Intellectual property management, 2001/2002 fiscal year 1 General Information							
<b>Establishments generating, managing or commercializing IP</b> This survey covers intellectual property arising from the R&D activities of Federal Natural Science- Based Departments and Agencies. Please list the names of the organizations (directorates, services, R&D establishments, etc.) included in your figures. <i>Use an additional sheet of paper, if required.</i>							
Also, indicate whether or not they are engaged in intellectual property management (identificati protection, promotion or commercialization).							
Engaged in IP managem           Name of establishment         Yes         No							
		No					
	O	O					
	0						
	$\langle Q \rangle \rangle$	• •					
C	$\langle \phi \rangle$	0					
	6	0					
	0	0					
	0	0					
	0	0					
$\searrow$							
<ul> <li>1.2 IP management infrastructure and expenditures</li> <li>1.2 a. In your organization, intellectual property management, (including identification, promotion and com mercialization) is conducted by (check one):</li> <li>O The individual establishment</li> <li>O A corporate-level office</li> </ul>							
<ul> <li>A combination of the above</li> <li>1.2 b. For each level, indicate the resources dedicated to IP management. "Full-time equivalents" (FTEs) is an estimate of the number of person-years. "Expenditures on patent applications" include patent searches. "Legal costs" include costs of patent filing, examination, prosecution and litigation. Patent-related expenditures such as maintenance, monitoring and enforcement should be included under "other operational costs". <i>Please see the Respondent Guide for a detailed description of the categories</i>.</li> </ul>							
		Total					
tent Legal	Other operational expenditures	operational expenditures for IP management					
(\$ thousands	s)						
specify)							
	ializing IP P R&D activities of es of the organizate an additional she ectual property match ectual property match E t, (including identif management. "Fu ures on patent appresent and enforcement Guide for a detailer onal expenditures for itures tent tions Legal costs	ializing IP P R&D activities of Federal Natures of the organizations (director P an additional sheet of paper, if ectual property management (id Engaged in IP n Yes Ves Ves Ves Ves Ves Ves Ves V					

1.3	Contracts and collaborative arrangements					
	R&D 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 contracts and collaborative arrangements in your organization.					
	We will obtain information on R&D contracted out from the main Federal Science Expenditures and Personnel survey.					
	For the purpose of this survey,					
	<ul> <li>"contracting in" refers to arrangements in which your or ganization to conduct R&amp;D activities;</li> <li>"contracting out" refers to arrangements in which your or tractor to conduct R&amp;D activities;</li> <li>"collaborative arrangements" are formal joint R&amp;D activities ("contracting out").</li> </ul>	organization pays	an external con-			
a.	What are your organization's policies concerning intellectual pro in? That is, who owns the rights to the intellectual property and	perty resulting fro who has the first	ights to license it?			
		$\overline{\bigcirc}$				
		$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$				
b.	What are your organization's policies concerning intellectual property arising from collaborative R&D arrangements?					
	$(\xi (\bigcirc))$					
c.	Who were the sponsors of the R&D contracts undertaken during					
	R&D contracted in from:	Number of contracts	Value of contracts (\$ thousands)			
	Federal government					
	Provincial and other levels of Canadian government					
	Canadian business					
	Other Canadian organizations					
	Foreign governments					
	Foreign business					
	Other foreign organizations					
	Multi-stakeholder groups (e.g., consortia)					
	Other (please specify)					

