

## 2024 Annual Survey of Research and Development in Canadian Industry

**CONFIDENTIAL once completed.**

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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

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.

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

**Please return the questionnaire within 30 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 30 days **OR** if you need help,  
call us at **1-877-949-9492** or **TTY 1-800-363-7629**.

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

**Visit our website, [www.statcan.gc.ca](http://www.statcan.gc.ca)**

## Reporting instructions

- Please print in ink.
- Report dollar amounts **in thousands of Canadian dollars**.
- **Exclude** sales tax.
- Percentages should be rounded to whole numbers.
- Do not report dollars in decimals. Round all values to the nearest whole number.
- When precise figures are not available, provide your best estimates.
- If this business **performs in-house R&D** and **outsources R&D**, complete **all** questions.
- If this business **performs in-house R&D** and **does not outsource R&D**, complete questions 1-5, 8-21.
- If this business **outsources R&D** and **does not perform in-house R&D**, complete questions 1-3, 5-7, 12 & 16-21.
- If this business **does not perform in-house R&D** and **does not outsource R&D**, complete questions 1-3, 5, 12, 16, 17 & 19-21
- Consult the reporting guide at [www.statcan.gc.ca/guides-e](http://www.statcan.gc.ca/guides-e) for further information.

## Business or organization and contact information

1. **Verify or provide** the business or organization's **legal and operating name**, and correct information if needed.

**Note:** Legal name modifications should only be done to correct a spelling error or typo.

Legal name

Operating name (if applicable)

2. **Verify or provide the contact information** for the designated **contact person** for the business or organization, and correct information if needed.

**Note:** The designated contact person is the person who should receive this questionnaire. The designated contact person may not always be the one who actually completes the questionnaire.

First name

Last name

Title

Preferred language of communication

☐

English

☐

French

Mailing address (number and street)

City

Province, territory or state

Postal code or ZIP code

Example: A9A 9A9 or 12345-1234

Country

Email address

Example: user@example.gov.ca

Telephone number (including area code)

Example: 123-123-1234

Extension number  
(if applicable)

Fax number (including area code)

Example: 123-123-1234

3. **Verify or provide the current operational status** of the business or organization identified by the legal and operating name above.

B00323

1 ☐ Operational → **Go to question 4**

2 ☐ Not currently operational

e.g., temporarily or permanently closed, change of ownership

Why is this business or organization not currently operational?

B00309

2 ☐ Seasonal operations → **Go to question 3a**

3 ☐ Ceased operations → **Go to question 3b**

4 ☐ Sold operations → **Go to question 3c**

5 ☐ Amalgamated with other businesses or organizations → **Go to question 3d**

6 ☐ Temporarily inactive but expected to reopen → **Go to question 3e**

7 ☐ No longer operating because of other reasons → **Go to question 3f**

3a. Seasonal operations

When did this business or organization close for the season?

Date B00217

YYYY	MM	DD
<input type="text"/>	<input type="text"/>	<input type="text"/>

When does this business or organization expect to resume operations?

Date B00218

YYYY	MM	DD
<input type="text"/>	<input type="text"/>	<input type="text"/>

 → **Go to question 4**

3b. Ceased operations

When did this business or organization cease operations?

Date B00211

YYYY	MM	DD
<input type="text"/>	<input type="text"/>	<input type="text"/>

Why did this business or organization cease operations?

B00311

1 ☐ Bankruptcy

2 ☐ Liquidation

3 ☐ Dissolution

4 ☐ Other  
Specify the other reasons why operations ceased

B00312

→ **Go to question 4**

### 3c. Sold operations

When was this business or organization sold?

B00212  
Date YYYY MM DD

What is the legal name of the buyer?

B00406

→ Go to question 4

### 3d. Amalgamated with other businesses or organizations

When did this business or organization amalgamate?

B00213  
Date YYYY MM DD

What is the legal name of the resulting or continuing business or organization?

B00407

What are the legal names of the other amalgamated businesses or organizations?

B00408

→ Go to question 4

### 3e. Temporarily inactive but expected to reopen

When did this business or organization become temporarily inactive?

B00214  
Date YYYY MM DD

When does this business or organization expect to resume operations?

B00215  
Date YYYY MM DD

Why is this business or organization temporarily inactive?

B00313

→ Go to question 4

### 3f. No longer operating because of other reasons

When did this business or organization cease operations?

B00216  
Date YYYY MM DD

Why did this business or organization cease operations?

B00314

4. **Verify or provide the current main activity** of the business or organization identified by the legal and operating name.

**Note:** The described activity was assigned using the North American Industry Classification System (NAICS).

B05002

1 ☐ This is the current main activity → **Go to next section**

2 ☐ This **is not** the current main activity  
Provide a **brief but precise description** of this business or organization's **main activity**  
**e.g.**, breakfast cereal manufacturing, shoe store, software development

B05003



5. Was this business or organization's main activity ever classified as:

B05111

1 ☐ Yes

2 ☐ No → **Go to next section**

6. When did the main activity change?

Date

B00219

YYYY	MM	DD
<input type="text"/>	<input type="text"/>	<input type="text"/>

INFORMATION COPY  
DO NOT USE TO REPORT

## Business characteristics

### Reporting period

1. What is the end date of this business's fiscal year? .....

	YYYY	MM	DD
B00206	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Note:** For this survey, **this business's** fiscal year end date should fall **on or before March 31, 2025**.

Here are **some examples** of fiscal periods that **fall within the targeted dates**:

May 1, 2023 to **April 30, 2024**

July 1, 2023 to **June 30, 2024**

October 1, 2023 to **September 30, 2024**

January 1, 2024 to **December 31, 2024**

February 1, 2024 to **January 31, 2025**

April 1, 2024 to **March 31, 2025**

\*THIS FISCAL YEAR WILL BE REFERRED TO AS **2024** THROUGHOUT THE QUESTIONNAIRE\*

### Business status

2. What is this business's **GST** number (9-digit business number)? .....

B00419	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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### 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 businesses, organizations or individuals to fund **R&D** performance:

- grants
- fellowships
- contracts.

## In-house research and development (R&D) expenditures

3. In 2024, 2025 and 2026, did this business have or does it plan to have expenditures for **R&D performed in-house** within Canada?

