



# Research and Development in Canadian Industry, 2001

Reporting unit name and address

Si vous préférez ce questionnaire en français, veuillez cocher

Please correct any mistakes in name or address



## INFORMATION FOR RESPONDENTS

### Survey objective

This survey collects data which are essential to assure the availability of pertinent statistical information to monitor science and technology related activities in Canada and to support the development of science and technology policy. Your data will be used, for instance, to plan and evaluate research and development (R&D) incentive programs and to complete national totals for scientific R&D expenditures and personnel. The results of this survey will be published in "Industrial Research and Development (Cat. No. 88-202-XIB) and "Science Statistics" (Cat. 88-001-XIB).

### Authority

This survey is conducted under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19.

### Legal requirement

Organizations are required to provide this information.

### Confidentiality

Statistics Canada is prohibited from publishing any statistics which would divulge information relating to any identifiable organization without the previous written consent of that organization. The data reported on this questionnaire will be treated in strict confidence, used for statistical purposes and published in aggregated form only.

### Federal/Provincial Agreements

In order to avoid duplication of enquiry, to reduce the cost of data collection and to provide consistent statistics, an agreement has been made with the Institut de la statistique du Québec, under Section 11 of the Statistics Act, Statutes of Canada, where data on firms located or having R&D activities in Québec will be transmitted to the Institut de la Statistique du Québec. The Statistics Act of Québec includes the same provisions for confidentiality and penalties for disclosure of information as the Canada Statistics Act.

### Reporting period and coverage

This questionnaire should be completed for the **fiscal year ending in 2001**. This report should exclude foreign operations. Please report all amounts in **Canadian currency**.

Please complete a separate questionnaire for each company performing R&D activities in Canada.

- If your records do not permit separate reporting, ensure that questions 1 to 8 **only include** data on companies performing R&D in Canada.
- If your company performs R&D activities, **all questions should be completed**.
- If your company does not perform but funds R&D, **complete questions 2, 3, 4, 9, 10, 11 and certification**.

## GENERAL CORPORATE DATA (questions 1 to 4)

1. a) If your records do not permit separate reporting, list the name of the other companies performing R&D in Canada for which data will be included in questions 2 to 6 of this questionnaire, and indicate "YES" in column 2; these firms will be considered members of this reporting unit.

b) If this reporting unit includes Canadian R & D activities performed in direct support of other Canadian related firms (i.e. parent, subsidiaries) which themselves do not perform R & D, list these Canadian companies and indicate "NO" in column 2.

Name of companies (please print full legal name and attach additional sheet if necessary)	Performs R&D YES or NO	Indicate type of affiliation with reporting unit (i.e. parent, subsidiary or other)
315		
316		
317		
318		
319		

c) Latest fiscal year for which a claim for Scientific Research and Experimental Development (T661 SRED) was filed with Revenue Canada ..... 533

d) In the fiscal year ending in 2001, did your firm engage in R&D alliances with other firms or organizations? 534 Yes  or No

2. FISCAL YEAR ENDING IN 2001 FROM <sup>531</sup>     TO <sup>532</sup>     **2 0 0 1**

3a) REVENUES IN CANADA of reporting company and Canadian firms listed in questions 1 a) and 1 b). Indicate their approximate sales and other revenues originating from Canadian operations for 2001 ("see Instruction Guide") **193** (thousands of dollars)

b) Please estimate the percentage of your 2001 revenues, reported in question 3a), that was generated by new or substantially improved products/services introduced by your firm during the three-year period 1999-2001 **536** %

4. NUMBER OF EMPLOYEES IN CANADA of reporting company and Canadian firms listed in questions 1 a) and 1b). Indicate their average number of employees on payroll in Canada for 2001. **094** (number)

## CERTIFICATION

Name of person who completed this report (please print) Business address:

Official position: Date: Postal code: Telephone No. Extension

Internet address: GST No. (BN No.) Fax No.

