Integrated Business Statistics Program (IBSP)

# 2014 Annual Survey of Research and Development in Canadian Industry

#### **CONFIDENTIAL** once completed.

Selon nos dossiers votre langue de préférence est l'anglais, si vous préférez recevoir ce document en français, veuillez nous appeler au numéro sans frais suivant : 1-800-972-9692.

Please verify the business or organization name, contact person and address for this questionnaire and correct where needed.

Legal name

Operating name

First name

Last name

Title

Address (number and street)

City

Province, territory or state

Postal code or ZIP code

Klieinaee or	organization and	contact into	rmati	a In
Dusiliess ul	organization and	Contact IIIIC	ITTICITI	<b>911</b>
	•			

The contact person is the person who should receive this questionnaire.

The contact person may not always be the one who actually completes the questionnaire.

Email address (ex. user@example.gov.ca)

Telephone number (including area code)

Extension number

Fax number (including area code

Preferred language of communication

English

French

This information is collected under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S-19.

COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THIS ACT.

### Introduction

### Survey purpose

This survey collects information on scientific activities of Canadian businesses. The research and development expenditures and personnel information is used by federal, provincial and territorial governments and agencies, academics, trade associations and international organizations for statistical analyses and policy purposes. These data also contribute to national totals of research and development activities. The payments and receipts information is used by these agencies to monitor knowledge flows across international borders and between Canadian businesses.

Your information may also be used by Statistics Canada for other statistical and research purposes.

### Security of emails and faxes

Statistics Canada advises you that there could be a risk of disclosure during facsimile or email. However upon receipt, Statistics Canada

will provide the guaranteed level of protection afforded all information collected under the authority of the Statistics Act.

**Note:** Our online questionnaires are secure, there is no risk of data interception when responding to Statistics Canada online surveys.

#### Confidentiality

The Statistics Act protects the confidentiality of information collected by Statistics Canada.

### **Data-sharing agreements**

Country

To reduce respondent burden, Statistics Canada has entered into datasharing agreements with provincial and territorial statistical agencies and other government organizations, which have agreed to keep the data confidential and use them only for statistical purposes.

Information on confidentiality, data-sharing agreements and record linkages can be found on the last page of this questionnaire.

# Please return the questionnaire within 21 days.

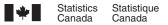
Please mail the completed questionnaire in the enclosed envelope or fax it to Statistics Canada at 1-888-883-7999.

If you are unable to complete within 21 days **OR** if you need help, call us at **1-800-972-9692**.

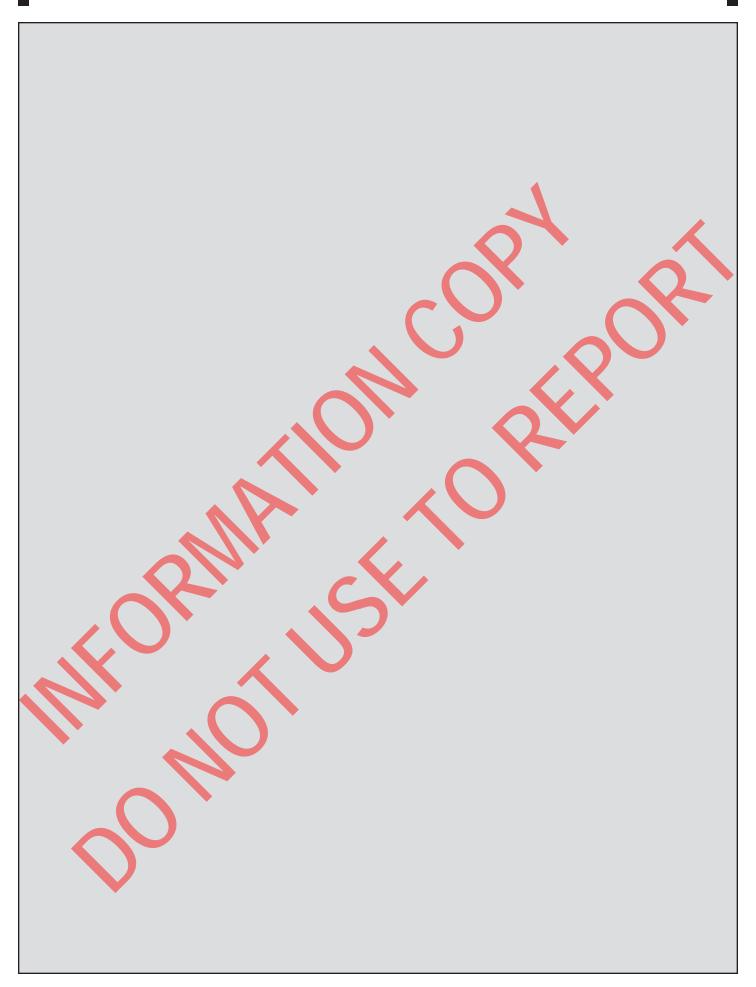
Statistics Canada
Operations and Integration Division
150 Tunney's Pasture Driveway
Ottawa, Ontario K1A 0T6

Visit our website, www.statcan.gc.ca

5-3600-4201.1 RDCI-MAIN: 2015-11-20







Bu	siness or organization status
1.	Is this business or organization currently in operation?
	Yes → Go to next section
	No, seasonal operations → Go to question 2
	No, ceased all operations → Go to question 4
	No, sold all operations → Go to question 6
	No, amalgamated with (an) other business(es) or organization(s) → Go to question 8
	No, temporarily inactive but will re-open → Go to question 11
	No, no longer operating due to other reason(s) → Go to question 14
2.	When did this business or organization close for the season?
	Date YYYY MM DD
3.	When does this business or organization expect to resume operations?
	Date → Go to next section
4.	When did this business or organization cease all operations?
	TYYYY MM DD  Date
5.	Why did this business or organization cease all operations?
	B00311
	Bankruptcy
	Liquidation  Dissolution  → Go to next section
	Other reason — specify:
	B00312