**Exclude** payments for outsourced (contracted out or granted) **R&D**, which should be reported in question 6.

<sup>1</sup> ☐ Yes

<sup>2</sup> ☐ No → Go to question 5

4. In 2024, 2025 and 2026, what are this business's actual and planned expenditures for **R&D performed in-house** within Canada?

Please report all amounts in **thousands** of Canadian dollars.

**Report '0' for no R&D expenditures.**

	Made in 2024	Planned in 2025	Planned in 2026
	CAN\$ '000	CAN\$ '000	CAN\$ '000
<b>Current in-house R&amp;D expenditures within Canada</b>			
a. Wages, salaries of permanent, temporary and casual <b>R&amp;D</b> employees <b>Include</b> fringe benefits . . . . .	E45077_sr1 \$ <input type="text"/> ,000		
b. Services to support <b>R&amp;D</b> <b>Include</b> services of self-employed individuals or contractors who are working on-site on this business's <b>R&amp;D</b> projects. <b>Exclude</b> contracted out or granted expenditures to other organizations to perform <b>R&amp;D</b> (report in question 6) . . . . .	E45077_sr2 \$ <input type="text"/> ,000 E45077_sr3 \$ <input type="text"/> ,000		
c. <b>R&amp;D</b> materials . . . . .	E45077_sr4 \$ <input type="text"/> ,000		
d. All other current <b>R&amp;D</b> costs <b>Include</b> overhead costs . . . . .	\$ <input type="text"/> ,000		
<b>Total current in-house R&amp;D expenditures within Canada</b>	E45050 \$ <input type="text"/> ,000	E45079 \$ <input type="text"/> ,000	E45082 \$ <input type="text"/> ,000
<b>Capital in-house R&amp;D expenditures within Canada</b>			
e. Software <b>Exclude</b> capital depreciation . . . . .	E45078_sr1 \$ <input type="text"/> ,000		
f. Land <b>Exclude</b> capital depreciation . . . . .	E45078_sr2 \$ <input type="text"/> ,000		
g. Buildings and structures <b>Exclude</b> capital depreciation . . . . .	E45078_sr3 \$ <input type="text"/> ,000		
h. Equipment, machinery and all other capital <b>Exclude</b> capital depreciation . . . . .	E45078_sr4 \$ <input type="text"/> ,000		
<b>2024 - Total capital in-house R&amp;D expenditures within Canada</b>	E45060 \$ <input type="text"/> ,000	E45081 \$ <input type="text"/> ,000	E45083 \$ <input type="text"/> ,000
<b>2024 - Total in-house R&amp;D expenditures within Canada</b>	E45070 \$ <input type="text"/> ,000		

## Outsourced (contracted out or granted) R&D expenditures

5. In 2024, did this business have **outsourced** (contracted out or granted) **R&D expenditures** within Canada or outside Canada?

**Include:** • funding or grants provided to other organizations to perform **R&D**.

• contracted out expenditures for **R&D**

**Exclude** services of self-employed individuals or contractors who are working on-site on this business's **R&D** projects, which should have been reported earlier as part of in-house **R&D** expenditures in question 4.

B05152\_tp 1

☐ Yes

2

☐ No → Go to question 7

6. In 2024, what were this business's **outsourced** (contracted out or granted) **R&D expenditures** within Canada or outside Canada?

Please report all amounts in **thousands** of Canadian dollars.

Report '0' for no R&D expenditures.

	Within Canada	Outside Canada
	CAN\$ '000	CAN\$ '000
a. Parent, affiliated and subsidiary companies	E46096_sr14 \$ <input type="text"/> ,000	E43039_sr14 \$ <input type="text"/> ,000
b. Other companies	E46096_sr1 \$ <input type="text"/> ,000	E43039_sr1 \$ <input type="text"/> ,000
c. Private non-profit organizations	E46096_sr2 \$ <input type="text"/> ,000	E43039_sr2 \$ <input type="text"/> ,000
d. Industrial research institutes or associations	E46096_sr3 \$ <input type="text"/> ,000	E43039_sr3 \$ <input type="text"/> ,000
e. Hospitals	E46096_sr4 \$ <input type="text"/> ,000	E43039_sr4 \$ <input type="text"/> ,000
f. Universities	E46096_sr5 \$ <input type="text"/> ,000	E43039_sr5 \$ <input type="text"/> ,000
g. Federal government departments and agencies	E46096_sr6 \$ <input type="text"/> ,000	
h. Provincial or territorial government departments, ministries and agencies	E46096_sr7 \$ <input type="text"/> ,000	
i. Provincial or territorial research organizations	E46096_sr8 \$ <input type="text"/> ,000	
j. Other organizations e.g., individuals, non-university educational institutions, foreign governments.	E46096_sr9 \$ <input type="text"/> ,000	E43039_sr6 \$ <input type="text"/> ,000
<b>2024 - Total outsourced (contracted out or granted) R&amp;D expenditures</b>	E46210 \$ <input type="text"/> ,000	E43030 \$ <input type="text"/> ,000

7. In 2025 and 2026, what are this business's **planned outsourced** (contracted out or granted) **R&D expenditures** within Canada or outside Canada?

Please report all amounts in **thousands** of Canadian dollars.

Report '0' for no R&D expenditures.

	Within Canada	Outside Canada
	CAN\$ '000	CAN\$ '000
<b>2025 - Total outsourced (contracted out or granted) R&amp;D expenditures</b>	E46097 \$ <input type="text"/> ,000	E43041 \$ <input type="text"/> ,000
<b>2026 - Total outsourced (contracted out or granted) R&amp;D expenditures</b>	E46098 \$ <input type="text"/> ,000	E43042 \$ <input type="text"/> ,000



## Geographic distribution of in-house R&D expenditures within Canada in 2024

8. In 2024, how were this business's total expenditures for **R&D performed in-house** distributed by province or territory?

**Exclude:**

- payments for outsourced (contracted out or granted) **R&D**, which should be reported in question 6
- capital depreciation.

Please report all amounts in **thousands** of Canadian dollars.