**DATA ON R&D PERFORMED (questions 5 to 8)**

**5. PERSONNEL OF THIS REPORTING UNIT ENGAGED IN R&D (FULL-TIME EQUIVALENT\*) (use rounded numbers only)**

	Professionals								Supporting Staff*		Total R&D personnel
	Scientists and engineers				Senior R&D administrators				Technicians and technologists	Other	
	Bachelors	Masters	Doctors	Total	Bachelors	Masters	Doctors	Total			
a) In 2001	082	083	084		085	086	087		088	089	**
b) Planned for 2002	182	183	184		185	186	187		188	189	

\* See "Instruction Guide"

\*\* Divide wages and salaries for 2001 (Question 6b) by total R&D personnel.  
If the average R&D wages and salaries do not seem reasonable, please review the data . . . .

Average wages and salaries

(thousands of dollars)

**6. EXPENDITURES IN CANADA FOR R&D PERFORMED WITHIN THIS REPORTING UNIT (2001 total R&D expenditures should equal total of question 8) (thousands of dollars)**

	CURRENT EXPENDITURES			CAPITAL EXPENDITURES				Total	
	Wages and salaries*	Other current costs**	Total current	Land	Buildings	Equipment & Other	Total capital		
(\$000)									
a) Made in 2000	001	002		009	010	011			
b) Made in 2001	003	004		012	013	014			
c) Planned for 2002	005	006		015	016	017			
d) Forecast for 2003	007	008		018	019	020			
e) If applicable, please estimate the percentage of total R&D expenditures (reported above for 2001) attributable to software development***								308	%
f) If applicable, please estimate the percentage of total R&D expenditures (reported above for 2001) attributable to biotechnology***								309	%
g) If applicable, please estimate the percentage of total R&D expenditures (reported above for 2001) attributable to prevention, treatment and reuse of pollutants and wastes, and reduction of material and energy use***								314	%
h) Are there important potential environmental benefits related to the R&D reported for 2001 (apart from any R&D reported in question 6g)?***								535	Yes <input type="checkbox"/> or No <input type="checkbox"/>
i) If applicable, please estimate the percentage of total R&D expenditures (reported above for 2001) attributable to advanced materials***								537	%

\* Include fringe benefits of persons engaged in R&D.

\*\* Include contracts for services required to carry out R&D (e.g. contracts awarded for drilling needed for heavy oil R&D). Exclude contracts for R&D work itself which should be reported in questions 9 & 10. **Exclude capital depreciation.**

\*\*\* See "Instruction Guide"

**7. REGIONAL INFORMATION FOR R&D PERFORMED WITHIN THIS REPORTING UNIT IN 2001 (Expenditures should be reported in thousands of dollars)**

Region where R&D was performed	R&D expenditures		R&D personnel	
	Current	Capital	Professionals	Supporting staff
	(\$000)		(Full-time equivalent*)	
1. Newfoundland	109	122	135	148
2. Prince Edward Island	110	123	136	149
3. Nova Scotia	111	124	137	150
4. New Brunswick	112	125	138	151
5. Québec (excluding Montréal area and National Capital Region)	113	126	139	152
6. Montréal metropolitan area	114	127	140	153
7. National Capital Region:* Québec (specify):	310	311	312	313
Ontario (specify):	294	295	296	297
8. Ontario (excluding Toronto area and National Capital Region)	115	128	141	154
9. Toronto, metropolitan area	116	129	142	155
10. Manitoba	117	130	143	156
11. Saskatchewan	118	131	144	157
12. Alberta	119	132	145	158
13. British Columbia	120	133	146	159
14. Yukon, Northwest Territories and Nunavut	121	134	147	160
<b>Total (equal to 2001 expenditures and personnel reported in questions 6b) and 5a))</b>				

\* See "Instruction Guide" for areas covered in the National Capital Region.

**8. SOURCES OF FUNDS FOR R&D PERFORMED WITHIN THIS REPORTING UNIT IN 2001**  
(thousands of dollars)

Canadian sources	Non-Canadian sources
021	022

a) Reporting unit funding (include also funds from companies listed in question 1a)

b) Parent, affiliated and subsidiary companies (only those not included in question 8a).

