



Science and Technology Redesign Project

Survey of Intellectual Property Commercialization in the Higher Education Sector, 1998

Confidential when completed.

Collected under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19.

Si vous préférez ce questionnaire en français, veuillez nous appeler au (613) 951-2199.

In all correspondence concerning this questionnaire, please quote this three-digit reference number.

Please correct name and address, if necessary.



Purpose

The information you provide is essential to assure the availability of pertinent information to monitor science and technology related activities and to support the development of science and technology policy. Statistics Canada will create a database combining survey responses with other Statistics Canada records concerning your institution.

Confidentiality

While participation in this survey is voluntary, your cooperation is important to ensure that the information collected is as accurate and as comprehensive as possible. Statistics Canada is prohibited by law from publishing or releasing, in any manner, any statistics that would divulge information obtained from this survey relating to any identifiable business, institution or person, without the previous written consent of that business, institution or person. The data reported on this questionnaire will be treated in strict confidence, used for statistical purposes and published in aggregated form only. The confidentiality provisions of the Statistics Act are not affected by either the Access to Information Act or by any other legislation.

Questions?

If you require assistance in completing this questionnaire or have any questions regarding this survey, please call the sponsoring division collect: Statistics Canada, Science and Technology Redesign Project, 613-951-2199 (Call collect).

Survey Contact

Please indicate the name of the person completing this form so that we know who to contact should we have any questions.

Name	
Title	
Telephone Number () -	Fax Number () -
E-mail	

1. General Information

1.1 Please report your fiscal year (normal business year) ending at any time between April 1, 1997 and March 31, 1998.

This report covers months
(number)

From: | | 1 9 9 |
day month year

To: | | 1 9 9 |
day month year

5-4900-483.1: 1998-04-08 STC/SAT-465-75141

1.2 If your records do not permit separate reporting, list the names of all institutions (the main institution, affiliated colleges, related research institutes, teaching hospitals, etc.) included in your figures. Also, indicate whether or not they are engaged in intellectual property management (identification, protection, promotion or commercialization) by selecting YES or NO in the second column.

Name of Institution	Intellectual property management		Indicate type of affiliation with reporting institution (i.e., affiliated college, research institute, or other).
	Yes	No	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	
	1 <input type="radio"/>	2 <input type="radio"/>	

1.3 Infrastructure for intellectual property management

a. Does your institution have one or more central offices engaged in intellectual property management, including identification, protection, promotion or commercialization? 1 Yes 2 No



b. Please note the names, number of employees, and budget for patent applications during the reference year for all offices within the institution that are engaged in intellectual property management. If the employment has changed during the year, please indicate the number at the end of the year. *If there are more than three offices, list the additional ones on a separate sheet.*

Name of office engaged in intellectual property management	Number of full-time equivalents (persons)	Operational expenditures (\$ thousands)	Budget for patent applications (\$ thousands)
		\$	\$
		\$	\$
		\$	\$

c. If intellectual property is not managed centrally, please provide an explanation of how it is managed. *Use an additional sheet of paper, if necessary.*

1.4 Intellectual property policies

a. Is there a requirement to report the creation of the following types of intellectual property at your institution? *Please refer to the definitions in the accompanying handbook.*

b. To whom do these reports need to be made (for example, to a central office, to the Dean of the Faculty, to the Department Head)?

	<u>always</u>	<u>sometimes</u>	<u>never</u>		<u>Whom these reports need to be made to:</u>
Inventions	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Computer software or databases	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Literary, artistic, dramatic or musical works, books, papers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Educational materials	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Industrial designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Integrated circuit topographies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
New plant varieties	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	
Other (<i>please specify</i>)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	→	

c. Who normally owns the rights to each of the following types of intellectual property created at the institution: the institution, the researcher, the research contract sponsor? If the rights are shared, note this in the space provided.

d. If the royalties from licensing are **shared**, what percentage of the revenue is retained by the institution? If the percentage varies, please indicate the range and explain the conditions in the space provided.

	<u>institution</u>	<u>researcher</u>	<u>sponsor</u>	<u>shared</u>	<u>Percentage</u>	<u>notes</u>
Inventions	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Computer software or databases	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Literary, artistic, dramatic or musical works, books, papers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Educational materials	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Industrial designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Integrated circuit topographies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
New plant varieties	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%
Other (<i>please specify</i>)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	→	%

e. Please list any other policies in effect that influence the management of intellectual property created at the institution. *List the policies on an additional sheet of paper if necessary, or provide paper copies.*

1.5 Approaches to intellectual property management

a. How are intellectual property management activities most often initiated for new intellectual property?

check one

The discoverer (researcher) reports the discovery to the institution and requests consideration for protection and/or commercialization.

