

5. Fields of medical R&D performed within this organization for the fiscal year ending in 2010

Please indicate the medical field in which R&D is performed within this organization.

		Yes	No			Yes	No
Cellular biology	C5067	1 <input type="radio"/>	3 <input type="radio"/>	Drugs and their effects	C5074	1 <input type="radio"/>	3 <input type="radio"/>
Genetics	C5068	1 <input type="radio"/>	3 <input type="radio"/>	Visual sciences <i>(e.g. ophthalmology, optometry and other eye related research)</i>	C5075	1 <input type="radio"/>	3 <input type="radio"/>
Immunology	C5069	1 <input type="radio"/>	3 <input type="radio"/>	Other medical fields <i>(please specify)</i>			
Endocrinology	C5070	1 <input type="radio"/>	3 <input type="radio"/>	a) C5176 <input type="text"/>	C5076	1 <input type="radio"/>	3 <input type="radio"/>
Nutrition and metabolism	C5071	1 <input type="radio"/>	3 <input type="radio"/>	b) C5177 <input type="text"/>	C5077	1 <input type="radio"/>	3 <input type="radio"/>
Cancer	C5072	1 <input type="radio"/>	3 <input type="radio"/>	c) C5178 <input type="text"/>	C5078	1 <input type="radio"/>	3 <input type="radio"/>
Haematology	C5073	1 <input type="radio"/>	3 <input type="radio"/>				

6. R&D expenditures by socio-economic objectives within this organization for the fiscal year ending in 2010

		CAN\$ thousands										
1. Exploration and exploitation of the Earth	C6117	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
2. Infrastructure and general planning of land use <i>(e.g. transport, telecommunications, other)</i>	C6118	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
3. Control and care of the environment	C6119	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
4. Protection and improvement of human health	C6120	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
5. Production, distribution and rational utilization of energy	C6121	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
6. Agricultural production and technology <i>(e.g. agriculture, fishing, forestry)</i>	C6122	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
7. Industrial production and technology	C6123	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
8. Social structures and relationships	C6124	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
9. Exploration and exploitation of space	C6125	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
10. Non-oriented research	C6126	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
11. Other civil research	C6127	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
12. Defence	C6128	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000
Total <i>(equal to the 2010 grand total expenditures of question 2 (cell C2044))</i>	C6129	\$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	000

COMMENTS

Reasons for major changes in reporting R&D expenditures and personnel

In order to eliminate the necessity to verify discrepancies between this report and your last return (fiscal year ending in 2009) please explain any significant changes which might be misconstrued as an error in reporting.

C9920

FOR INFORMATION ONLY

**Thank you for completing this questionnaire.
Please retain a copy for your records.**

INSTRUCTION GUIDE

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INSTRUCTION GUIDE

Please answer all questions. Since the required information cannot normally be readily extracted from available records, your best estimates will be quite satisfactory. The last survey was carried out for the fiscal year ending in 2009. You may have a file copy of your return which will help you now.

Additional forms and explanations of the terms used in the questions can be obtained from Statistics Canada: call **1-877-604-7828**.

Please return the completed questionnaire within 30 days of receipt.

If you are unable to do so, please inform us of the expected completion date. If you receive more than one copy of this survey questionnaire for the same private non-profit organization, please complete only one and return with duplicate(s). If you require assistance in the completion of this questionnaire or have any questions regarding the survey please address all enquiries to:

Statistics Canada
Ottawa, Ontario
K1A 0T6
Tel: 1-877-604-7828
Fax: 1-888-883-7999
Email: bssso@statcan.gc.ca

Definitions

Research and development (R&D) is creative work in the natural sciences and engineering, and social sciences and humanities fields undertaken on a systematic basis to increase the stock of knowledge or discover new applications for existing knowledge. New knowledge involves the integration of newly acquired information into existing hypotheses, the formulation and testing of new hypotheses or the re-evaluation of existing observations.

NOTE: Exclude all non-R&D activities (such as *investigative studies, medical care, social services, education and training, dissemination of information, etc.*), **which your organization undertakes or funds.**

To illustrate the distinction between R&D and investigative studies: the developing and testing of new methods for treating a neurosis is research. A study of psychiatric services in a region to suggest changes is an investigative study.

Major fields of R&D

- a) Natural sciences and engineering:
 - Medical sciences include medicine, dentistry, pharmacy, etc.
 - Other sciences include all disciplines in the natural sciences except the medical sciences (e.g. *mathematics, physics, chemistry, biology and engineering*).
- b) Social sciences and humanities include all disciplines involving the study of human actions and conditions,

and the social, economic and institutional mechanisms affecting humans (e.g. *economics, history, sociology*).

Expenditure types

Current expenditures are expenditures on items used up within a relatively short time period or costing relatively little. They include wages, salaries and related costs; materials and supplies used; necessary background literature; minor scientific equipment and associated administrative overhead costs.