Name of companies (please print full legal name and attach additional sheet if necessary.)		
325	335	345
326	336	346
327	337	347
328	338	348
329	339	349
<b>Sub-total (b)</b>	<b>023</b>	<b>024</b>

c) Canadian Federal Government:\*

(i) R&D grants and the R&D portion only of any other grants.

<b>Industry Canada:</b> Defence Industry Productivity Program	162	
Technology Partnership Program	164	
<b>National Research Council:</b> Industrial Research Assistance Program	163	
<b>Other grant programs</b> (specify):		
(specify):		
<b>Sub-total (c i)</b>	<b>027</b>	

(ii) R&D contracts and the R&D portion only of any other contracts.

<b>Contracting departments:</b> (Payments are often made through Public Works and Government Services Canada for other departments; please specify contracting department)		
<b>Sub-total (c ii)</b>	<b>026</b>	

d) Provincial government:\*

(specify province and program):		
(specify province and program):		
(specify province and program):		
<b>Sub-total (d)</b>	<b>291</b>	

e) R&D contract work for other companies

Name of companies (please print full legal name and attach additional sheet if necessary.)		
355	365	375
356	366	376
357	367	377
358	368	378
359	369	379
360	370	380
361	371	381
362	372	382
363	373	383
364	374	384
<b>Sub-total (e)</b>	<b>028</b>	<b>029</b>

f) Universities (specify):

385	386
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g) Others (i.e. foreign government) (specify):

387	388
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**Sub-total (f and g)**

<b>030</b>	<b>031</b>
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**Sub-totals (a to g) .....**

**Total (equal to the 2001 grand total expenditures of question 6b)).** ▶ ◀

\*Questions 8c) and 8d) – Do not include any funds or tax credits from tax incentives; these should be considered part of your internal funding reported in question 8a).

**DATA ON PAYMENTS FOR R&D (questions 9 and 10)**

**9. PAYMENTS FOR R&D PERFORMED BY OTHER ORGANIZATIONS\***  
(2001 should equal the total of question 10.) (thousands of dollars)

a) Made in 2000	038
b) <b>Made in 2001</b>	039
c) Planned for 2002	040
d) Forecast for 2003	041

**10. RECIPIENTS OF PAYMENTS\* FOR R&D PERFORMED IN 2001 BY OTHER ORGANIZATIONS**  
(thousands of dollars)

**a) Parent, affiliated and subsidiary companies**

Name of companies <i>(please print full legal name and attach additional sheet if necessary)</i>	In Canada	Outside Canada
390	400	410
391	401	411
392	402	412
393	403	413
394	404	414
395	405	415
396	406	416
397	407	417
398	408	418
399	409	419
<b>Sub-total (a)</b>	<b>042</b>	<b>043</b>

**b) Other companies** *(please print full legal name and attach additional sheet if necessary)*

420	430	440
421	431	441
422	432	442
423	433	443
424	434	444
425	435	445
426	436	446
427	437	447
428	438	448
429	439	449
<b>Sub-total (b)</b>	<b>046</b>	<b>047</b>

**c) Private non-profit organizations** *(please print full legal name and attach additional sheet if necessary)*

450	048	049
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**d) Industrial research institutes or associations**  
*(please print full legal name, for ex.: Pulp and Paper Research Institute)*

451	454	457
452	455	458
453	456	459
<b>Sub-total (d)</b>	<b>050</b>	<b>051</b>

**e) Hospitals** *(please print full name and attach additional sheet if necessary)*

460	470	480
461	471	481
462	472	482
<b>Sub-total (e)</b>	<b>052</b>	<b>053</b>

**f) Universities** *(please print full name and attach additional sheet if necessary)*

490	500	510
491	501	511
492	502	512
<b>Sub-total (f)</b>	<b>055</b>	<b>056</b>

**g) Individuals** *(please print full name and attach additional sheet if necessary)*

	057	058
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**h) Provincial research organizations** *(please print full name and attach additional sheet if necessary)*

520	521	
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**i) Non-University educational institutions** *(please print full name and attach additional sheet if necessary)*

522	523	524
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**j) Governments** *(please print full name and attach additional sheet if necessary)*

525	526	527
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**k) Other** *(please print full name and attach additional sheet if necessary)*

528	529	530
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Total of items 10a) to 10k) .....