6.	When was this business or organization sold?
	Date  YYYY MM DD  Date
7.	What is the legal name of the buyer?
	Go to next section
8.	When did this business or organization amalgamate?  YYYY MM DD
	Date B00213
9.	What is the legal name of the resulting or continuing business or organization?  B00407
10	What is (are) the legal name(s) of the other amalgamated business(es) or organization(s)?
10.	B00408  Go to next section
11.	When did this business or organization become temporarily inactive?  YYYY  MM  DD  B00214
10	Date  When does this business or organization expect to resume operations?
12.	YYYY MM DD
13.	Date  Why is this business or organization temporarily inactive?
	→ Go to next section
1/	When did this business or organization cease operations?
14.	YYYY MM DD
15.	Date  Why did this business or organization cease operations?
	B00314  → Go to next section

# **Reporting instructions**

- 1. Please print in ink.
- 2. Report all dollar amounts in thousands of Canadian dollars.
- 3. Do not include sales tax.
- 4. Percentages should be rounded to whole numbers.
- 5. Do not report dollars in decimals. Round all values to the nearest whole number.
- 6. Consult the reporting guide at www.statcan.gc.ca/guides-e for further information.
- 7. When precise figures are not available, please provide your best estimates.
- 8. If this business performs in-house R&D and outsources R&D, complete all questions.
- 9. If this business performs in-house R&D and does not outsource R&D, complete questions 1-5, 8-19.
- 10. If this business outsources R&D and does not perform in-house R&D, complete questions 1-3, 5-7, 12, 16-19.
- 11. If this business does not perform in-house R&D and does not outsource R&D, complete questions 1-3, 5, 12, 16-17 and 19.

# **Business characteristics** Reporting period YYYY MM DD B00206 Note: For this survey, this business's fiscal year end date should fall on or before March 31, 2015. Here are some examples of fiscal periods that fall within the targeted dates: May 1, 2013 to April 30, 2014 July 1, 2013 to June 30, 2014 October 1, 2013 to September 30, 2014 January 1, 2014 to December 31, 2014 February 1, 2014 to January 31, 2015 April 1, 2014 to March 31, 2015 \*THIS FISCAL YEAR WILL BE REFERRED TO AS 2014 THROUGHOUT THE QUESTIONNAIRE **Business status** 2. What is this business's GST number (9-digit business number)? Before you begin Differences between Scientific Research and Experimental Development (SR&ED) tax incentive program and this survey **Include** the following expenditures in this survey: capital R&D expenditures R&D expenditures in the social sciences and humanities payments for R&D performed by other organizations outside Canada

### For this survey

'In-house R&D' refers to

Expenditures within Canada for R&D performed within this business by:

- employees (permanent, temporary or casual)
- self-employed individuals or contractors who are working on-site on this business's R&D projects

### 'Outsourced R&D' refers to

Payments made within or outside Canada to other companies, organizations or individuals to fund R&D performance:

- contracts
- grants
- fellowships

ln-	hou	se research and development (R	&D) ex	penditures		
3.	with	2014, 2015 or 2016, did this business have no Canada?		·		ormed in-house
	Exc	Jude: payments for outsourced (contracted out of on Outsourced (contracted out or granted)		d) R&D which should	d be reported in question 6	
	B0513	Yes				
		No → Go to question 5				
4.		2014, 2015 and 2016, what were this busing Canada?	ess's act	tual or planned ex	openditures for <b>R&amp;D perfo</b>	ormed in-house
	Plea	ase report all amounts in thousands of Canadia fort '0' for no R&D expenditures.	n dollars			
			Ма	nde in 2014	Planned in 2015	Planned in 2016
		rrent in-house R&D penditures within Canada	•	CAN\$ '000	CAN\$ '000	CAN\$ '000
	a.	Wages, salaries of permanent, temporary and casual R&D employees <b>Include:</b> fringe benefits	E45077_sr1	,,000		R
	b.	Services to support R&D  Include: services of self-employed individuals or contractors who are working on-site on this business's R&D projects.  Exclude: contracted out or granted expenditures to other organizations to perform R&D (report in question 6)	E45077_sr2	,000	Oby	
	C.	R&D materials	E45077_sr3	,000,		
	d.	All other current R&D costs Include: overhead costs	\$	000		
		Total current in-house R&D expenditures within Canada	S E45050	,000	E45079	E45082 ) S ,000
		pital in-house R&D penditures within Canada	E45078_sr1			
	e.	Software <b>Exclude:</b> capital depreciation	\$	,000,		
	f.	Land Exclude: capital depreciation	E45078_sr2	,000,		
	g.	Buildings and structures  Exclude: capital depreciation	E45078_sr3	,000		
	h.	Equipment, machinery and all other Exclude: capital depreciation	£45078_sr4	,000		
		Total capital in-house R&D expenditures within Canada	<b>E45060</b>	,000	E45081	E45083
			E45070	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,	,500
		otal in-house R&D expenditures	S	.000		

Ou	tsourced (contracted out or granted) R&D expenditures	S				
5.	In 2014, did this business have outsourced (contracted out or granted Include: - contracted out expenditures for R&D - funding or grants provided to other organizations to perform R&D	d) <b>R&amp;</b>	D expenditures?			
	<b>Exclude:</b> - services of self-employed individuals or contractors who are working which should have been reported earlier as part of in-house R&D ex			) pro	ojects,	
	B05152_tp 1 Yes		<b>A</b>			
	<sup>2</sup> No → Go to question 7		H			•
6.	<b>In 2014</b> , what were this business's <b>outsourced</b> (contracted out or grandar)	nted)	R&D expenditures wit	hin	Canada or outside	
	Please report all amounts in <b>thousands of Canadian dollars</b> .  Report '0' for <b>no R&amp;D expenditures</b> .	. (	Within Canada		Outside Canada	
	a. Other companies	\$	CAN\$ '000 E46096_sr1	\$	CAN\$ '000 E43039_sr1	,000,
		Ф	E46096_sr2	d)	E43039_sr2	000
	b. Private non-profit organizations	\$	E46096_sr3	Φ	E43039_sr3	,000
	c. Industrial research institutes or associations	\$	,000 E46096_sr4	\$	E43039_sr4	,000
	d. Hospitals	\$	,000	\$	E43039_sr5	,000,
	e. Universities	\$	,000 E46096_sr6	\$		,000,
	f. Federal government departments and agencies	\$	,000 E46096_sr7			
	g. Provincial government departments, ministries and agencies	\$	,000 E46096_sr8			
	h. Provincial research organizations	\$	,000			
	i. Other: e.g., individuals, non-university educational institutions, foreign government	\$	E46096_sr9	\$	E43039_sr6	.000
			E46210	,	E43030	,000
	2014 - Total outsourced (contracted out or granted) R&D expenditures	\$	,000	\$	,	000
7.	In 2015 or 2016, what are this business's planned outsourced (contra or outside Canada?	cted	out or granted) R&D ex	кре	nditures within Can	ıada
	Report "0" for no R&D expenditures.		Within Canada		Outside Canada	1
	2015 - Total outsourced (contracted out or granted) R&D expenditures	\$	<b>E46097</b>	\$	E43041	000
	2016 - Total outsourced (contracted out or granted)		E46098		E43042	
	R&D expenditures	\$	,000	\$	,	000