Capital expenditures are expenditures on facilities such as buildings, equipment, machinery and land.

Exclude capital depreciation.

Questions 1 and 4 – Full Time Equivalent (FTE)

R&D may be carried out by persons who work solely on R&D projects or by persons who devote only part of their time to R&D, and the balance to other activities such as testing, quality control and production engineering. To arrive at the total effort devoted to R&D in terms of personnel, it is necessary to estimate the full-time equivalent of these persons working only part-time in R&D.

FTE = Number of persons who work solely on R&D projects + the estimate of time of persons working only part of their time on R&D.

Example calculation: If out of five scientists engaged in R&D work, one works solely on R&D projects and the remaining four devote only one quarter of their working time to R&D, then: $FTE = 1 + 1/4 + 1/4 + 1/4 + 1/4 = 2$ scientists.

Question 6 – Research and development (R&D) expenditures by socio-economic objectives

Socio-economic objectives allow organizations to classify their R&D resource allocations according to the purpose for which the expenditure is intended. The objectives are listed on the questionnaire at the highest level of aggregation with sub-levels given here for clarification of categories. In many cases, projects have multiple objectives and an organization should assign its expenditures consistent with the stated objectives. Care must be taken to avoid "double counting".

The objectives are based on the Nomenclature for the Analysis and Comparison of Scientific Programs and Budgets (NABS) produced by the Statistical Office of the European Communities (Eurostat).

1. Exploration and exploitation of the Earth

R&D activities with objectives related to the exploration of the Earth's crust and mantle, seas, oceans and atmosphere. It also includes climatic and meteorological research, polar exploration (under various headings, as appropriate) and hydrology.

Examples:

- Mineral, oil and natural gas prospecting
- Exploration and exploitation of the sea-bed

- Earth's crust and mantle excluding sea-bed and studies of soil for agriculture (objective 6)
- Hydrology – excludes R&D activities on: water supplied and disposal (objective 2) and water pollution (objective 3)
- Sea and oceans
- Atmosphere

Excludes: R&D activities on pollution (objective 3), soil improvement or land-use (objective 2), and fishing (objective 6).

2. Infrastructure and general planning of land use

R&D activities on infrastructure and land development, including research on the construction of buildings.

Transport systems

Covers scientific activities on transport systems, including road accident prevention and ancillary services such as electronic traffic aids and radar stations. Also included are general scientific activities on transport systems, road and rail traffic, inland waterway and sea transport, air traffic, pipeline transport systems, works transport systems, combined transport systems and scientific activities on the potential effects on the environment of the planning and operation of transport systems. Scientific activities on transport equipment is included only when it forms part of the coordinated programs for the development of improved and safer transport systems, otherwise, such research is classified in objective 7.

Telecommunication systems

Covers scientific activities on telecommunication services and the planning and organization of telecommunication networks. It includes, in particular, general scientific activities on telecommunication systems, telephones, telex, data transmission, radio and television (including cable TV).

Other scientific activities

Covers scientific activities on the infrastructure and general planning of land use.

Examples :

- General scientific activities
- General planning of land-use
- Construction and planning of buildings
- Civil engineering – excludes scientific activities on building materials and industrial processes (objective 7)
- Water supply

3. Control and care of the environment

Covers scientific activities into the control of pollution, aimed at the identification and analysis of the sources of pollution and their causes, and all pollutants, including their dispersal in the environment and the effects on man, species (fauna, flora, microorganisms)

and biosphere. Development of monitoring facilities for the measurement of all kinds of pollution is included. The same is valid for the elimination and prevention of all forms of pollution in all types of environment.

Examples :

- Protection of atmosphere and climate
- Protection of ambient air and water
- Solid waste
- Protection of soil and groundwater
- Noise and vibration
- Protection of species and habitats
- Protection against natural hazards
- Radioactive pollution
- Other scientific activities on the environment

4. Protection and improvement of human health

Scientific activities aimed at protecting, promoting and restoring human health broadly interpreted to include health aspects of nutrition and food hygiene. It ranges from preventative medicine, including all aspects of medical and surgical treatment, both for individuals and groups, and the provision of hospital and home care, to social medicine and pediatric and geriatric research.

Examples :

- Medical scientific activities, hospital treatment, surgery
- Preventive medicine
- Biomedical engineering and medicines
- Occupational medicine
- Nutrition and food hygiene
- Drug abuse and addiction
- Social medicine
- Hospital structure and organization of medical care

5. Production, distribution and rational utilization of energy

Covers scientific activities into the production, storage, transportation, distribution and rational use of all forms of energy. It also includes scientific activities on processes designed to increase the efficiency of energy production and distribution, and the study of energy conservation.

Examples :

- Fossil fuels and their derivatives
- Nuclear fission and fusion
- Radioactive waste management including decommissioning with regard to fuel/energy
- Renewable energy sources
- Rational utilization of energy

6. Agricultural production and technology

Covers all scientific activities on the promotion of agriculture, forestry, fisheries and foodstuff production. It includes: scientific activities on chemical fertilizers, biocides, biological pest control and the mechanization of agriculture; research on the impact of scientific activities in the field of developing food productivity and technology.

