



Science, Innovation and Electronic Information Division

# Survey of Intellectual Property Commercialization in the Higher Education Sector, 2001

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.

## For information only - pour information seulement

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 Innovation and Electronic Information Division, 613-951-2199 (Call collect).

### Survey Contact

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

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

## 1. General Information

1.1 Please report your fiscal or other business year ending between April 1, 2000 and March 31, 2001.

This report covers  months  
(number)

From:    2 | 0 | 0 |  
day month year

To:    2 | 0 | 0 |  
day month year

5-4900-483.1: 2001-08-07 STC/SAT-465-75141

**1.2** If possible, please complete a separate questionnaire for each affiliated institution. If your records do not permit separate reporting, list the names of all institutions 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 main institution (i.e., affiliated college, research institute, research hospital or other).
	Yes	No	
	1 <input type="radio"/>	2 <input type="radio"/>	Main institution
	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 Intellectual property management infrastructure and expenditures**

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 of all offices within the institution that are engaged, wholly or in part, in IP management. For each office, indicate the resources dedicated to IP management. "Full-time equivalents" (FTEs) is an estimate of the number of person-years. Expenditures should be estimated to correspond to the portion of the office dedicated to IP management. "Legal costs" include those for patent searches, registration of copyrights, lawyers' fees, court costs, etc. "Operational expenditures" exclude expenditures on equipment.

Name of office	Employees dedicated to IP management	Operational expenditures for IP management				
		Salaries (corresponding to FTEs)	Expenditures on patent applications	Legal costs	Other operational expenditures	Total operational expenditures for IP management
	<i>(FTEs)</i>	<i>(\$ thousands)</i>				

c. Do any of the employees referred to above have a university degree specializing in technology management? 1  Yes    2  No

d. If there is no IP management at the institution, please provide an explanation.

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e. Does the institution own and/or operate a research park or business incubator?

1  Yes      2  No



If so, please provide the following information about the research park or business incubator:

Name	Employees of your institution engaged in park or incubator activities	Expenditures by your institution on research parks or business incubators (\$ thousands)		
	Number of full time equivalents (FTEs)	Salaries (corresponding to FTEs)	Other expenditures	Total expenditures

**1.4 Intellectual property policies (excluding research contracts)**

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.*

	<u>check one</u>				
	<u>always</u>	<u>sometimes</u>	<u>never</u>	<u>no policy</u>	<u>no such IP at this institution</u>
Inventions	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Computer software or databases	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <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"/>	5 <input type="radio"/>
Educational materials	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Industrial designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Integrated circuit topographies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
New plant varieties	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Know-how	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
Other (please specify)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>

b. Who owns the intellectual property created at the institution?

	The institution owns	The researcher owns	Joint ownership (institution and researcher)	No policy on ownership	Other (please specify)
Inventions	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	
Computer software and 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"/>	
Know-how	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	
Other (please specify)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	

c. What percentage (range) of the royalties from licensing IP is normally awarded to the researcher? Please specify whether this percentage is of gross or net royalties. (Net royalties are gross royalties minus the cost of patenting and licensing the IP.)

	<u>% of royalties awarded the researcher</u>	<u>% of net royalties</u>	<u>% of gross royalties</u>
Inventions	%	1 <input type="radio"/>	2 <input type="radio"/>
Computer software and databases	%	1 <input type="radio"/>	2 <input type="radio"/>
Literary, artistic, dramatic or musical works, books, papers	%	1 <input type="radio"/>	2 <input type="radio"/>
Educational materials	%	1 <input type="radio"/>	2 <input type="radio"/>
Industrial designs	%	1 <input type="radio"/>	2 <input type="radio"/>
Trademarks	%	1 <input type="radio"/>	2 <input type="radio"/>
Integrated circuit topographies	%	1 <input type="radio"/>	2 <input type="radio"/>
New plant varieties	%	1 <input type="radio"/>	2 <input type="radio"/>
Know-how	%	1 <input type="radio"/>	2 <input type="radio"/>
Other (please specify)	%	1 <input type="radio"/>	2 <input type="radio"/>

d. During the reference year, were any inventions created by students reported to the institution? 1  Yes 2  No 3  Don't know

e. How does the institution manage inventions created by students?

(Check one)

- The institution has no policies on inventions created by either faculty or students.
- The institution has policies for faculty but not for students.
- The institution has policies for students but not for faculty.
- The same policies apply to both faculty and students.
- Different policies apply to student-created inventions.  
(Please specify the policy differences and/or attach copies of student policies.)

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### 1.5 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 regarding intellectual property arising from research contracts:

Who owns the intellectual property? \_\_\_\_\_

Who has the first rights to license the intellectual property? \_\_\_\_\_

b. Please provide the following information for research contracts in effect during the reference year. For multi-year contracts, please prorate the total amount of the contract for the reference year. See the handbook for detailed definitions of "Canadian" and "foreign". If there is any doubt about the classification of the sponsor, please provide the name and address and Statistics Canada will provide the appropriate classification.

Sponsor	Number of contracts	Value of contracts (\$ thousands)
Federal government		
Provincial and other levels of government		
Canadian businesses		
Canadian organizations		
Foreign governments		
Foreign businesses		
Foreign organizations		
Other (please specify)   _____		
<b>Total</b>		

## 1.6 Barriers to intellectual property commercialization

a. Are you aware of any instances where the benefit from intellectual property developed at your institution was realized by another country? For example, a researcher prematurely disclosed an invention that was subsequently commercialized in a foreign country.

1  Yes (please describe) → \_\_\_\_\_

2  No \_\_\_\_\_

\_\_\_\_\_

b. Have there been any other instances where the institution has not gained the maximum benefit from intellectual property developed there?