	Current in-house R&D expenditures	Capital in-house R&D expenditures
	CAN\$ '000	CAN\$ '000
a. Newfoundland and Labrador	E45077_g1 \$ ,000	E45078_g1 \$ ,000
b. Prince Edward Island	E45077_g2 \$ ,000	E45078_g2 \$ ,000
c. Nova Scotia	E45077_g3 \$ ,000	E45078_g3 \$ ,000
d. New Brunswick	E45077_g4 \$ ,000	E45078_g4 \$ ,000
e. Quebec	E45077_g5 \$ ,000	E45078_g5 \$ ,000
f. Ontario	E45077_g6 \$ ,000	E45078_g6 \$ ,000
g. Manitoba	E45077_g7 \$ ,000	E45078_g7 \$ ,000
h. Saskatchewan	E45077_g8 \$ ,000	E45078_g8 \$ ,000
i. Alberta	E45077_g9 \$ ,000	E45078_g9 \$ ,000
j. British Columbia	E45077_g10 \$ ,000	E45078_g10 \$ ,000
k. Yukon	E45077_g11 \$ ,000	E45078_g11 \$ ,000
l. Northwest Territories	E45077_g12 \$ ,000	E45078_g12 \$ ,000
m. Nunavut	E45077_g13 \$ ,000	E45078_g13 \$ ,000
<b>2024 - Total current and capital in-house R&amp;D expenditures</b>	E45100 \$ ,000	E45110 \$ ,000

▲  
Should equal  
total current  
in-house R&D  
expenditures  
from question 4

▲  
Should equal  
total capital  
in-house R&D  
expenditures  
from question 4

## Sources of funds for in-house R&D expenditures in 2024

9. In 2024, what were the **sources of funds** for this business's total expenditures for **R&D performed in-house**?

**Include** Canadian and foreign sources.

**Exclude:**

- payments for outsourced (contracted out or granted) **R&D**, which should be reported in question 6
- capital depreciation.

Please report all amounts in **thousands** of Canadian dollars.

Report **'0'** for no R&D expenditures.

	From within Canada	From outside Canada
	CAN\$ '000	CAN\$ '000
a. Funds from this business <b>Include</b> interest payments, other income and funding or tax credits from tax incentives (e.g., <b>SR&amp;ED</b> program). . . . .	E64047 \$ <input type="text"/> ,000	E63037 \$ <input type="text"/> ,000
b. Funds from parent, affiliated and subsidiary companies . . . . .	E65337 \$ <input type="text"/> ,000	E63044 \$ <input type="text"/> ,000
c. Federal government grants or funding <b>Include</b> R&D grants or funding or R&D portion only of other grants or funding. <b>Do not include</b> funds or tax credits from <b>SR&amp;ED</b> tax incentives . . . . .	E64048 \$ <input type="text"/> ,000	E65049 \$ <input type="text"/> ,000
d. Federal government contracts <b>Include</b> R&D contracts or R&D portion only of other contracts. . . . .	E65049 \$ <input type="text"/> ,000	

## R&D contract work for other companies

### Business 1

e. **GST** number (9-digit business number (BN) or charitable registration number)

B71014\_nc1

Legal name

B71014\_nc2

From within Canada

CAN\$ '000

From outside Canada

CAN\$ '000

E65048\_nc1

\$  ,000

E63038\_nc1

\$  ,000

### Business 2

f. **GST** number (9-digit business number (BN) or charitable registration number)

B71014\_nc3

Legal name

B71014\_nc4

E65048\_nc2

\$  ,000

E63038\_nc2

\$  ,000

### Business 3

g. **GST** number (9-digit business number (BN) or charitable registration number)

B71014\_nc5

Legal name

B71014\_nc6

E65048\_nc3

\$  ,000

E63038\_nc3

\$  ,000

### Business 4

h. **GST** number (9-digit business number (BN) or charitable registration number)

B71014\_nc7

Legal name

B71014\_nc8

E65048\_nc4

\$  ,000

E63038\_nc4

\$  ,000

i. Other contracts not listed above

E65048\_nc5

\$  ,000

E63038\_nc5

\$  ,000

# Geographic distribution of provincial or territorial government grants or funding and provincial or territorial government contracts

Include R&D grants/contracts or R&D portion only of other grants/contracts.

Provincial or territorial  
government grants  
or funding

Provincial or territorial  
government 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
l. 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	

## R&D contract work for private non-profit organizations

From within Canada

From outside Canada

CAN\$ '000

CAN\$ '000

### Organization 1

- w. **GST** number (9-digit business number (BN) or charitable registration number)

B71013\_nc1

E65052\_nc1

\$  ,000

E63039\_nc1

\$  ,000

Organization name

B71013\_nc2

### Organization 2

- x. **GST** number (9-digit business number (BN) or charitable registration number)

B71013\_nc3

E65052\_nc2

\$  ,000

E63039\_nc2

\$  ,000

Organization name

B71013\_nc4

### Organization 3

- y. **GST** number (9-digit business number (BN) or charitable registration number)

B71013\_nc5

E65052\_nc3

\$  ,000

E63039\_nc3

\$  ,000

Organization name

B71013\_nc6

- z. Other sources  
e.g., universities, foreign governments, individuals

E64051

\$  ,000

E63041

\$  ,000

**2024 - Total in-house R&D expenditures by sources of funds by origin (sum of questions a. to z.)**

E60310

\$  ,000

E60320

\$  ,000

**2024 - Total in-house R&D expenditures (Canadian and foreign sources) (should equal total in-house R&D expenditures from question 4)**

E60330

\$  ,000

## Fields of research and development for in-house R&D expenditures within Canada in 2024

10. In 2024, how were this business's **total expenditures** for **R&D performed in-house** within Canada distributed by field(s) of research and development?

**Exclude:**

- payments for outsourced (contracted out or granted) **R&D**, which should be reported in question 6
- capital depreciation.

Please report all amounts in **thousands** of Canadian dollars.

Report '0' for no R&D expenditures.

