiently fulfilled.

- Establishes agreed and consistent Canadian positions on international scientific and technological activities and issues.

- Organizes science and technology missions and visits to and from other countries.

- Supports the development of domestic policies and other activities of the Ministry and other science-based departments and agencies by conducting analyses and studies and providing advice on significant trends, developments, issues and organization of science and technology in other countries.

- Ensures the development of an effective science counsellor network and provides functional direction.

- Represents Canada or arranges for official Canadian representation at international science and technology meetings and conferences in which there is a national interest.

ANALYSIS AND PLANS DIVISION

Continuing Objective

- To ensure the development of longer term plans for deriving optimum national benefits from the expanding worldwide information in the field of science and technology through participation in international activities.

Major Functions

- Recommends on the national and optimum long term development of Canadian international scientific and technological relations which are consistent with the objectives and priorities of the Ministry and the Government of Canada.

- Ensures that the needs of the Ministry and requests from other departments and agencies for information and data on the substance, conduct and organization of worldwide science and technology are forecast and defined with sufficient lead time and precision for incorporation in Branch work plans and data systems of the Ministry as appropriate.

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- Develops a system to ensure that information and data on developments in worldwide science and technology are made available to the Ministry and other departments and agencies.

- Supports the development of policies by making recommendations, and planning and co-ordinating special comparative studies and analyses of international scientific and technological subjects.

- Plans the development of an effective science counsellor network and recommends on the numbers, distribution, operating procedures, selection and career development.

- Provides advice on federal-provincial relations in the field of science and technology arising from international activities and obligations.

MULTILATERAL DIVISION

Continuing Objective

- To ensure that Canada derives optimum benefit from participation in the scientific and technological activities of international multilateral organizations.

Major Functions

- Formulates through collaboration with other departments consistent national positions on activities and issues under consideration by international multilateral scientific and technological organizations.

- Provides federal departments and agencies with pertinent information on scientific and technological activities of international multilateral organizations and advises on these activities and their implications.

- Prepares and consolidates, in cooperation with other departments and agencies as appropriate, national reactions and responses to activities and issues in multilateral organizations.

- Provides or arranges Canadian representation for committees, panels, working groups, expert bodies, etc., of international multilateral organizations from government, university or private sectors as appropriate.

- Develops criteria for selection of international science and technology organizations in which Canada should participate and for the degree of Canadian involvement.

- Ensures that Canada's interests receive due consideration in the formulation of objectives and work programs of international multilateral organizations.

- Provides functional direction of science counsellors at Canadian missions abroad attached to multilateral organizations.

- Makes arrangements with appropriate departments and agencies on scientific and technological commitments and follow-up arising from international multilateral activities.

BILATERAL DIVISION

Continuing Objective

- To ensure that Canada derives optimum benefit from participation in international bilateral scientific and technological activities.

Major Functions

- Develops recommendations and objectives for Canadian bilateral international scientific and technological activities and advises other departments and agencies concerning the development and conduct of such activities.

- Prepares, consolidates and recommends, in cooperation with other departments and agencies as appropriate, national reactions and responses to initiatives in the bilateral scientific and technological sphere.

- Administers Canadian science and technology agreements and other cooperative arrangements with other countries.

- Provides advice and recommendations on the scientific and technological components of ICER Country Programs and assesses the effectiveness of these components.

- Arranges the collection of scientific and technological information and data from other countries and ensures that federal departments and agencies are properly informed.

- Provides functional direction of the science counsellors at Canadian embassies and high commissions abroad.

- Organizes and directs official government-sponsored science and technology meetings, missions and visits and arranges for follow-up action.

- Represents Canada or arranges for appropriate representation from government, university and the private sector at bilateral scientific and technological meetings abroad.

PERSONNEL, FINANCE AND ADMINISTRATION BRANCH

CONTINUING OBJECTIVE

To provide personnel, financial and administrative policies, programs and procedures that will improve the overall management effectiveness and efficiency of the Ministry and to provide advice and guidance to all levels of management on the optimum utilization of services in the areas of personnel, finance and administration.

MAJOR RESPONSIBILITY AREAS

- Advise and counsel the Secretary and other managers on matters affecting human resources, and provide essential services through such programs as the following: personnel policies and procedures, organization planning, compensation, staff relations, staffing, manpower planning, staff development and training, and bilingualism.
- Develop and coordinate systems and procedures necessary for the preparation of short and long-range program forecasts, budgets and estimates, and account for the budget through the development of an accounting and reporting system and regular analysis of financial trends.
- Develop, recommend and implement administrative plans and procedures and provide administrative services such as records management, material management and office services.

- Organize and administer a scientific library to serve the needs of the Ministry.

CCMPENSATION, ORGANIZATION AND STAFF RELATIONS

Pay Structures and Classification Standards

- consult with managers and employees on problems associated with particular pay structures, classification standards, allowances and benefits, and develop and submit proposals to Treasury Board.

Job Analysis and Evaluation

- advise and train managers and employees on job description writing,
- organize, coordinate and participate in job evaluation committees,
- process classification documents and maintain classification records,
- provide information and advice on the disposition of individual classification cases,
- develop and communicate Ministry guidelines on classification grievance administration to all employees.

Pay Analysis, Determination and Administration

- interpret and advise individuals and groups on pay plans, pay regulations and directives, and collective bargaining provisions relating to pay;
- provide advice to management and staffing officers on compensation aspects relating to SAPP, CAP, secondments, contract, term and casual employees;

- participate in committees, working groups, etc., dealing with pay administration matters, such as awarding performance pay increases, and ensure that any budgetary controls are not exceeded;
- prepare submissions to Treasury Board regarding pay budget controls, accelerated increases, special proposals, ex gratia payments, etc.;
- develop and maintain a system for pay documentation and record-keeping, including pay files, payroll statistics, and action payroll deductions and salary changes, etc.