1

The institution monitors the activities of the researchers and notes which discoveries should be considered for protection and/or commercialization.

2

Other (please specify)

3

b. What are the main approaches to developing and commercializing the institution's intellectual property? For example, patenting and licensing could be managed by the technical transfer office or alternatively by a commercialization company. *Provide the response on a separate sheet of paper, if necessary.*

c. Please describe a typical case of intellectual property management at your institution. This description should include who took what action and at what time. *Provide your response on a separate sheet of paper, if necessary.*

1.6 Faculty consulting activities

Faculty consulting is an important means of transferring the institution's intellectual property to groups outside the institution.

a. Are the institution's faculty members required to report on external consulting activities?

1 **always**

2 **sometimes** → What are those conditions?

3 **never**

1.7 Research contracts

Research contracts often result in intellectual property being created in the form of inventions, computer software, databases, published papers, etc. This section requests information on the role of research contracts at your institution.

- a. What are your institution's policies concerning intellectual property resulting from research contracts? That is, who owns the rights to the intellectual property and who has the first rights to license it?

- b. During the reference year, how many research contracts were initiated, and what was the total value of the research contracts? *If the information is available by field of study, report the number and value of research contracts according to the Field of Study Classification detailed in the survey handbook, on a separate sheet of paper.*

Number of research contracts	Value of research contracts (\$ thousands)
	\$

- c. Who were the sponsors of the research contracts initiated during the reference year?

Research contracts initiated with:	Number of research contracts	Value of research contracts (\$ thousands)
Federal government		\$
Provincial and other levels of government		\$
Private business		\$
Non-governmental organizations		\$
Foreign companies		\$
Foreign governments		\$
International organizations		\$
Other (please specify)		\$

1.8 Barriers to intellectual property commercialization

- a. Are you aware of any instances where the rights to intellectual property (for example, patent rights) have been lost due to the invention having been publicly disclosed (published or otherwise made public) before the rights had been secured?

1 Yes 2 No

- b. Have there been any instances of the institution not gaining the maximum benefit from its intellectual property?

1 Yes → What were some of the reasons for this? _____

2 No

2. Identifying Intellectual Property

2.1 Each form of intellectual property (see the handbook for full definitions), if reporting is required, may require a different reporting procedure. Inventions, for example, normally have a formal disclosure procedure.

Indicate the number of new reports or disclosures, during the reference year, for all forms of intellectual property that require reporting to the institution central administration.

	Number of reports
Inventions	
Computer software or databases	
Literary, artistic, dramatic or musical works, books, papers	
Educational materials	
Industrial designs	
Trademarks	
Integrated circuit topographies	
New plant varieties	
Other (please specify):	

3. Protecting Intellectual Property

3.1 Has the institution engaged in any of the following forms of intellectual property protection over the past 5 years?

Indicate YES in the column provided, whether or not the action was completed. These are more fully defined in the handbook.

	Yes	No	Do not know
Patent applications	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Copyrighting of computer software or databases	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Copyrighting of literary, artistic, dramatic or musical works, book, papers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Copyrighting of educational materials	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Industrial design registrations	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Registrations of trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Integrated circuit topography registrations	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Applications for plant breeder's rights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Trade secret agreements	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
Other (please specify):	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

3.2 Protecting intellectual property requires effort, and often expenditures, by the institution. Not all reports of intellectual property creation detailed in Question 2.1 above require or merit further action by the institution. In some cases, the institution may not be able to afford the time or money to engage in protection.

During the reference year, how many protection activities were initiated? Note that this is independent of the number reported in Question 2.1 since there is often a time lag between reporting and initiating the protection activity. Furthermore, one intellectual property (such as a computer program) could be protected using several forms such as patents, copyrights, trademarks and trade secret agreements. This should not include continuations of processes initiated in previous years.