### Natural and formal sciences

**Exclude** computer sciences, information technology and bioinformatics (to be reported at lines s. and t.).

**CAN\$ '000**

a. Mathematics . . . . .	\$	<input type="text"/>	,000
		E45092_y1	
b. Physical sciences . . . . .	\$	<input type="text"/>	,000
		E45092_y2	
c. Chemical sciences . . . . .	\$	<input type="text"/>	,000
		E45092_y3	
d. Earth and related environmental sciences . . . . .	\$	<input type="text"/>	,000
		E45092_y4	
e. Biological sciences . . . . .	\$	<input type="text"/>	,000
		E45092_y5	
f. Other natural sciences . . . . .	\$	<input type="text"/>	,000
		E45092_y6	
<b>Total natural and formal sciences</b>	\$	<input type="text"/>	,000
		E45085	

### Engineering and technology

**Exclude** software engineering and technology (to be reported at line r.).

**CAN\$ '000**

g. Civil engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y1	
h. Electrical engineering, electronic engineering and communications technology . . . . .	\$	<input type="text"/>	,000
		E45093_y2	
i. Mechanical engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y3	
j. Chemical engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y4	
k. Materials engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y5	
l. Medical engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y6	
m. Environmental engineering . . . . .	\$	<input type="text"/>	,000
		E45093_y7	
n. Environmental biotechnology . . . . .	\$	<input type="text"/>	,000
		E45093_y8	
o. Industrial biotechnology . . . . .	\$	<input type="text"/>	,000
		E45093_y9	
p. Nanotechnology . . . . .	\$	<input type="text"/>	,000
		E45093_y10	
q. Other engineering and technologies . . . . .	\$	<input type="text"/>	,000
		E45093_y11	
<b>Total engineering and technology</b>	\$	<input type="text"/>	,000
		E45086	

**Software-related sciences and technology**

CAN\$ '000

r. Software engineering and technology .....	\$	<input type="text" value="E45094_y1"/>	,000
s. Computer sciences .....	\$	<input type="text" value="E45094_y2"/>	,000
t. Information technology and bioinformatics .....	\$	<input type="text" value="E45094_y3"/>	,000
<b>Total software-related sciences and technology</b>	\$	<input type="text" value="E45087"/>	,000

**Medical and health sciences**

u. Basic medicine .....	\$	<input type="text" value="E45084_y1"/>	,000
v. Clinical medicine .....	\$	<input type="text" value="E45084_y2"/>	,000
w. Health sciences .....	\$	<input type="text" value="E45084_y3"/>	,000
x. Medical biotechnology .....	\$	<input type="text" value="E45084_y4"/>	,000
y. Other medical sciences .....	\$	<input type="text" value="E45084_y5"/>	,000
<b>Total medical and health sciences</b>	\$	<input type="text" value="E45120"/>	,000

**Agricultural sciences**

z. Agriculture, forestry and fisheries sciences .....	\$	<input type="text" value="E45095_y1"/>	,000
aa. Animal and dairy sciences .....	\$	<input type="text" value="E45095_y2"/>	,000
ab. Veterinary sciences .....	\$	<input type="text" value="E45095_y3"/>	,000
ac. Agricultural biotechnology .....	\$	<input type="text" value="E45095_y4"/>	,000
ad. Other agricultural sciences .....	\$	<input type="text" value="E45095_y5"/>	,000
<b>Total agricultural sciences</b>	\$	<input type="text" value="E45088"/>	,000

**Social sciences and humanities**

ae. Psychology .....	\$	<input type="text" value="E45096_y1"/>	,000
af. Educational sciences .....	\$	<input type="text" value="E45096_y2"/>	,000
ag. Economics and business .....	\$	<input type="text" value="E45096_y3"/>	,000
ah. Other social sciences .....	\$	<input type="text" value="E45096_y4"/>	,000
ai. Humanities .....	\$	<input type="text" value="E45096_y5"/>	,000
<b>Total social sciences and humanities</b>	\$	<input type="text" value="E45089"/>	,000

**2024 - Total in-house R&D expenditures within Canada by field of research and development**  
(should equal total in-house R&D expenditures from question 4) (sum of questions a. to ai.)

\$  ,000

## Nature of R&D for in-house R&D expenditures within Canada in 2024

11. In 2024, how were this business's **total expenditures** for **R&D performed in-house** within Canada distributed by nature of **R&D**?

**Basic research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.

**Applied research** is original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective.

**Experimental development** is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

(OECD. Frascati Manual: Proposed Standard for Surveys on Research and Experimental Development, 2015)

### Percentage of total in-house R&D expenditures

a. Basic research .....

E45091\_y1  
   %

b. Applied research .....

E45091\_y2  
   %

c. Experimental development .....

E45091\_y3  
   %

**Total percentage**

E45140  
   %

## Results of R&D expenditures from 2022 to 2024

12. During the three (3) years **2022, 2023** and **2024**, did this business's **total expenditures** for **R&D performed in-house** and **outsourced** (contracted out or granted) within Canada or outside Canada lead to new or significant improvements to the following?

- a. Goods  
**Include** goods developed through new knowledge from research discoveries. ....
- b. Services  
**Include** on-going knowledge transfer to physicians, first responders, patients and the general public. ....
- c. Methods of manufacturing or producing goods and services .....
- d. Logistics, delivery or distribution methods for this business's inputs, goods or services. ....
- e. Supporting activities for this business's processes, such as maintenance systems or operations for purchasing, accounting or computing. ....

**Yes**

**No**

B10033 1 ☐ 2 ☐

B10034 1 ☐ 2 ☐

B10035 1 ☐ 2 ☐

B10036 1 ☐ 2 ☐

B10037 1 ☐ 2 ☐

## In-house R&D personnel in 2024

13. In 2024, how many **in-house R&D personnel** within Canada did this business have in the following **R&D** occupations?

Please report in **full-time equivalents (FTE)**.

**Include** on-site consultants and contractors in line e.

If this business is unable to provide a gender breakdown of **FTEs**, please leave the associated fields empty and report only the totals.

### Full-time equivalent (FTE)

**R&D** may be carried out by persons who work solely on **R&D** projects or by persons who devote only part of their time to **R&D**, and the balance to other activities such as testing, quality control and production engineering. To arrive at the total effort devoted to **R&D** in terms of personnel, it is necessary to estimate the full-time equivalent of these persons working only part-time in **R&D**.

**Full-time equivalent (FTE)** = Number of persons who work solely on **R&D** projects + the time of persons working only part of their time on **R&D**.

**Example calculation:** If out of four scientists engaged in **R&D** work, one works solely on **R&D** projects and the remaining three devote only one quarter of their working time to **R&D**, then: **FTE** = 1 + 1/4 + 1/4 + 1/4 = 1.75 scientists.