Pensions, Insurance and other Non-Salary Compensation

- provide advice, register new employees, amend coverages, and process applications for benefits under federal and provincial pension programs and insurance plans;
- administer allowances, benefits and other forms of non-salary compensation;
- communicate information to employees on the benefits available under pension and insurance plans, allowances, and other non-salary items.

Organization Development

- consult with management on all new and revised organization structures;
- analyse organization problems and develop solutions;
- participate in committees, working groups, etc., charged

with reorganization or organization development;

- maintain all Ministry organization charts.

Staff Relations

- implement and administer collective agreements;
- develop and maintain Ministry grievance procedures, and administrative and policy guidelines;
- provide advice to management on the resolution of all complaints and grievances except those arising out of classification actions;
- consult with employee representatives on grievances;
- investigate, prepare and present the Employer's case for justification of managerial and confidential exclusions and designated employees;
- provide interpretations to management and employees of new agreements, arbitral awards and memoranda of agreement;
- develop and maintain Ministry policy, guidelines, administrative procedures and standards for the application of disciplinary action, involuntary separations and demotions;
- establish Ministry medical and health services in accordance with criteria established by Treasury Board and National Health and Welfare;
- implement all regulations, etc., issued by central agencies on occupational health and safety;

- develop a Ministry health and safety program, including mounting special programs for alcoholism and drug addiction, etc.;
- investigate accidents resulting in property damage and/or injury and recommend corrective action.

MANPOWER PLANNING, STAFF DEVELOPMENT AND TRAINING, STAFFING

- Develop a Ministry manpower planning program within which the activities of manpower planning, manpower management and staff development and training are integrated with appropriate inputs from all levels of management;
- Provide management with information on in-house qualifications, potential, work performance as well as short term and long term manpower requirements to meet the Ministry's needs either through internal development or external recruiting;
- Develop and make recommendations to management regarding an annual plan for staff development and training;
- Formulate and communicate staffing policies and procedures for the various levels and categories of the Ministry;
- Formulate plans on the basis of both long and short term objectives to provide an inventory of potential candidates based on the specialized needs of the Ministry and to identify and provide both replacement and interim staff;
- Implement the staffing program and carry out subsequent reviews to ensure its adequacy and efficiency;
- Counsel employees with regard to career development, promotional opportunities and Ministry training plans.

BILINGUALISM AND TRANSLATION SERVICES

- Advise on, and participate in, the development of the

Ministry's policy and programs on bilingualism;

- coordinate or administer the Ministry's language training program;
- Advise on the handling of grievances relating to the Ministry and Governmental policies on bilingualism;
- Advise and interpret to departmental employees the government's and the Ministry's bilingualism policy and programs;
- Establish and maintain records and statistics on the departments bilingualism programs, and employee data related to bilingualism;
- Develop and monitor Ministry practices and facilities relating to simultaneous and written translation.

FINANCIAL SERVICES

- Develop and implement a program planning and budgeting system;
- Participate in the development and coordination of Ministry program forecasts, estimate submissions and analysis of budgets for presentation to Treasury Board;
- Develop a Ministry accounting and reporting system and provide analysis of financial trends;
- Prepare submission to Treasury Board of those financial matters that exceed the Deputy Head's authority;
- Provide a liaison with Treasury Board Secretariat, Department

of Supply and Services, Auditor General's representative and other departments and agencies.

ADMINISTRATIVE SERVICES

- Plan, develop, co-ordinate, direct and control the Administrative Support Section;
- Advise the Director of Personnel, Finance and Administration and other officers of the Ministry on the planning, development and implementation of policies, procedures and practices relating to a complete range of administrative services;
- Establish goals, objectives and standards for the continued improvement in administrative operations of the Ministry which lead to more effective management;
- Originate and promulgate procedures and direct the preparation of directives and instructions relating to administrative matters affecting the Ministry;
- Conduct systems and methods studies in the administration services to ensure effective administration at minimum cost;
- Analyse, evaluate and recommend solutions to problems relating to the Ministry's administration;
- Direct and co-ordinate the material management section, including material procurement, inventory control, material receipt and issue;

Direct and co-ordinate the Office Services including accommodation planning, allocation and control; telephone planning and requisition; physical security and fire protection; Xerox and printing facilities; and audio-visual equipment and utilities.

LIBRARY SERVICES

- Determine the initial requirements, the means of acquiring material and the facilities for the collection of information;
- Develop systems for the rapid retrieval of S&T information and data using up-to-date techniques including computer oriented and other automated systems;
- Provide a rapid and effective reference service through the Ministry Library and by drawing upon the resources of other libraries;
- Prepare special bibliographies, review books, documents and obtain or provide it on loan either from or to other libraries;
- Prepare annual estimates for purchases, subscriptions and services.

INFORMATION SERVICES

CONTINUING OBJECTIVE

- To improve communicaticn to Canadians generally on the Ministry's programs and activities, and on the impact of S&T on societal trends and the quality of life.

MAJOR FUNCTIONS

- Establishes and maintains working relationships with the communications media and disseminates information for the Ministry.

- Recommends information and public relations support for Ministry activities.

- Monitors media coverage of S&T matters of interest to the Ministry and advises on appropriate action.

- Prepares major speeches for the Minister, Secretary, and senior staff and monitors press coverage and reaction.

- Conducts studies on the impact of information on S&T reaching the public and on their interests in

such material.

- Provides editorial advice and services with respect to Ministry publications.

- Arranges for the production and distribution of Ministry communications to the public.

- Acts as Parliamentary Returns Officer.

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