# Geographic distribution of in-house R&D expenditures within Canada in 2014

8. **In 2014**, how were this business's total expenditures for **R&D performed in-house** distributed by province or territory?

		should be reported in or granted) R&D - capital depreciation	ced (contracted out or g question 6 on Outsourd	ced (contracted out		Current in-ho R&D expendit			Capital in-ho R&D expendit	
Rep	ort all a	amounts in <b>thousands</b>	of Canadian dollars.		F41	CAN\$ '000	0		CAN\$ '000	0
a.	Newf	foundland and Labra	dor		\$	5077_g1	,000	\$	E45078_g1	,00
b.	Princ	e Edward Island			\$	5077_g2 5077_g3	,000	\$	E45078_g2	,00
Э.	Nova	Scotia			\$	5077_g4	,000	\$		,00
d.	New	Brunswick			\$		,000	\$	E45078_g4	,00
€.	Queb	pec			\$	5077_g5	,000	\$	E45078_g5	,0
	Onta	rio		<b></b>	\$	5077_g6	,000	\$	E45078_g6	,0
g.	Mani	toba			\$	5077_97	,000	\$	E45078_g7	,0
٦.	Sask	atchewan			\$	5077_98	,000	\$	E45078_g8	,0
	Alber	ta			\$	5077_g9	,000	\$	E45078_g9	,0
	Britis	h Columbia			\$	5077_g10	,000	\$	E45078_g10	,0
	Yuko	n			\$	5077_g11	,000	\$	E45078_g11	,0
	North	nwest Territories			\$	5077_g12	,000	\$	E45078_g12	,0
n.	Nuna	avut			\$	5077_g13	,000	\$	E45078_g13	,0
	0044				£4	5100	,000	\$	E45110	
	2014	Total current and	l capital in-house R	ab expenditures		Should equa total current in-house R&I expenditures reported at question 4	l :	9	Should equa total capital in-house R&I expenditures reported at question 4	D s

Sour	ces of funds for in-house R&D expenditures in 2014				
PI <b>In</b>	2014, what were the sources of funds for this business's total expenses report all amounts in thousands of Canadian dollars.  clude: Canadian and foreign sources  clude: - payments for outsourced (contracted out or granted) R&D which sh			in-house?	
	on Outsourced (contracted out or granted) R&D - capital depreciation	0		Famaiana	
		Canada CAN\$ '000		Foreign CAN\$ '000	
a.	Funds from this business Include: interest payments and other incomes, funds or tax credits from tax incentives	E64047 \$	,000,	E63037	900
b.	Funds from parent, affiliated and subsidiary companies	\$	,000	203044	,000
C.	Federal grants Include: R&D grants or R&D portion only of other grants	E64048	,000	N	
d. 	Federal contracts Include: R&D contracts or R&D portion only of other contracts	E65049	,000	50	
R	&D contract work for other companies	Canada		Foreign CAN\$ '000	
e.	GST number (9-digit business number)  B71014_nc1	E65048_nc1	000	E63038_nc1	000
	Legal business name B71014_nc2		,000	Φ	,000
f.	GST number (9-digit business number)	E65048_nc2	,000	E63038_nc2	,000
	Legal business name B71014_nc4				
g.	GST number (9-digit business number)	E65048_nc3		E63038_nc3	
	Legal business name B71014_nc6	\$	,000	\$	,000
h.	GST number (9-digit business number)	E65048_nc4		E63038_nc4	
	Legal business name	\$	,000	\$	,000
i.	Other contracts not listed above	E65048_nc5	,000	E63038_nc5	.000
		Ψ	,000	Ψ	,000

Geographic distribution of Provincial grants / Provincial contracts									
Include: R&D grants or R&D portion only of other grants/contracts		Provincial grants		Provincial contracts					
		CAN\$ '000		CAN\$ '000					
		E64049_g1		E65051_g1:					
j. Newfoundland and Labrador	\$	,000	\$		,000				
		E64049_g2		E65051_g2					
k. Prince Edward Island	\$	.000	\$		,000				
		E64049_g3:		E65051_g3					
I. Nova Scotia	\$	,000	\$		,000				
		E64049 g4		E65051_g4					
m. New Brunswick	\$	,000	\$		,000				
		E64049_g5		E65051_g5					
n. Quebec	\$	,000	\$		,000				
		E64049_g6		E65051_g6					
o. Ontario	\$	,000	\$		,000				
		E64049_g7		E65051_g7					
p. Manitoba	\$	,000	\$		,000				
		E64049_g8:		E65051_g8					
q. Saskatchewan	\$	,000	\$		,000				
		E64049_g9		E65051_g9					
r. Alberta	\$	,000	\$		,000				
		E64049_g10		E65051_g10					
s. British Columbia	\$	,000	\$		,000				
		E64049_g11		E65051_g11					
t. Yukon	\$	,000	\$		,000				
		E64049_g12		E65051_g12					
u. Northwest Territories	\$	,000	\$		,000				
		E64049_g13		E65051_g13					
v. Nunavut	\$	,000	\$		,000				