### Researchers and research managers

	Men (FTEs)	Women (FTEs)	Non-binary persons (FTEs)	Total (FTEs)
a. Scientists, social scientists, engineers and researchers <b>Include</b> software developers and programmers. ....	B20045_o1_y1	B20045_o2_y1	B20045_o3_y1	B20045_y1
	B20045_o1_y2	B20045_o2_y2	B20045_o3_y2	B20045_y2
b. Senior research managers .....				
	B20045_o1_y3	B20045_o2_y3	B20045_o3_y3	B20045_y3
<b>Total researchers and research managers</b>				

### R&D technical, administrative and support staff

c. Technicians, technologists and research assistants <b>Include</b> software technicians. ....	B20045_o1_y4	B20045_o2_y4	B20045_o3_y4	B20045_y4
	B20045_o1_y5	B20045_o2_y5	B20045_o3_y5	B20045_y5
d. Other <b>R&amp;D</b> technical, administrative and support staff .....				
	B20045_o1_y6	B20045_o2_y6	B20045_o3_y6	B20045_y6
<b>Total R&amp;D technical, administrative and support staff</b>				

### Other R&D occupations

e. On-site <b>R&amp;D</b> consultants and contractors .....	B20045_o1_y7	B20045_o2_y7	B20045_o3_y7	B20045_y7
<b>Total in-house R&amp;D personnel within Canada (sum of questions a. to e.)</b>	B20040_o1	B20040_o2	B20040_o3	B20040

### Percentage of software-related activities

B20046

14. Of this business's **total in-house R&D personnel** reported above, what percentage performed software-related activities? .....

			%
--	--	--	---



15. In 2024, how were the **total in-house R&D personnel** distributed by province or territory?

Please report in **full-time equivalents (FTE)**.

	Number of researchers and research managers	Number of R&D technical, administrative and support staff	Number of on-site R&D consultants and contractors
a. Newfoundland and Labrador . . . . .	B20047_g1 [ ] [ ]	B20048_g1 [ ] [ ]	B20049_g1 [ ] [ ]
b. Prince Edward Island . . . . .	B20047_g2 [ ] [ ]	B20048_g2 [ ] [ ]	B20049_g2 [ ] [ ]
c. Nova Scotia . . . . .	B20047_g3 [ ] [ ]	B20048_g3 [ ] [ ]	B20049_g3 [ ] [ ]
d. New Brunswick . . . . .	B20047_g4 [ ] [ ]	B20048_g4 [ ] [ ]	B20049_g4 [ ] [ ]
e. Quebec . . . . .	B20047_g5 [ ] [ ]	B20048_g5 [ ] [ ]	B20049_g5 [ ] [ ]
f. Ontario . . . . .	B20047_g6 [ ] [ ]	B20048_g6 [ ] [ ]	B20049_g6 [ ] [ ]
g. Manitoba . . . . .	B20047_g7 [ ] [ ]	B20048_g7 [ ] [ ]	B20049_g7 [ ] [ ]
h. Saskatchewan . . . . .	B20047_g8 [ ] [ ]	B20048_g8 [ ] [ ]	B20049_g8 [ ] [ ]
i. Alberta . . . . .	B20047_g9 [ ] [ ]	B20048_g9 [ ] [ ]	B20049_g9 [ ] [ ]
j. British Columbia . . . . .	B20047_g10 [ ] [ ]	B20048_g10 [ ] [ ]	B20049_g10 [ ] [ ]
k. Yukon . . . . .	B20047_g11 [ ] [ ]	B20048_g11 [ ] [ ]	B20049_g11 [ ] [ ]
l. Northwest Territories . . . . .	B20047_g12 [ ] [ ]	B20048_g12 [ ] [ ]	B20049_g12 [ ] [ ]
m. Nunavut . . . . .	B20047_g13 [ ] [ ]	B20048_g13 [ ] [ ]	B20049_g13 [ ] [ ]
<b>Total in-house R&amp;D personnel within Canada</b>	B20050 [ ] [ ]	B20060 [ ] [ ]	B20070 [ ] [ ]
	Should equal total researchers and research managers from question 13	Should equal total R&D technical, administrative and support staff from question 13	Should equal total on-site consultants and contractors from question 13

## Technology and technical assistance payments in 2024

16. In 2024, how much did this business pay to other organizations for technology and technical assistance?

Please report all amounts in **thousands** of Canadian dollars.

Report '1' for payments made between \$1 and \$999.

### Payments made to parent, affiliated or subsidiary companies

#### Payments made within Canada

CAN\$ '000

#### Payments made outside Canada

CAN\$ '000

a. Patents .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
b. Copyrights .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
c. Trademarks .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
d. Industrial designs .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
e. Integrated circuit topography .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
f. Original software .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
g. Packaged or off-the-shelf software .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
h. Databases (useful life exceeding one year) .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
i. Other technology and technical assistance Include technical assistance, industrial processes and know-how .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
<b>Total payments made to parent, affiliated or subsidiary companies (sum of questions a. to i.)</b>	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000

### Payments made to other companies, organizations or individuals

j. Patents .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
k. Copyrights .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
l. Trademarks .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
m. Industrial designs .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
n. Integrated circuit topography .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
o. Original software .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
p. Packaged or off-the-shelf software .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
q. Databases (useful life exceeding one year) .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
r. Other technology and technical assistance Include technical assistance, industrial processes and know-how .....	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
<b>Total payments made to other companies, organizations or individuals (sum of questions j. to r.)</b>	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000
<b>Total payments made to other organizations for technology and technical assistance (sum of questions a. to r.)</b>	\$ <input type="text"/> ,000	\$ <input type="text"/> ,000

17. In 2024, how much did this business receive from other organizations for technology and technical assistance?

Please report all amounts in **thousands** of Canadian dollars.  
Report '1' for payments received **between \$1 and \$999**.