1  Yes (please describe) → \_\_\_\_\_

2  No \_\_\_\_\_

\_\_\_\_\_

## 1.7 Approaches to intellectual property management

a. How is new intellectual property identified at the institution?

check one

The researcher is primarily responsible for recognizing the discovery and its potential, reporting it to the institution and requesting consideration for protection and commercialization.

1

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

2

The institution actively solicits opportunities for commercialization and promotes the IP by providing advice and assistance to the researchers at various stages.

3

Other (*please specify*)

4

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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 technology transfer office or alternatively by a commercialization company. *Provide the response on a separate sheet of paper, if necessary.*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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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.*

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### 1.8 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**

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## 2. Identifying Intellectual Property

2.1 Indicate the number of new intellectual properties reported or disclosed to the institution during the reference year.

Inventions

Computer software and databases

Literary, artistic, dramatic or musical works, books, papers

Educational materials

Industrial designs

Trademarks

Integrated circuit topographies

New plant varieties

Know-how

Other (*please specify*)

	Number of reports
Inventions	
Computer software and databases	
Literary, artistic, dramatic or musical works, books, papers	
Educational materials	
Industrial designs	
Trademarks	
Integrated circuit topographies	
New plant varieties	
Know-how	
Other ( <i>please specify</i> )	

### 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.

IP protection activity	Yes	No
Filing of patent applications	1 <input type="radio"/>	2 <input type="radio"/>
Registration of copyright for computer software or databases	1 <input type="radio"/>	2 <input type="radio"/>
Registration of copyright for literary, artistic, dramatic or musical works, books, papers	1 <input type="radio"/>	2 <input type="radio"/>
Registration of copyright for educational materials	1 <input type="radio"/>	2 <input type="radio"/>
Registration of industrial designs	1 <input type="radio"/>	2 <input type="radio"/>
Filing for protection of trademarks	1 <input type="radio"/>	2 <input type="radio"/>
Registration of integrated circuit topographies	1 <input type="radio"/>	2 <input type="radio"/>
Filing of applications for plant breeders' rights	1 <input type="radio"/>	2 <input type="radio"/>
Signing of non-disclosure or confidentiality agreements	1 <input type="radio"/>	2 <input type="radio"/>
Other (please specify)	1 <input type="radio"/>	2 <input type="radio"/>
<input type="text"/>		

3.2 During the reference year, how many intellectual properties resulted in protection activity?

	Number that resulted in protection activity
Inventions	<input type="text"/>
Computer software and databases	<input type="text"/>
Literary, artistic, dramatic or musical works, books, papers	<input type="text"/>
Educational materials	<input type="text"/>
Industrial designs	<input type="text"/>
Trademarks	<input type="text"/>
Integrated circuit topographies	<input type="text"/>
New plant varieties	<input type="text"/>
Know-how	<input type="text"/>
Other (please specify)	<input type="text"/>
<input type="text"/>	



### 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. International (for example, Patent Cooperation Treaty applications, PCT) and regional applications (European Patent Office applications) should be counted as **single applications**.

	New patent applications	Patents issued in:			
		Canada	US	other	TOTAL
1. Commerce, Management and Business Administration					
2. Agriculture and Biological Sciences/Technologies					
3. Engineering and Applied Sciences					
4. Health Professions, Sciences and Technologies					
5. Mathematics and Physical Sciences					
6. All other not elsewhere classified					
<b>TOTAL</b>					

  

	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. During the reference year, did the institution engage in any of the following intellectual property promotion activities? (*Check all that apply.*)

- 1  Developing or implementing business plans or similar studies (market, feasibility, licensing, etc.)
- 2  Developing or demonstrating prototypes, scale-up projects or similar activities
- 3  Advertising licensing or other collaborative opportunities on the Internet
- 4  Contacting potential licensees or other collaborators directly
- 5  The institution does not actively promote its intellectual property.
- 6  Other intellectual property promotion activities (*specify*)

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

	( <i>number</i> )
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c. Total expenditures on promotion activities during the reference year

\$	( <i>\$ thousands</i> )
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## 4.2 Licenses

Please report the number of new licenses executed during the reference year and the number of active licenses at the end of the year. If detailed figures are not available, please report totals in the appropriate cells. See the handbook for detailed definitions of "Canadian" and "foreign". If in doubt, please provide the name of the licensee and Statistics Canada will assign the appropriate classification.

	Exclusive or sole licenses	Non-exclusive or multiple licenses	TOTAL
a. <b>New licenses</b> executed with Canadian licensees that were:			
i) sponsors of research contracts or participants in collaborative activities			
ii) not involved in generating the technology licensed			
iii) Total new licenses with Canadian licensees (a.i + a.ii)			
b. i) <b>New licenses</b> with foreign licensees			
ii) Total new licenses (a.iii + b.i)			
c. <b>Active licenses</b> with Canadian licensees that were:			
i) sponsors of research contracts or participants in collaborative activities			
ii) not involved in generating the technology licensed			
iii) Total active licenses with Canadian licensees (c.i + c.ii)			
d. i) <b>Active licenses</b> with foreign licensees			
ii) Total active licenses (c.iii + d.i)			

## 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. See the handbook for detailed definitions of "Canadian" and "foreign". Exclude cashed-in equity from spin-off companies.

	FROM:		
	Canadian sources (\$ thousands)	Foreign sources (\$ thousands)	TOTAL (\$ thousands)
Royalties received during the reference year	\$	\$	\$

4.4 On a separate sheet, please provide a list of technologies licensed and the licensee. In the case of software and database licenses, list only the licenses with a value of over \$1,000.

4.5 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 that 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 (biotechnology, medicine, engineering, physical sciences, etc.)	Institutional link (licensing, R & D or service)	% 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.

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6.2 Other comments

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**Thank you for your cooperation !**