		C	AN\$ '000	CAN\$ '000	)
	GST number (9-digit business number)	E65052_nc1		E63039_nc1	
		\$	,000	\$	,000
	Legal business name				
	B/1013_nc2		•		
k.	GST number (9-digit business number)	E65052_nc2	24	E63039_nc2	<u> </u>
	Legal business name B71013_nc4	\$	,000	\$	,00,
				$\mathcal{O}$	
l.	GST number (9-digit business number)  B71013_nc5	E65052_nc3	000	\$ E63039_nc3	,00,
	Legal business name B71013_nc6	Ψ I	2		,00
m	Other sources	E64051		 E63041	
	e.g., Universities, foreign governments, individuals	\$ E60310	,000	\$ E60320	,00
01	14 — Total in-house R&D expenditures by sources of funds by origin		,000	\$	,00
				E60330	
201	14 — Total in-house R&D expenditures (Canadian and forei (should equal total in-house R&D expenditures reported at or a specific property of the control	gn sources)  uestion 4)		\$	,00
201	14 — Total in-house R&D expenditures (Canadian and foreing (should equal total in-house R&D expenditures reported at continuous continuous).	gn sources) juestion 4)		\$	,(
•	<b>6</b>				
	<b>-</b>				

## In-house R&D expenditures by fields of research and development in 2014

10. **In 2014,** how were this business's **total expenditures for R&D performed in-house** within Canada distributed by fields of research and development?

**Exclude:** - payments for outsourced (contracted out or granted) R&D which should be reported in question 6 on Outsourced (contracted out or granted) R&D

capital depreciation

Report all amounts in thousands of Canadian dollars.

		tural and formal sciences	<b>CAN\$ '000</b> E45092_y1	
á	а.	Mathematics.	E45092_y2	,000
k	٥.	Physical sciences \$	E45092_y3	,000
(	С.	Chemical sciences\$	E45092_y4	,000
(	d.	Earth and related environmental sciences	E45092_y5	,000
6	Э.	Biological sciences.	E45092_y6	,000
f	·.	Other natural sciences		,000
		Total natural and formal sciences	E45085	,000
	Fnc	gineering and technology		,000
		ude: software engineering and technology (to be reported at line r)	<b>CAN\$ '000</b> E45093_y1	
ę	g.	Civil engineering.	E45093_y2	,000
ł	٦.	Electrical engineering, electronic engineering and communications technology	E45093_y3	,000
i		Mechanical engineering	E45093_y4	,000
i		Chemical engineering		,000
	(.	Materials engineering	E45093_y5	,000
		Medical engineering	E45093_y6	,000
7			E45093_y7	
r	n.	Environmental engineering	E45093_y8	,000
r	٦.	Environmental biotechnology\$	E45093_y9	,000
(	ο.	Industrial biotechnology\$	E45093_y10	,000
ŗ	٥.	Nanotechnology	E45093_y11	,000
(	q.	Other engineering and technologies		,000
		Φ	E45086	000
		Total engineering and technology		,000

Sof	tware-related sciences and technology	CAN\$ '000 E45094_y1	
r.	Software engineering and technology	\$ E45094_y2	,000
S.	Computer sciences	\$ E45094_y3	,000
t.	Information technology and bioinformatics	\$	,000
	Total software-related sciences and technology	\$ E45087	,000
Ме	dical and health sciences	E45084 y1	,,,,,,,
u.	Basic medicine.	\$ E45084_y2	,000
٧.	Clinical medicine	\$ E45084_y3	,000
w.	Health sciences	\$ E45084 y4	,000
х.	Medical biotechnology	\$ E45084_y5	,000
у.	Other medical sciences	\$	,000
	Total medical and health sciences expenditures	\$ E45120	,000
Agı	ricultural sciences	E45095_y1	,
Z.	Agriculture, forestry and fisheries sciences	\$ E45095_y2	,000
aa.	Animal and dairy sciences	\$ E45095_y3	,000
ab.	Veterinary sciences	\$ E45095_y4	,000
ac.	Agricultural biotechnology	\$ E45095_y5	,000
ad.	Other agricultural sciences.	\$ E45088	,000
	Total agricultural sciences	\$ £45000	,000
Soc	cial sciences and humanities	E45096_y1	
ae.	Psychology	\$ E45096 y2	,000
af.	Educational sciences	\$ E45096_y3	,000
ag.	Economics and business	\$ E45096_y4	,000
ah.	Other social sciences	\$ E45096_y5	,000
ai.	Humanities	\$ E45089	,000
	Total social sciences and humanities	\$ 	,000
20	14 — Total in-house R&D expenditures within Canada by field of research and development	E45130	
20	(should equal total in-house R&D expenditures reported at question 4)	\$	,000

ln-h	ou	se R&D expenditures by nature of R&D activity in 2014		
		2014, how were this business's total expenditures for R&D performed in-house nin Canada distributed by nature of R&D?	Percentage	,
	a.	Basic research	E45091_y2	%
	b.	Applied research	E45091_y3	%
	c.	Experimental development	E45140	%
		Total percentage	1 0 0	%
Res	ult	ts of R&D expenditures from 2012 to 2014		
	per	ring the three (3) years 2012, 2013 and 2014, did this business's total expenditures for R&D formed in-house and outsourced (contracted out or granted) within Canada or outside Canada d to new or significant improvements to the following?		
	a.	Goods	Yes	<b>No</b> 2
	b.	Services	B10034 1	2
	c.	Methods of manufacturing or producing goods and services	B10035 1	2
	d.	Logistics, delivery or distribution methods for this business's inputs, goods or services	B10036 1	2
	e.	Supporting activities for this business's processes, such as maintenance systems or operations for purchasing, accounting or computing.	B10037 1	2

ln-	hou	use R&D personnel in 2014	
13.	Plea	2014, how many in-house R&D personnel within Canada did this business have in the following fase report in full-time equivalents (FTEs).  Iude: on-site consultants and contractors in line e.	R&D occupations?
	Re	searchers and research managers	Number of full-time equivalent
	a.	Scientists, social scientists, engineers and researchers Include: software developers and programmers	B20045_y1
	b.	Senior research managers	B20045_y2  B20045_y3
		Total researchers and research managers	
	R8	D technical, administrative and support staff	
	C.	Technicians, technologists and research assistants Include: software technicians	B20045_y4  B20045_y5
	d.	Other R&D technical, administrative and support staff	● B20045_y6
		Total R&D technical, administrative and support staff	
		her R&D occupations	B20045_y7
	e.	On-site R&D consultants and contractors	B20040
		Total in-house R&D personnel in Canada (sum of a. to e.)	
			Percentage B20046
14.	sof	this business's total in-house R&D personnel reported above, what percentage performed tware-related activities?	%
4			