Total (equal to 2001 figure entered in question 9b)) .....

\* Payments made outside Canada should be reported net of withholding taxes.

**DATA ON OTHER PAYMENTS MADE OR RECEIVED FOR TECHNOLOGY (question 11)**

A company can acquire information based on R&D performed in the past by other companies, organizations or individuals. Similarly, it can sell information based on R&D it has performed in the past. In the preceding section, payments are reported for the support of R&D whilst this R&D is being done. In this section, consider only payments for information and rights derived from R&D performed in the past.

**11. PAYMENTS MADE OR RECEIVED IN 2001 BY THIS REPORTING UNIT FOR PATENTS (SALE/PURCHASE, LICENSING) KNOW-HOW (UNPATENTED), INVENTIONS, TRADEMARKS (INCLUDING FRANCHISING), PATTERNS, DESIGN, AND R&D TECHNICAL ASSISTANCE\* (thousands of dollars)**

	In Canada	Outside Canada
<b>a) Payments</b>	101	103
to parent, affiliated and/or subsidiary companies		
to other organizations and/or individuals	102	104
<b>Total</b>	<b>062</b>	<b>063</b>
<i>* Payments made outside Canada should be reported net of withholding taxes.</i>		
<b>b) Receipts</b>	105	107
from parent, affiliated and/or subsidiary companies		
from other organizations and/or individuals	106	108
<b>Total</b>	<b>064</b>	<b>065</b>

**DATA ON ENERGY R&D (question 12)**

**12. IN 2001, DID THIS REPORTING UNIT PERFORM OR FUND ANY ENERGY R&D?**

- Yes** ▶ Please complete the enclosed "Energy R&D expenditures by area of technology" (green) questionnaire.
- No** ▶ Please complete certification on page 2 and return questionnaires.

**NATURE OF R&D ACTIVITIES – 2001 (question 13)**

Please complete the following question 13 for each R&D establishment. If you have more than one R&D establishment, please photocopy this section (question 13) and complete for each R&D establishment.

**13. R&D Establishment No.**  (i.e. 1, 2, 3, etc.)

Name of R&D establishment:

Address of R&D establishment:

Street  City

Province  Postal code

Contact:

Name  Position title  Telephone no.

1. What were the current (non-capital) R&D Expenditures of this R&D establishment in 2001? (the total amounts reported for all R&D establishments should equal the total of cells 003 and 004 in question 6)	(thousands of dollars)
2. How many scientists and engineers (full-time equivalent) were employed in this R&D establishment in 2001? (the total amounts reported for all R&D establishments should equal the total of cells 082 to 084 in question 5)	(number)
3. Please estimate, in terms of the percentage of the current R&D expenditures, the approximate distribution of your R&D effort in 2001:	
A. Basic research (no specific practical application in view) _____	%
B. Applied research (with a specific practical application in view) _____	%
C. New * product development _____	%
D. Existing * product improvement _____	%
E. New * process development _____	%
F. Existing * process improvement _____	%
G. New * technical services development _____	%
H. Existing * technical services improvement _____	%
	<b>100%</b>

\* Please consider new to mean totally or essentially new/unknown to the personnel of your R&D establishment. The product, process or service may exist elsewhere in the world but your R&D is not aided by this fact since your personnel do not have access to the information necessary to avoid any of the normal risks of development. Existing would mean that your staff would be improving a product/process/service about which they have the basic information - the product/process/service need not already be provided by your company.