IP are defined more fully in the Respondent Guide.	Number o	f reports of IP	arising fr	om		
	In-house		Collabora			
Type of intellectual property reported	activities	Contracts	activ	ities		
Inventions						
Computer software or databases						
Literary, artistic, dramatic or musical works, books, papers			n			
Educational materials						
Industrial designs			2			
Trademarks			$\mathcal{V}$			
Integrated circuit topographies						
New plant varieties		()				
Know-how						
	$\langle \rangle$					
Other (please specify):						
Protecting intellectual property IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.	rms of intellectu her or not the a	ial property pr ction was com	pleted. 7	Thes		
IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity	rms of intellectu her or not the a	ual property pr ction was com	Yes	hes N		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications	rms of intellectu her or not the a	ual property pr ction was com	Yes	Thes N		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches	rms of intellectu her or not the a	al property pr ction was com	Yes O O	hes (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches Patent prosecutions	rms of intellectu her or not the a	ual property pr ction was com	Yes O O O	Thes ( (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications	her or not the a	al property pr ction was com	Yes O O O O O	N           (           (           (           (           (           (           (           (           (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer software	her or not the a	ction was com	Yes O O O O O O	N           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, d	her or not the a	ction was com	Yes O O O O O	N           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer software	her or not the a	ction was com	Yes O O O O O O O	N           (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, di books or papers	her or not the a re or databases ramatic or musica	ction was com	Yes O O O O O O	N           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (           (		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide.  Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, d books or papers Application for registration of copyright for educational mate	her or not the a re or databases ramatic or musica	ction was com	Yes O O O O O O O O O O	N           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()           ()		
IP Protection activities Has the organization engaged in any of the following fo past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, d books or papers Application for registration of integrated circuit topographies	her or not the a re or databases ramatic or musica	ction was com	Yes Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	N           ()		
IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for educational mate Application for registration of integrated circuit topographies Filing for protection of trademarks	her or not the a re or databases ramatic or musica	ction was com	Yes Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	N           (		
IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, d books or papers Application for registration of copyright for educational mate Application for registration of integrated circuit topographies Filing for protection of trademarks Application for registration of integrated circuit topography	her or not the a re or databases ramatic or musica	ction was com	Yes           Q	N           ((           (           (           (           (           (           (           (           (           (           (           (           (           (           (		
IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for educational mate Application for registration of integrated circuit topographies Filing for protection of trademarks Application for registration of integrated circuit topography Filing application for plant breeder's rights	her or not the a re or databases ramatic or musica	ction was com	Yes O O O O O O O O O O O O O O O O O O O	N           ()		
IP Protection activities Has the organization engaged in any of the following for past 5 years? Check YES in the column provided, whet are more fully defined in the Respondent Guide. Protection activity Filing patent applications Prior art searches Patent prosecutions Patent cooperation treaty applications Application for registration of copyright for computer softwar Application for registration of copyright for literary, artistic, d books or papers Application for registration of copyright for educational mate Application for registration of integrated circuit topographies Filing for protection of trademarks Application for registration of integrated circuit topography Filing application for plant breeder's rights Materials transfer agreement	her or not the a re or databases ramatic or musica	ction was com	Yes         Q         <	N           ((           (           ( <t< td=""></t<>		

3.2	Intellectual properties re	sulting i	n protect	ion activi	ty				
	During the reference year,	how mar	ny intellec	tual prope	erties resu	Ited in pr	otection a	ctivity?	
			-	· · ·				er that resu	
	Type of intellectual property					protection activity			
	Inventions								
	Computer software or datab								
	Literary, artistic, dramatic or musical works, books, papers								
	Educational materials								
	Industrial designs								
	Trademarks								
	Integrated circuit topograph	ies					$\square$		
	New plant varieties								
	Know-how							$\overline{)}$	
							$\langle \bigcirc \rangle$	$\rightarrow$ $\checkmark$	
	Other (please specify):						$\sim \sim \sim$		
						((	))		
3.3	Patents				/				
a.	During the reference year	, how ma	ny patent	s were ap	plied for a	and issue	d to the o	rganizatior	n? Inter-
	national (for example, Pat	tent Coop	eration T	reaty appl	ications, I	CT) and	regional	application	ns (e.g.,
	European Patent Office a				$\langle \langle \rangle \rangle$	gle applie	cations.		
		New	v patent a	pplication	$\sim \sim \rightarrow$		Patents i	issued in:	
				Other	Total applica-			Other	Total
	Field of technology	Canada	US	foreign	tions	Canada	US	foreign	issued
	Commerce, management,			$\bigcirc$					
	business, administration Agriculture and biological			₩					
	sciences and		$\langle \langle \rangle$	>					
	technologies	$\wedge$	$\square$						
	Engineering and applied sciences	$\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i$	Ð						
	Health professions, sci-		-						
	ences and technologies	$\langle ( ) \rangle$							
	Mathematics and physical	$\searrow$							
	Sciences	$\checkmark$							
	elsewhere classified								
	/ (0)								
b.	Patents held and patents	pending						Other	
						Cana	da US	Other foreign	Total
	Total patents held (including	patents is	ssued duri	na the refe	rence vear			Ŭ	
	Total patents pending	, , , , , , , , , , , , , , , , , , ,		0	,	,			
							J		