**Payments received from parent, affiliated or subsidiary companies**

**Payments received  
from within Canada**

**Payments received  
from outside Canada**

CAN\$ '000

CAN\$ '000

	E46102_pc1		E63042_pc1
a. Patents .....	\$ ,000	\$ ,000	
	E46102_pc2		E63042_pc2
b. Copyrights .....	\$ ,000	\$ ,000	
	E46102_pc3		E63042_pc3
c. Trademarks .....	\$ ,000	\$ ,000	
	E46102_pc4		E63042_pc4
d. Industrial designs .....	\$ ,000	\$ ,000	
	E46102_pc5		E63042_pc5
e. Integrated circuit topography .....	\$ ,000	\$ ,000	
	E46102_pc6		E63042_pc6
f. Original software .....	\$ ,000	\$ ,000	
	E46102_pc7		E63042_pc7
g. Packaged or off-the-shelf software .....	\$ ,000	\$ ,000	
	E46102_pc8		E63042_pc8
h. Databases (useful life exceeding one year) .....	\$ ,000	\$ ,000	
i. Other technology and technical assistance Include technical assistance, industrial processes and know-how .....	\$ ,000	\$ ,000	
	E46240		E63030
<b>Total payments received from parent, affiliated or subsidiary companies (sum of questions a. to i.)</b>	\$ ,000	\$ ,000	

**Payments received from other companies,  
organizations or individuals**

	E46103_pc1		E63043_pc1
j. Patents .....	\$ ,000	\$ ,000	
	E46103_pc2		E63043_pc2
k. Copyrights .....	\$ ,000	\$ ,000	
	E46103_pc3		E63043_pc3
l. Trademarks .....	\$ ,000	\$ ,000	
	E46103_pc4		E63043_pc4
m. Industrial designs .....	\$ ,000	\$ ,000	
	E46103_pc5		E63043_pc5
n. Integrated circuit topography .....	\$ ,000	\$ ,000	
	E46103_pc6		E63043_pc6
o. Original software .....	\$ ,000	\$ ,000	
	E46103_pc7		E63043_pc7
p. Packaged or off-the-shelf software .....	\$ ,000	\$ ,000	
	E46103_pc8		E63043_pc8
q. Databases (useful life exceeding one year) .....	\$ ,000	\$ ,000	
r. Other technology and technical assistance Include technical assistance, industrial processes and know-how .....	\$ ,000	\$ ,000	
	E46250		E63040
<b>Total payments received from other companies, organizations or individuals (sum of questions j. to r.)</b>	\$ ,000	\$ ,000	
	E46270		E63050
<b>Total payments received from other organizations for technology and technical assistance (sum of questions a. to r.)</b>	\$ ,000	\$ ,000	

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

18. In 2024, 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

	2024 in-house energy-related R&D expenditures		
Energy-related <b>R&amp;D</b> by area of technology (consult the reporting guide at <a href="http://www.statcan.gc.ca/guides-e">www.statcan.gc.ca/guides-e</a> for further information and definitions)	A Funds from this business	B Funds from federal, provincial or territorial government(s)	C All other Canadian sources of funds
	CAN\$ '000		
<b>1. Fossil fuels</b>			
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 <b>Include</b> 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	E64053_e1_y3 \$ ,000	E64054_e1_y3 \$ ,000
d) Refining, processing and upgrading of fossil fuels	E64052_e1_y4 \$ ,000	E64053_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
<b>2. Renewable energy resources</b>			
a) Solar photovoltaics (PV)	E64052_e2_y1 \$ ,000	E64053_e2_y1 \$ ,000	E64054_e2_y1 \$ ,000
b) Solar thermal-power and high-temperature applications	E64052_e2_y2 \$ ,000	E64053_e2_y2 \$ ,000	E64054_e2_y2 \$ ,000
c) Solar heating and cooling	E64052_e2_y3 \$ ,000	E64053_e2_y3 \$ ,000	E64054_e2_y3 \$ ,000
d) Wind energy	E64052_e2_y4 \$ ,000	E64053_e2_y4 \$ ,000	E64054_e2_y4 \$ ,000
e) Bio-energy – biomass production and transport	E64052_e2_y5 \$ ,000	E64053_e2_y5 \$ ,000	E64054_e2_y5 \$ ,000
f) Bio-energy – biomass conversion to transportation fuel	E64052_e2_y6 \$ ,000	E64053_e2_y6 \$ ,000	E64054_e2_y6 \$ ,000
g) Bio-energy – biomass conversion to heat and electricity	E64052_e2_y7 \$ ,000	E64053_e2_y7 \$ ,000	E64054_e2_y7 \$ ,000
h) Other bio-energy	E64052_e2_y8 \$ ,000	E64053_e2_y8 \$ ,000	E64054_e2_y8 \$ ,000
i) Small hydro (less than 10 MW)	E64052_e2_y9 \$ ,000	E64053_e2_y9 \$ ,000	E64054_e2_y9 \$ ,000
j) Large hydro (greater than or equal to 10 MW)	E64052_e2_y10 \$ ,000	E64053_e2_y10 \$ ,000	E64054_e2_y10 \$ ,000
k) Other renewable energy <b>Include</b> ocean and geothermal.	E64052_e2_y11 \$ ,000	E64053_e2_y11 \$ ,000	E64054_e2_y11 \$ ,000

2024 in-house energy-related R&D expenditures				2024 outsourced (contracted out or granted) energy-related R&D expenditures					
D All foreign sources of funds		Total in-house R&D (= A+B+C+D)		E Outsourced (contracted out or granted) within Canada		F Outsourced (contracted out or granted) outside Canada		Total outsourced R&D (= E+F)	
CAN\$ '000				CAN\$ '000					
1. Fossil fuels									
E63045_e1_y1		E45097_e1_y1		E46104_e1_y1		E43045_e1_y1		E40430_e1_y1	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,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		E45097_e1_y4		E46104_e1_y4		E43045_e1_y4		E40430_e1_y4	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e1_y5		E45097_e1_y5		E46104_e1_y5		E43045_e1_y5		E40430_e1_y5	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e1_y6		E45097_e1_y6		E46104_e1_y6		E43045_e1_y6		E40430_e1_y6	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
2. Renewable energy resources									
E63045_e2_y1		E45097_e2_y1		E46104_e2_y1		E43045_e2_y1		E40430_e2_y1	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y2		E45097_e2_y2		E46104_e2_y2		E43045_e2_y2		E40430_e2_y2	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y3		E45097_e2_y3		E46104_e2_y3		E43045_e2_y3		E40430_e2_y3	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y4		E45097_e2_y4		E46104_e2_y4		E43045_e2_y4		E40430_e2_y4	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y5		E45097_e2_y5		E46104_e2_y5		E43045_e2_y5		E40430_e2_y5	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y6		E45097_e2_y6		E46104_e2_y6		E43045_e2_y6		E40430_e2_y6	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y7		E45097_e2_y7		E46104_e2_y7		E43045_e2_y7		E40430_e2_y7	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y8		E45097_e2_y8		E46104_e2_y8		E43045_e2_y8		E40430_e2_y8	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y9		E45097_e2_y9		E46104_e2_y9		E43045_e2_y9		E40430_e2_y9	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y10		E45097_e2_y10		E46104_e2_y10		E43045_e2_y10		E40430_e2_y10	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	
E63045_e2_y11		E45097_e2_y11		E46104_e2_y11		E43045_e2_y11		E40430_e2_y11	
\$ ,000		\$ ,000		\$ ,000		\$ ,000		\$ ,000	