15. In 2014, how were the total in-house R&D personnel distributed by province or territory? Please report in full time equivalents (FTEs). Number of Number of R&D technical, Number of on-site researchers and administrative and **R&D** consultants research managers support staff and contractors B20048\_g1 B20047\_g1 B20049\_g1 Newfoundland and Labrador . . . . . . B20047\_g2 B20048\_g2 B20049\_g2 Prince Edward Island ..... B20047\_g3 B20048\_g3 B20049\_g3 Nova Scotia ..... B20047\_g4 B20048\_g4 New Brunswick ..... B20047\_g5 B20049\_g5 B20047\_g6 B20049\_g6 B20048\_g7 B20049\_g7 B20047\_g Manitoba ..... B20047\_g8 B20048\_g8 B20049 q8 Saskatchewan ... 20048\_g9 B20049\_g9 Alberta B20047\_g10 B20049\_g10 B20048\_g10 British Columbia B20047\_g11 B20048\_g11 B20049\_g11 Yukon B20047\_g12 B20048\_g12 B20049\_g12 Northwest Territories B20047\_g13 B20048\_g13 B20049\_g13 Nunavut B20050 B20060 B20070 Total in-house R&D personnel within Canada **Should match Should match Should match** total researchers total R&D technical, total on-site and managers administrative consultants from question 13 and support staff and contractors from question 13 from question 13

Rep	port all amounts in <b>thousands of Canadian dollars.</b>		nts made Canada	Payment outside	
Pay	yments to parent, affiliated or subsidiary companies	<b>CAN</b> : E46099_pc1	\$ '000	<b>CAN\$</b> E43043_pc1	'000
a.	Patents	\$ E46099_pc2	,000	\$ E43043_pc2	,00
b.	Copyrights	\$ E46099_pc3	,000	\$ E43043_pc3	,00
c.	Trademarks	\$ E46099_pc4	,000	\$ E43043_pc4	,00,
d.	Industrial designs	\$ E46099_pc5	,000	\$ E43043_pc5	,0,
e.	Integrated circuit topography	\$ E46099_pc6	,000	\$ E43043_pc6	,0
f.	Original software	£46099_pc7	,000	\$ E43043_pc7	,0,
g.	Packaged or off-the-shelf software	\$ E46099_pc8	,000	\$ E43043_pc8	,0
h.	Databases (useful life exceeding one year) Other	\$ E46099_pc9	,000	£43043_pc9	,0
	Include: technical assistance, industrial processes and know-how	\$ E46220	,000	\$ E43040	,0
	Total payments made to parent, affiliated or subsidiary companies (sum of questions a. to i.)	\$	,000	\$	,C
	yments to other companies, organizations				
	individuals	E46101_pc1	.000	E43044_pc1	.0
j <b>.</b>	Patents	E46101_pc2	,000	E43044_pc2	,0
۲.	Copyrights	\$ E46101_pc3	,000	\$ E43044_pc3	,C
	Trademarks	\$ E46101_pc4	,000	\$ E43044_pc4	,C
n.	Industrial designs	\$ E46101_pc5	,000	\$ E43044_pc5	,С
1.	Integrated circuit topography	\$ E46101_pc6	,000	\$ E43044_pc6	,C
).	Original software	\$ E46101_pc7	,000	\$ E43044_pc7	,0
ο.	Packaged or off-the-shelf software	\$ E46101_pc8	,000	\$ E43044_pc8	,0
٦.	Databases (useful life exceeding one year)	\$	,000	\$	,0
	Other	E46101_pc9		E43044_pc9	
	Include: technical assistance, industrial processes and know-how	\$	,000	\$	,C
		E46230		E43050	
	Total payments made to other companies, organizations or individuals (sum of questions j. to r.)	\$	,000	\$	,0
	Total payments made to other organizations	E46260		E43060	

кер	ort all amounts in thousands of Canadian dollars.		Payments received within Canada		Payments recei	
	ments received from parent, affiliated or		CAN\$ '000		CAN\$ '000	
sub	sidiary companies		6102_pc1	Φ.	E63042_pc1	
а.	Patents	\$ E4	,000 6102_pc2	\$	E63042_pc2	,0
).	Copyrights	\$	,000	\$		,0
	,,,,	E4	6102_pc3		E63042_pc3	
Э.	Trademarks	\$ E4	000 6102_pc4	\$	E63042_pc4	,(
d.	Industrial designs	\$	,000	\$		
	Integrated circuit topography	\$	6102_pc5	\$	E63042_pc5	).
<del>)</del> .	Integrated circuit topography		6102_pc6	Ψ	E63042_pc6	,,
	Original software	\$ E4	,000 6102_pc7	\$	E63042_pc7	,(
J.	Packaged or off-the-shelf software	\$	,000	\$		,(
١.	Databases (useful life exceeding one year)	\$	6102_pc8	\$	E63042_pc8	.(
	Other	E4	6102_pc9		E63042_pc9	, -
	Include: technical assistance, industrial processes and know-how	\$	,000	\$		,(
	Total payments received from parent, affiliated	E4	16240		E63030	
	or subsidiary companies (sum of questions a. to i.)	\$	,000	\$		,(
Day	ments from other comp <mark>anie</mark> s, organizations					
	ndividuals	E4	6103_pc1		E63043_pc1	
	Patents	\$	,000	\$		,(
		E41	6103_pc2	Φ.	E63043_pc2	
ί.	Copyrights	S E4	,000 6103_pc3	\$	E63043_pc3	,(
	Trademarks	\$	,000	\$		,(
,		E4	6103_pc4		E63043_pc4	
n.	Industrial designs	\$	000 \$ 6103_pc5	\$	E63043_pc5	,(
	Interviewed discoult to programmy	\$	,000	\$	200010_000	,(
	Integrated circuit topography		,UUU 6103_pc6	φ	E63043_pc6	, (
	Original software	\$	,000	\$		,(
		E4	6103_pc7		E63043_pc7	
).	Packaged or off-the-shelf software	\$	,000	\$	EC2042 po9	,(
			6103_pc8	Φ	E63043_pc8	
-	Databases (useful life exceeding one year)	\$	,000	\$		,(
•	Other Include: technical assistance, industrial processes		6103_pc9		E63043_pc9	
	and know-how	\$	,000	\$		,(
	Total payments received from other companies,	E4	16250		E63040	
	organizations or individuals (sum of questions j. to r.)	\$	,000	\$		,(
	Total payments received from other organizations	E4	16270		E63050	
	for technology and technical assistance					