	Number of activities
Patent applications	
Copyrighting of computer software or databases	
Copyrighting of literary, artistic, dramatic or musical works, book, papers	
Copyrighting of educational materials	
Industrial design registrations	
Registrations of trademarks	
Integrated circuit topography registrations	
Applications for plant breeder's rights	
Trade secret agreements	
Other (please specify):	

3.3 Patent applications and patents issued

During the reference year, how many patents were applied for and issued with the support of the institution, whether or not the institution retains the rights. *Wherever possible, the information should be provided by field of study (see the handbook for full definitions). If details are not available by field of study, please report the total number for the institution.*

	New patent applications	Canada	Patents issued in:	US	other	TOTAL
1. Educational, Recreational and Counselling Services						
2. Fine and Applied Arts						
3. Humanities and Related Fields						
4. Social Sciences and Related Fields						
5. Commerce, Management and Business Administration						
6. Agriculture and Biological Sciences/Technologies						
7. Engineering and Applied Sciences						
8. Engineering and Applied Science Technologies and Trades						
9. Health Professions, Sciences and Technologies						
10. Mathematics and Physical Sciences						
11. All other not elsewhere classified						
TOTAL						

Patents held in:			
Canada	US	other	TOTAL

Total patents held including patents issued this year

4. Exploitation of Intellectual Property by the Institution

4.1 Intellectual property promotion activities

a. Under what conditions does the institution engage in activities that are intended to promote its intellectual property? This refers to market studies, business plans, feasibility studies, scale-up projects, demonstrations, prototype developments, licensing studies and other related activities.

b. Number of intellectual properties benefiting from promotion activities initiated during the reference year (number)

c. Total expenditures on promotion activities during the reference year \$ (\$ thousands)

4.2 Licenses

Most commercialization activities result in a license being executed with another organization, whether this is for licensing a patented invention, computer software or a logo. In this section, please report the number of new licenses executed during the reference year and the total number of active licenses at the end of the reference year. If detailed figures are not available, please report totals in the appropriate cells.

a. **New licenses** executed with **Canadian** companies during the reference year:

- That are sponsors of research contracts
- That are not sponsors of research contracts
- **Total**

b. **Total active licenses** with **Canadian** companies at the end of the reference year:

- That are sponsors of research contracts
- That are not sponsors of research contracts
- **Total**

c. **New licenses** executed with companies in the **United States and other foreign countries** during the reference year

d. **Total active licenses** with companies in the **United States and other foreign countries** at the end of the reference year

	Exclusive (number)	Non-exclusive (number)	TOTAL (number)

4.3 Royalties received

During the reference year, what was the total amount of royalties received from active licenses? Include license issue fees, running royalties, software and database end-user license fees, and any other royalties. Exclude cashed-in equity from spin-off companies.

	FROM:		
	Canadian sources (\$ thousands)	foreign sources (\$ thousands)	TOTAL (\$ thousands)
Royalties received during the reference year	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

4.4 If there were other substantial sources of income related to intellectual property commercialization, indicate the source of the income and the total amount.

Other sources of income not covered by royalties
(specify)

FROM:		
Canadian sources (\$ thousands)	foreign sources (\$ thousands)	TOTAL (\$ thousands)
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____

5. Impacts of Intellectual Property Commercialization

- 5.1 New companies may be established to either:
- (1) license the institution's technology,
 - (2) fund research at the institution in order to develop technology that will be licensed by the company, or
 - (3) provide a service which was originally offered through an institution's department or unit.

These companies are often called **spin-offs**. A subset of these, those dependent on licensing the institution's intellectual property, are called **start-ups**.

In the space provided below (and on additional pages, if required), list the legal names of all spin-off companies, the year of their incorporation, the company status, technology sector, institutional link, and the percentage of the company owned by your institution.

Legal name	Year Incorporated	Company Status (conceptual stage, early stage, active, merged, inactive, closed)	Technology sector (information, medicine, engineering, physical sciences, etc.)	Institutional link (licensing or R & D)	% of company owned
					%
					%
					%
					%
					%
					%
					%
					%
					%
					%

5.2 During the reference year, what was the total value of dividends received from these spin-off companies (not including disposition of equity)?

\$ _____

(\$ thousands)

5.3 During the reference year, what was the amount received from disposition of equity holdings in spin-off companies?

\$ _____

(\$ thousands)

5.4 What was the value of remaining equity in spin-off companies at the end of the reference year?

\$ _____

(\$ thousands)

6. Respondent Feedback

6.1 We are committed to minimizing the burden placed on our respondents while obtaining quality statistics. Please answer the following questions to help us fine-tune the survey.

a. How much effort was required to complete the survey?

person-hours

b. In your opinion, which was the most difficult question to answer?

question number

c. Did you find the questions and classifications used in the survey compatible with your own accounting systems?

1 **Yes**

2 **No** → If not, please comment on how the concepts and classifications could be changed to be more compatible.

6.2 Other comments

Thank you for your cooperation !