	Exclusive or sole	Non- exclusive or multiple	
1 New licenses (total of t a + t b)	license	license	Tota
1. New licenses (total of 1.a + 1.b)			
a. New licenses with Canadian licensees, of which were			
i) sponsors of research contracts, contractors or collaborators	^	$\longrightarrow \lor$	
ii) not involved in generating the technology being licensed			
b. New licenses with foreign companies	$(\bigcirc$		
2. Active licenses (total of 2.a + 2.b)	$\sim$		
a. Active licenses with Canadian licensees, of which were	$\langle \rangle$		
i) sponsors of research contracts, contractors or collaborators			
ii) not involved in generating the technology being licensed	)		
b. Active licenses with foreign companies			
		buobu.	
What were the sources of the technologies upon which the new Technology source	vincenses are	Total new	license
	vincenses are		license
Technology source       In-house activities       External activities (contracting put)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources         Other (please specific)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources         Other (please specific)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources         Other (please specify)			license
Technology source         In-house activities         External activities (contracting out)         External activities (contracting in)         Collaborative activities         Multiple sources         Other (please specify)			license

## 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.

	Canadian licensees	Foreign licensees	Total
Royalties received from IP arising from:		\$ thousands	
In-house activities			
External activities (contracting out)			
External activities (contracting in)			
Collaborative activities			
Multiple sources		$\bigwedge \bigwedge$	7/
			$\sum$
Other (please specify)		$\langle \langle \rangle \rangle$	Ŷ
Total		$\bigcirc$	

### 5 Impacts of IP transfer

# 5.1 Spin-offs

New companies are often formed to commercialize technologies that are owned by public sector organizations. Spin-offs can result from several instituțional arrangements:

- Licensing: A new company is formed to license and commercialize the organization's technology (these are sometimes called start-ups)
- **R&D** A new company funds research at the organization to develop technologies that it plans to license.
- Service a new company is formed to provide a service that was originally offered through the organization. This also includes employee takeovers, or companies that are started by former employees on an arrangement to commercialize the technology.

List the legal names of spin-off companies incorporated within the past 10 years, their year of incorporation, the company status (conceptual stage, early stage, active, merged, inactive, closed), technology sector (refer to the technology sector classification provided for Question 3.3) and the institutional link (licensing, R&D, service or other).

Legal name	Year incorporated	Company status	Technology sector	Institutional link
Use additional sheets of paper, if necessary.				

## **Respondent guide**

This questionnaire, in general, covers the intellectual property generated from R&D activities. We acknowledge that commercializable IP arises from other activities as well and that it may be difficult to differentiate. Whenever possible, please report figures for IP generated from R&D activities. If this is not possible, please note that the figures include IP generated from non-R&D activities.

If exact numbers are not readily available, please provide estimates with a note indicating this.

Please do not leave any question blank. Enter zero responses with the digit "0" if the value is known to be zero. If the data are not available, enter "N/A". In cases where the question is not applicable, please indicate this.

Report all dollar amounts in Canadian dollars (generally in thousands).