7. Industrial production and technology

Covers scientific activities on the improvement of industrial production and technology. It includes scientific activities on industrial products and their manufacturing processes except where they form an integral part of the pursuit of other objectives (e.g. defence, space, energy, agriculture).

Examples :

- Increasing economic efficiency and competitiveness
- Manufacturing and processing techniques
- Petrochemical and coal by-products
- Pharmaceutical products
- Manufacture of motor vehicles and other means of transport
- Aerospace equipment manufacturing and repairing
- Electronic and related industries
- Manufacture of electrical/non-electrical machinery and apparatus
- Medical and surgical equipment and orthopedic appliances, food products and beverages, clothing and textiles and leather goods
- Recycling

8. Social structures and relationships

Scientific activities on social objectives, as analyzed in particular by social and human sciences, which have no obvious connection with other objectives. This analysis includes quantitative, qualitative, organizational and forecasting aspects of social problems.

Examples :

- Education, training, recurrent education and retraining
- Cultural activities
- Management of businesses and institutions
- Improvement of working conditions
- Social security system
- Political structure of society
- Social change, social processes and social conflicts
- Other scientific activities with regard to society

9. Exploration and exploitation of space

All civil space scientific activities. Corresponding scientific activities in the defence field is classified in objective 12. (Although civil space research is not, in general, concerned with particular objectives, it frequently has a specific goal, such as the increase of general knowledge (e.g. astronomy), or relates to particular applications (e.g. telecommunication satellites)).

Examples :

- General scientific activities
- Scientific exploration of space
- Applied research programs
- Launch systems
- Space laboratories and space travel
- Other research on the exploration and exploitation of space

10. Non-oriented research

Basic activities motivated by scientific curiosity with the objective of increasing scientific knowledge. It also includes funding used to support postgraduate studies and fellowships.

Examples :

- Mathematics and Computer Sciences
- Physical Sciences
- Chemical Sciences
- Biological Sciences
- Earth and Related (Environmental) Sciences
- Engineering Sciences
- Medical Sciences
- Agricultural Sciences
- Social Sciences
- Humanities

11. Other civil research

Civil scientific activities which cannot (yet) be classified to a particular objective.

12. Defence

Covers scientific activities for military purposes. It also includes basic research and nuclear and space research financed by ministries of defence. Civil scientific activities financed by ministries of defence, for example, in the fields of meteorology, telecommunications and health, should be classified in the relevant objectives.

General information

Confidentiality

Your answers are confidential.

Statistics Canada is prohibited by law from releasing any information it collects which could identify any person, business, or organization, unless consent has been given by the respondent or as permitted by the Statistics Act. The confidentiality provisions of the Statistics Act are not affected by either the Access to Information Act or any other legislation. Therefore, for example, the Canada Revenue Agency cannot access identifiable survey records from Statistics Canada.

Information from this survey will be used for statistical purposes only and will be published in aggregate form only.

Data-sharing agreements

To reduce respondent burden, Statistics Canada has entered into data sharing agreements with provincial and territorial statistical agencies and other government organizations, which must keep the data confidential and use them only for statistical purposes. Statistics Canada will only share data from this survey with those organizations that have demonstrated a requirement to use the data.

Section 11 of the *Statistics Act* provides for the sharing of information with provincial and territorial statistical agencies that meet certain conditions. These agencies must have the legislative authority to collect the same information, on a mandatory basis, and the legislation must provide substantially the same provisions for confidentiality and penalties for disclosure of confidential information as the *Statistics Act*. Because these agencies have the legal authority to compel businesses to provide the same information, consent is not requested and businesses may not object to the sharing of the data.

For this survey, there are **Section 11** agreements with the Institut de la statistique du Québec

The shared data will be limited to information pertaining to business establishments located within the jurisdiction of the respective province or territory.

Section 12 of the *Statistics Act* provides for the sharing of information with federal, provincial or territorial government organizations. Under **Section 12**, you may refuse to share your information with any of these organizations by writing a letter of objection to the Chief Statistician and returning it with the completed questionnaire. Please specify the organizations with which you do not want to share your data.

For agreements with provincial and territorial government organizations, the shared data will be limited to information pertaining to business establishments located within the jurisdiction of the respective province or territory.

Record linkages

To enhance the data from this survey, Statistics Canada may combine it with information from other surveys or from administrative sources.

**Thank you for completing this questionnaire.
Please retain a copy for your records.**

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Please mail the completed questionnaire in the enclosed envelope
or fax it to Statistics Canada at **1-888-883-7999**.

Lost the return envelope or need help?

See instruction guide on page 9, call us at **1-877-604-7828** or mail to:

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150 Tunney's Pasture Driveway,
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