### **ENERGY-RELATED R&D BY AREA OF TECHNOLOGY**

- 18. In 2014, did this business's total in-house and outsourced (contracted out or granted) R&D expenditures include energy-related R&D in the following categories?
  - 1. Fossil fuels

5. Hydrogen and fuel cells

2. Renewable energy resources

- 6. Energy efficiency
- 3. Nuclear fission and fusion
- 7. Other energy-related technologies

- 4. Electric power
  - Yes → Please provide details below
- No → Go to question 19

	20	14 in-hous	se energy-r (by this rep	elated R&D e porting unit)	xpenditu	res
Energy-related R&D by area of technology (consult the reporting guide at www.statcan.gc.ca/guides-e for further information and definitions)	A Funds from this	business	Funds from provincial g	m federal or overnment(s)	All oth	C er Canadian es of funds
1. Fossil fuels			<u> </u>	, , ,		
a) Crude oils and natural gas exploration	E64052_e1_y1	,000	E64053_e1_y1	,000	E64054_e1_y1	,000
b) Crude oils and natural gas production and storage Include: enhanced recovery natural gas production	E64052_e1_y2	,000	E64053_e1_y2	,000	E64054_e1_y2	,000
c) Oil sands and heavy crude oil surface and sub-surface production and separation of bitumen, tailings management	E64052_e1_y3	000	<b>E64053</b> _e1_y3	,000	E64054_e1_y3	,000
d) Refining, processing and upgrading of fossil fuels	E64052_e1_y4	,000	£64053_e1_y4 \$	,000	E64054_e1_y4	,000
e) Coal production, separation and processing	E64052_e1_y5	,000	E64053_e1_y5	,000	E64054_e1_y5	,000
f) Transportation of fossil fuels	E64052_e1_y6	,000	E64053_e1_y6 \$	,000	E64054_e1_y6	,000
2. Renewable energy resources						
a) Solar photovoltaics (PV)	£64052_e2_y1	,000	E64053_e2_y1	,000	E64054_e2_y1	,000
b) Solar thermal-power and high-temperature applications	<b>E6</b> 4052_ <b>e2</b> _y2	,000	E64053_e2_y2	,000	E64053_e2_y2	,000
c) Solar heating and cooling	E64052_e2_y3	,000	E64053_e2_y3	,000	E64053_e2_y3	,000
d) Wind energy	\$ E64052_e2_y5	,000	E64053_e2_y4 \$ E64053_e2_y5	,000	\$ E64053_e2_y5	,000
e) Bio-energy – biomass production and transport	\$ E64052_e2_y6	,000	\$ E64053_e2_y6	,000	\$ E64053_e2_y6	,000
f) Bio-energy – biomass conversion to transportation fuel	\$ E64052_e2_y7	,000		,000	_	,000
g) Bio-energy – biomass conversion to heat and electricity	\$ E64052 e2 y8	,000	\$ E64053_e2_y8	,000	\$ E64053_e2_y8	,000
h) Other bio-energy	\$ E64052_e2_y9	,000	\$ E64053_e2_y9	,000	\$ E64053_e2_y9	,000
i) Small-Hydro (less than or equal to 10 MW)	\$ E64052_e2_y10	,000	\$ E64053_e2_y10	,000	\$ E64053_e2_y10	,000
j) Large-Hydro (greater than 10 MW)	\$	,000	\$	,000	\$	,000
k) Other renewable energy Include: ocean and geothermal	E64052_e2_y11	,000	E64053_e2_y11 \$	,000	E64053_e2_y11	,000

							1		•
		ergy-related this reporting		2014 ou	tsourced (co	ontracted ou	t or granted	d) R&D expe	nditures
All foreign so		Total in- (= A+B+		Outso (contract	eurced ted out or in Canada	Outson (contracte granted) outs	urced ed out or		tsourced E+F)
	CAN	\$ '000				CAN\$	000'		
1. Fossil fuels									
E63045_e1_y1	,000	E45097_e1_y1	,000	E46104_e1_y1	,000	E43045_e1_y1	,000	E40430_e1_y1	,000,
E63045_e1_y2	,	E45097_e1_y2	,,,,,	E46104_e1_y2	,,,,,	E43045_e1_y2		E40430_e1_y2	,,,,,
\$	,000	\$	000	\$	,000	\$	,000	\$	,000
E63045_e1_y3		E45097_e1_y3		E46104_e1_y3		E43045_e1_y3		E40430_e1_y3	
\$	,000	\$	,000	\$	000	\$	,000	\$	,000
E63045_e1_y4	000	E45097_e1_y4	000	E46104_e1_y4	000	E43045_e1_y4	000	E40430_e1_y4	000
\$ E63045_e1_y5	,000	\$ E45097_e1_y5	,000	\$ E46104_e1_y5	,000	\$ E43045_e1_y5	,000	\$ E40430_e1_y5	,000
\$	,000	\$	,000	\$	,000	\$	,000		,000
E63045_e1_y6	,000	E45097_e1_y6	,000	E46104_e1_y6	,000	E43045_e1_y6	,000,	E40430_e1_y6	,000
2. Renewable e		ources	,				,		,
E63045_e2_y1		E45097_e2_y1		E46104_e2_y1		E43045_e2_y1		E40430_e2_y1	
\$ E63045_e2_y2	,600	\$ E45097_e2_y2	,000	\$ E46104_e2_y2	,000	\$ E43045_e2_y2	,000	\$ E40430_e2_y2	,000
\$	,000		,000	\$	,000	\$	,000	\$	,000
E63045_e2_y3	,000	E45097_e2_y3	,000	E46104_e2_y3	,000	E43045_e2_y3	,000,	E40430_e2_y3	,000
E63045_e2_y4	<u> </u>	E45097_e2_y4		E46104_e2_y4	<u> </u>	E43045_e2_y4		E40430_e2_y4	
E63045_e2_y5	,000	\$ E45097_e2_y5	,000	\$ E46104_e2_y5	,000	\$ E43045_e2_y5	,000	\$ E40430_e2_y5	,000
\$	,000		,000	\$	,000		,000		,000
E63045_e2_y6	,000	E45097_e2_y6	,000	E46104_e2_y6	,000	E43045_e2_y6	,000,	E40430_e2_y6	,000
E63045_e2_y7	,000	E45097_e2_y7		E46104_e2_y7		E43045_e2_y7	,000	E40430_e2_y7	
\$	,000		,000	\$	,000		,000		,000
E63045_e2_y8	,000	E45097_e2_y8	,000	E46104_e2_y8	,000	E43045_e2_y8	,000	E40430_e2_y8	,000
E63045_e2_y9	,000	E45097_e2_y9	000	E46104_e2_y9	000	E43045_e2_y9	000	E40430_e2_y9	000
\$ E63045_e2_y10	,000	\$ E45097_e2_y10	,000	\$ E46104_e2_y10	,000	\$ E43045_e2_y10	,000	\$ E40430_e2_y10	,000
\$	,000		,000	\$	,000	\$	,000		,000
E63045_e2_y11	,000	E45097_e2_y11 <b>\$</b>	,000	E46104_e2_y11	,000	E43045_e2_y11	,000,	E40430_e2_y11	,000
Ψ	,000	Ψ	,000	Ψ	,000	Ψ	,000	Ψ	,000