#### Notes on survey questions

- This is to determine the overall coverage of the response. If only part of the organization is covered, please note this here. If discernable groups within the organization generate IP, please list them here.
- 1.2b. The term "operational expenditures" is intended to capture all expenditures except for those on capital equipment. The sub-categories are as follows:
  - Salaries
    - Expenditures on patent applications, including:
      - Initial description and reporting of invention
      - Inventor determination
      - Patent searches
      - Prior art searches
      - Patent validation
    - Legal Costs, including:
      - Patent application preparation
      - Ratent filing (Domestic and off-shore)
      - Patent examination and prosecution
      - Litigation
  - Other operational expenditures, including:
    - Case administration
    - Patent maintenance
    - Awards management
    - Monitoring, enforcement and exploitation
    - Patent infringement
  - Total this should be the sum of the above

- 1.3 Intellectual property includes:
  - "Invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter (Public Servants Inventions Act. R.S., c. P-31, s. 1.). Some inventions are patentable in some jurisdictions but not in others: these include novel geneticallyengineered life forms, new microbial life forms, methods of medical treatment and computer software.
  - Copyrightable intellectual property has been broken into three groups:
    - Computer software or databases: As noted above, computer software can be patented but normally it is protected by copyright. Databases may also be copyrighted.
    - Literary, artistic, dramatic or musical works, books, papers: This category includes any copyrightable works other than computer software and databases and special educational materials as noted below.
      - Educational materials as noted below. Educational materials: This category includes special materials that may be copyrighted but are not necessarily in the form of printed books. This could include broadcast lessons, Internet pages, booklets, posters or computer files, among others.
  - Industrial designs: These are original shapes, patterns or ornamentations applied to a manufactured article. Industrial designs are protected by registration with the Canadian Intellectual Property Office.
  - **Trademarks**: These are words, symbols, designs, or combinations thereof used to distinguish your wares or services from someone else's. Trademarks are registered with the Canadian Intellectual Property Office.
  - Integrated circuit topographies: This is a three-dimensional configuration of the electronic circuits used in microchips and semiconductor chips. Integrated circuit topographies can be protected by registration with the Canadian Intellectual Property Office.
  - New plant varieties: Certain plant varieties that are new, different, uniform and stable may be protected by registration with Plant Breeders' Rights Office, Canadian Food Inspection Agency.
  - Know-how: is practical knowledge, technique or expertise. For example, certain information is codified in the patent application but a researcher's know-how could be valuable for commercial optimization of the product. Knowhow can be licensed independently of the terms of a related patent.

3.1

IP protection activities: Materials transfer agreement: A contract Filing patent applications: The formal rebetween laboratories covering the use of • and IP arising from the sharing of biological quest for a patent. (genetic) materials. Prior art searches: Examination of Signing non-disclosure or confidentiality previously published patents. Patent prosecutions: All the steps involved agreement: A contract between parties intended to avoid the disclosure of proprietary in completing a patent application. rights, trade secrets or confidential informa-Patent cooperation treaty applications: tion to a third party. An application under the international treaty providing for standardized filing procedures 3.3b **Patents pending**: A label sometimes affixed to for foreign patents in the countries that have new products informing others that the inventor signed the treaty. has applied for a patent and that legal protection Application for registration of copyrights: from infringement (including retroactive rights) The formal request for a copyright. may be forthcoming. Filing for protection of trademarks: The formal request for registration of a trade-4.1 A Canadian business is any business that is inmark. corporated in a Canadian jurisdiction. A foreign Application for registration of integrated business is any business that is not incorporated circuit topographies: The formal request in a Canadian jurisdiction. "Foreign" includes the for registration of integrated circuit topogra-United States. A multinational business would be phies. classified as Canadian if it has an operation in-Application for plant breeder's rights: The corporated in a Canadian jurisdiction. formal request for registration of plant breeder's rights. Completed by Telephone number Fax. number e-mail address Comments