Energy-related <b>R&amp;D</b> by area of technology (consult the reporting guide at www.statcan.gc.ca/guides-e for further information and definitions)	2024 in-house energy-related R&D expenditures		
	A	B	C
	Funds from this business	Funds from federal, provincial or territorial government(s)	All other Canadian sources of funds
CAN\$ '000			
3. Nuclear fission and fusion			
a) Nuclear materials exploration, mining and preparation, tailings management	E64052_e3_y1 \$ ,000	E64053_e3_y1 \$ ,000	E64054_e3_y1 \$ ,000
b) Nuclear reactors	E64052_e3_y2 \$ ,000	E64053_e3_y2 \$ ,000	E64054_e3_y2 \$ ,000
c) Other fission	E64052_e3_y3 \$ ,000	E64053_e3_y3 \$ ,000	E64054_e3_y3 \$ ,000
d) Fusion	E64052_e3_y4 \$ ,000	E64053_e3_y4 \$ ,000	E64054_e3_y4 \$ ,000
4. Electric power			
a) Electric power generation in utility sector	E64052_e4_y1 \$ ,000	E64053_e4_y1 \$ ,000	E64054_e4_y1 \$ ,000
b) Electric power - combined 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			
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 \$ ,000	E64053_e5_y4 \$ ,000	E64054_e5_y4 \$ ,000
e) Stationary fuel cells	E64052_e5_y5 \$ ,000	E64053_e5_y5 \$ ,000	E64054_e5_y5 \$ ,000
f) Mobile fuel cells	E64052_e5_y6 \$ ,000	E64053_e5_y6 \$ ,000	E64054_e5_y6 \$ ,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 \$ ,000	E64053_e6_y2 \$ ,000	E64054_e6_y2 \$ ,000
c) Energy efficiency for transportation	E64052_e6_y3 \$ ,000	E64053_e6_y3 \$ ,000	E64054_e6_y3 \$ ,000
d) Other energy efficiency	E64052_e6_y4 \$ ,000	E64053_e6_y4 \$ ,000	E64054_e6_y4 \$ ,000
7. Other energy-related technologies			
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 \$ ,000	E64053_e7_y5 \$ ,000	E64054_e7_y5 \$ ,000

2024 in-house energy-related R&D expenditures		2024 outsourced (contracted out or granted) energy-related R&D expenditures		
D All foreign sources of funds	Total in-house R&D (= A+B+C+D)	E Outsourced (contracted out or granted) within Canada	F Outsourced (contracted out or granted) outside Canada	Total outsourced R&D (= E+F)
CAN\$ '000		CAN\$ '000		
3. Nuclear fission and fusion				
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
E63045_e3_y3 \$ ,000	E45097_e3_y3 \$ ,000	E46104_e3_y3 \$ ,000	E43045_e3_y3 \$ ,000	E40430_e3_y3 \$ ,000
E63045_e3_y4 \$ ,000	E45097_e3_y4 \$ ,000	E46104_e3_y4 \$ ,000	E43045_e3_y4 \$ ,000	E40430_e3_y4 \$ ,000
4. Electric power				
E63045_e4_y1 \$ ,000	E45097_e4_y1 \$ ,000	E46104_e4_y1 \$ ,000	E43045_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
E63045_e4_y3 \$ ,000	E45097_e4_y3 \$ ,000	E46104_e4_y3 \$ ,000	E43045_e4_y3 \$ ,000	E40430_e4_y3 \$ ,000
5. Hydrogen and fuel cells				
E63045_e5_y1 \$ ,000	E45097_e5_y1 \$ ,000	E46104_e5_y1 \$ ,000	E43045_e5_y1 \$ ,000	E40430_e5_y1 \$ ,000
E63045_e5_y2 \$ ,000	E45097_e5_y2 \$ ,000	E46104_e5_y2 \$ ,000	E43045_e5_y2 \$ ,000	E40430_e5_y2 \$ ,000
E63045_e5_y3 \$ ,000	E45097_e5_y3 \$ ,000	E46104_e5_y3 \$ ,000	E43045_e5_y3 \$ ,000	E40430_e5_y3 \$ ,000
E63045_e5_y4 \$ ,000	E45097_e5_y4 \$ ,000	E46104_e5_y4 \$ ,000	E43045_e5_y4 \$ ,000	E40430_e5_y4 \$ ,000
E63045_e5_y5 \$ ,000	E45097_e5_y5 \$ ,000	E46104_e5_y5 \$ ,000	E43045_e5_y5 \$ ,000	E40430_e5_y5 \$ ,000
E63045_e5_y6 \$ ,000	E45097_e5_y6 \$ ,000	E46104_e5_y6 \$ ,000	E43045_e5_y6 \$ ,000	E40430_e5_y6 \$ ,000
6. Energy efficiency				
E63045_e6_y1 \$ ,000	E45097_e6_y1 \$ ,000	E46104_e6_y1 \$ ,000	E43045_e6_y1 \$ ,000	E40430_e6_y1 \$ ,000
E63045_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
E63045_e6_y4 \$ ,000	E45097_e6_y4 \$ ,000	E46104_e6_y4 \$ ,000	E43045_e6_y4 \$ ,000	E40430_e6_y4 \$ ,000
7. Other energy-related technologies				
E63045_e7_y1 \$ ,000	E45097_e7_y1 \$ ,000	E46104_e7_y1 \$ ,000	E43045_e7_y1 \$ ,000	E40430_e7_y1 \$ ,000
E63045_e7_y2 \$ ,000	E45097_e7_y2 \$ ,000	E46104_e7_y2 \$ ,000	E43045_e7_y2 \$ ,000	E40430_e7_y2 \$ ,000
E63045_e7_y3 \$ ,000	E45097_e7_y3 \$ ,000	E46104_e7_y3 \$ ,000	E43045_e7_y3 \$ ,000	E40430_e7_y3 \$ ,000
E63045_e7_y4 \$ ,000	E45097_e7_y4 \$ ,000	E46104_e7_y4 \$ ,000	E43045_e7_y4 \$ ,000	E40430_e7_y4 \$ ,000
E63045_e7_y5 \$ ,000	E45097_e7_y5 \$ ,000	E46104_e7_y5 \$ ,000	E43045_e7_y5 \$ ,000	E40430_e7_y5 \$ ,000