	:	2014 in-hous		elated R&D e porting unit)	xpenditu	res
Energy-related R&D by area of technology (consult the reporting guide at www.statcan.gc.ca/guides-e for further information and definitions)	Funds from t		provincial o	B m federal or government(s)		C her Canadian ces of funds
3. Nuclear fission and fusion			CAN	I\$ '000		
a) Nuclear materials exploration, mining and	E64052_e3_y1		E64053_e3_y1		E64054_e3_y1	
preparation, tailings management	\$	,000	\$	,000	\$	,000
b) Nuclear reactors	E64052_e3_y2	,000	E64053_e3_y2	,000	E64054_e3_y2	,000
c) Other fission	E64052_e3_y3	,000,	E64058_e3_y3	,000	E64054_e3_y3	,000
d) Fusion	E64052_e3_y4	.000	E64053_e3_y4	.000	E64054_e3_y4	,000
4. Electric power	<u> </u>	,,,,		,,,,,		,,,,,,
a) Electric power generation in utility sector	E64052_e4_y1	.000	E64053_e4_y1	.000	E64054_e4_y1	,000,
b) Electric power - combine heat and power in industry, buildings	E64052_e4_y2	,000	E64053_e4_y2	,000	E64054_e4_y2	,000
c) Electricity transmission, distribution and storage	E64052_e4_y3	,000	E64053_e4_y3	,000	E64054_e4_y3	,000
5. Hydrogen and fuel cells	***	,000	Ψ	,000	Ψ	,000
A) Hydrogen production for process applications	E64052_e5_y1	,000	E64053_e5_y1	.000	E64054_e5_y1	,000
b) Hydrogen production for transportation applications	E64052_e5_y2	,000	E64053_e5_y2	.000	E64054_e5_y2	,000
c) Hydrogen transport and storage	E64052_e5_y3	,000	E64053_e5_y3	,000	E64054_e5_y3	,000
d) Other hydrogen	E64052_e5_y4	, ,	E64053_e5_y4	,	E64054_e5_y4	,
	\$ E64052_e5_y5	,000	\$ E64053_e5_y5	,000	\$ E64054_e5_y5	,000
e) Stationary fuel cells	\$ E64052_e5_y6	,000	\$ E64053_e5_y6	,000	\$ E64054_e5_y6	,000
f) Mobile fuel <mark>c</mark> ells	\$	,000	\$	,000	\$	,000
6. Energy efficiency						
a) Energy efficiency applications for industry	E64052_e6_y1	,000	E64053_e6_y1	,000	E64054_e6_y1	,000
b) Energy efficiency for residential, institutional and commercial sectors	E64052_e6_y2	,	E64053_e6_y2	,	E64054_e6_y2	
c) Energy efficiency for transportation	\$ E64052_e6_y3	,000	E64053_e6_y3	,000	Ф E64054_e6_y3	,000
	\$ E64052_e6_y4	,000	\$ E64053_e6_y4	,000	\$ E64054_e6_y4	,000
d) Other energy efficiency	\$	,000	\$	,000	\$	,000
7. Other energy-related technologies	EC4050 e7 ::1		F040F2 =7 :-1		F04054 - 7 - 14	
a) Carbon capture, transport and storage related to fossil fuel production and processing	E64052_e7_y1	,000	E64053_e7_y1	,000	E64054_e7_y1	,000
b) Carbon capture, transport and storage related to electric power production	E64052_e7_y2	,000	E64053_e7_y2	,000	E64054_e7_y2	,000
c) Carbon capture, transport and storage related to industry in end use sector	E64052_e7_y3	,000	E64053_e7_y3	,000	E64054_e7_y3	,000
d) Energy system analysis	E64052_e7_y4	,000	E64053_e7_y4	,000	E64054_e7_y4	,000,
e) All other energy-related technologies	E64052_e7_y5	,	E64053_e7_y5		E64054_e7_y5	· · · · · · · · · · · · · · · · · · ·
o, 7 in other chargy related teermologies	\$	,000	\$	,000	\$	,000

2014 in expendi	-house end tures (by t	ergy-related his reporting	R&D unit)	2014 outs	sourced (co	ontracted	out or granted	l) R&D expe	enditures
D All foreign so of fund		Total in- (= A+B+		Outsour (contracted granted) in	d out or	(contra	F sourced cted out or utside Canada		utsourced E+F)
	CAN\$	000'				CA	N\$ '000		
3. Nuclear fiss	ion and fus	ion							
E63045_e3_y1	000	E45097_e3_y1	000	E46104_e3_y1	000	E43045_e3_y1	000	E40430_e3_y1	000
\$ E63045_e3_y2	,000	\$ E45097_e3_y2	,000	\$ E46104_e3_y2	,000	\$ E43045_e3_y2	,000	\$ E40430_e3_y2	,000
\$	,000	\$	,000	\$	,000	£43043_63_y2	.000	\$	,000
E63045_e3_y3		E45097_e3_y3		E46104_e3_y3	<u> </u>	E43045_e3_y3		E40430_e3_y3	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e3_y4	000	E45097_e3_y4	000	E46104_e3_y4	000	E43045_e3_y4	000	E40430_e3_y4	000
\$	,000	\$	,000	\$	,000	<b>D</b>	,000	\$	,000
4. Electric pow	ver								
E63045_e4_y1	,000	E45097_e4_y1	.000	E46104_e4_y1	.000	£43045_e4_y1	,000	E40430_e4_y1	,000
E63045_e4_y2	,000	E45097_e4_y2	,000	E46104_e4_y2	,000	E43045_e4_y2	,000	E40430_e4_y2	,000
\$	,000	\$	,000,	\$	,000	\$	,000	\$	,000
E63045_e4_y3		E45097_e4_y3		E46104_e4_y3		E43045_e4_y3		E40430_e4_y3	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
5. Hydrogen ar	nd fuel cells	<b>;</b>							
E63045_e5_y1		E45097_e5_y1		E46104_e5_y1		E43045_e5_y1		E40430_e5_y1	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e5_y2	,000	E45097_e5_y2	,000	E46104_e5_y2	,000	E43045_e5_y2	,000	E40430_e5_y2	.000
E63045_e5_y3	,,,,,	E45097_e5_y3	,,,,,	E46104_e5_y3	,,000	E43045_e5_y3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	E40430_e5_y3	,,,,,
\$	,000	\$	,000	\$	,000,	\$	,000	\$	,000
E63045_e5_y4		E45097_e5_y4		E46104_e5_y4		E43045_e5_y4		E40430_e5_y4	
\$ E63045 e5 y5	,000	\$ E45097_e5_y5	,000	\$ E46104_e5_y5	,000	\$ E43045_e5_y5	,000	\$ E40430_e5_y5	,000
\$	,000	£45097_65_y5	,000	\$	,000	\$	,000	\$	,000
E63045_e5_y6	,550	E45097_e5_y6	,,,,,	E46104_e5_y6	1	E43045_e5_y6	,,,,,,	E40430_e5_y6	,,,,,,
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
6. Energy effic	eiency								
E63045_e6_y1		E45097_e6_y1		E46104_e6_y1		E43045_e6_y1		E40430_e6_y1	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
£63045_e6_y2	000	E45097_e6_y2	000	E46104_e6_y2	000	E43045_e6_y2	000	E40430_e6_y2	000
\$ E63045_e6_y3	,000	\$ E45097_e6_y3	,000	\$ E46104_e6_y3	,000	\$ E43045_e6_y3	,000	\$ E40430_e6_y3	,000
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e6_y4		E45097_e6_y4		E46104_e6_y4		E43045_e6_y4		E40430_e6_y4	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
7. Other energ	y-related te	chnologies							
E63045_e7_y1		E45097_e7_y1		E46104_e7_y1		E43045_e7_y1		E40430_e7_y1	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e7_y2	.000	E45097_e7_y2 \$	,000	E46104_e7_y2	,000	E43045_e7_y2	,000	E40430_e7_y2	,000
Φ E63045_e7_y3	,000	Ф E45097_e7_y3	,000	E46104_e7_y3	,000	Ф E43045_e7_y3	,000	Φ E40430_e7_y3	,000
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e7_y4		E45097_e7_y4		E46104_e7_y4		E43045_e7_y4		E40430_e7_y4	
\$	,000	\$	,000	\$	,000	\$	,000	\$	,000
E63045_e7_y5	,000	E45097_e7_y5 \$	,000	E46104_e7_y5	,000	E43045_e7_y5	,000	E40430_e7_y5	,000
\$	,000	Φ	,000	Φ	,000	ф	,000	φ	,000

Reporting changes and events that affected R&D expenditures
19. Indicate any reason(s) that may have affected the reported values for this business or organization compared to the last reporting period. Select all that apply.
Outsourcing of R&D project(s)
Initiation of new R&D project(s)
Completion of existing R&D project(s)  B00316_r4
Major change in funding of R&D project(s) (loss of funding)
Major change in funding of R&D project(s) (increase in funding)
Organizational change that affected R&D activities (expansion, reduction, restructuring)
Economic change that affected R&D activities  B00316_r11  Lack of availability of qualified R&D personnel
B00316_r8  Other reason — specify:
No changes or events  No changes or events

Contact person
Statistics Canada may need to contact the person who completed this questionnaire for further information. Who is the best person to contact about this questionnaire?
If the contact person is the same as on cover page, please check → Go to "Feedback"
Otherwise, please provide the contact person information below.
Name of person to contact about this questionnaire:
First name
Last name
Title
Email address (ex. user@example.gov.ca)
Telephone number (including area code) Extension number Fax number (including area code)
Foodback
Feedback
Hours Minutes  1. How long did it take to complete this questionnaire?  Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
Hours Minutes  1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information  2. Statistics Canada reviews all feedback.
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information
1. How long did it take to complete this questionnaire? Include: time spent gathering the necessary information

### **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*. Statistics Canada will use the information from this survey for statistical purposes.

### **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 have agreed to 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.

### Provincial and territorial statistical agencies

**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 provincial and territorial statistical agencies of Newfoundland and Labrador, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and the Yukon. The shared data will be limited to information on in-house research and development expenditures (Question 8) and in-house research and development personnel (Question 15) 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 this survey, there are **Section 12** agreements with the statistical agencies of Prince Edward Island, the Northwest Territories and Nunavut. The shared data will be limited to information on in-house research and development expenditures (Question 8) and in-house research and development personnel (Question 15) pertaining to business establishments located within the jurisdiction of the respective province or territory.

### Natural Resources Canada

For respondents with expenditures on energy-related research and development in technology (fossil fuels, renewable energy resources, nuclear fission and fusion, electric power, hydrogen and fuel cells, energy efficiency, other energy-related technologies), Statistics Canada will also share survey data with the Office of Energy Research and Development (OERD) of Natural Resources Canada. The shared data will be limited to information on Energy Research and Development Expenditures by Area of Technology (Question 18).

You may refuse to share your information with this organization by writing a letter of objection to the Chief Statistician and returning it with the completed questionnaire.

### **Record linkages**

To enhance the data from this survey and to minimize the reporting burden, 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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