## Environmental and clean technology R&D expenditures in 2024

19. In 2024, what percentage of this business's **total expenditures** for **R&D performed in-house** within Canada was related to **research and development of environmental and clean technologies**?

**Environmental and clean technology product** is defined as any process, product, or service that reduces environmental impacts: through environmental protection activities that prevent, reduce or eliminate pollution or any other degradation of the environment, resource management activities that result in the more efficient use of natural resources, thus safeguarding against their depletion; or the use of goods that have been adapted to be significantly less energy or resource intensive than the industry standard.

**Report '0' for no environmental and clean technology R&D expenditures.**

If precise figures are not available, please provide your best estimate.

Percentage of  
environmental and  
clean technology  
R&D

E45238

%

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20. In 2024, in which of the following categories of **environmental and clean technology** did this business perform **R&D** activities?

Mark all that apply.

B05203\_y11

☐

Air pollution management

**e.g.**, greenhouse gas control technologies or management services, physical or chemical treatment technologies, air pollution modeling and mapping services

B05203\_y9

☐

Solid waste management

**e.g.**, collection of waste, recycling and organics, compaction-related technologies, landfill leachate collection and containment technologies

B05203\_y10

☐

Wastewater management

**e.g.**, physical or chemical treatments of industrial wastewater, mine tailing handling and treatment, biological treatments of sewage

B05203\_y12

☐

Protection and remediation of soil, groundwater and surface water

**e.g.**, in situ and ex situ biological, physical, chemical, thermal treatments, containment

B05203\_y13

☐

Protection of biodiversity and habitat

B05203\_y14

☐

Noise and vibration abatement

**Exclude R&D** related to workers' health and safety.

B05203\_y15

☐

Protection against radiation

**Exclude R&D** related to workers' health and safety.

B05203\_y16

☐

Heat and energy savings and management

**e.g.**, efficient equipment (advance insulation, high efficiency pumps or burner (Energy Star certified), etc.), energy storage technologies (flywheels, fuel cells), lighting upgrades, smart grid services and associated technologies

B05203\_y17

☐

Fuel efficient vehicles and transportation goods or technologies

**e.g.**, electric and hybrid vehicles, vehicles using alternative fuels, alternative fuel retrofits on existing vehicles, low-rolling resistance tires

B05203\_y18

☐

Production of energy from renewable sources

**e.g.**, equipment, services, and technologies used to produce electricity or heat from renewable sources

B05203\_y20

☐

Production of nuclear energy

**e.g.**, equipment, services, and technologies used to produce electricity or heat from nuclear energy

**Exclude the R&D** on feedstock used to produce energy such as uranium

B05203\_y90

☐

Other environmental protection or resource management activities

Specify the other environmental protection or resource management activities

B05203\_y91

## Notification of intent to extract web data

21. Does this organization have a website?

B00024

1

☐

Yes



Specify the organization website address 1

e.g., [www.example.ca](http://www.example.ca)

B00025

Specify the organization website address 2

e.g., [www.example.ca](http://www.example.ca)

B00030

Specify the organization website address 3

e.g., [www.example.ca](http://www.example.ca)

B00031

2

☐

No



Statistics Canada engages in web-data extraction, also known as web scraping, which is a process by which information is gathered and copied from the Web using automated scripts or robots, for retrieval and analysis. As a result, we may visit the website for this organization to search for and compile additional information. The use of web scraping is part of a broader effort to reduce the response burden on organizations, as well as produce additional statistical indicators to ensure that our data remain accurate and relevant.

We will strive to ensure that the data collection does not interfere with the functionality of the website. Any data collected will be used by Statistics Canada for statistical and research purposes only, in accordance with the agency's privacy and confidentiality mandate.

For more information regarding Statistics Canada's web scraping initiative, please visit <http://www.statcan.gc.ca/eng/our-data/where/web-scraping>.

To learn more about Statistics Canada's transparency and accountability, please visit <http://www.statcan.gc.ca/eng/transparency-accountability>.

If you have any questions or concerns, please contact **Statistics Canada Client Services**, toll-free at 1-877-949-9492 (TTY: 1-800-363-7629) or by email at [infostats@statcan.gc.ca](mailto:infostats@statcan.gc.ca). Additional information about this survey can be found at the following link: <http://www.statcan.gc.ca/survey>.

## Changes or events

22. Indicate any changes or events that affected the reported values for this business or organization compared with the last reporting period.

Mark all that apply.

B00316\_r1

☐

Outsourcing of **R&D** projects

B00316\_r2

☐

Initiation of new **R&D** projects

B00316\_r3

☐

Completion of existing **R&D** projects

B00316\_r4

☐

Major change in funding of **R&D** projects (loss of funding)

B00316\_r5

☐

Major change in funding of **R&D** projects (increase in funding)

B00316\_r6

☐

Organizational change that affected **R&D** activities (expansion, reduction, restructuring)

B00316\_r7

☐

Economic change that affected **R&D** activities

B00316\_r11

☐

Lack of availability of qualified **R&D** personnel

B00302\_t15

☐

Other changes or events — specify:

B00302\_t16

**OR**

B00316\_t17

☐

No changes or events

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## Contact person

23. Statistics Canada may need to contact the person who completed this questionnaire for further information.

If the contact person is the same as on cover page, please check ☐ → **Go to "Feedback"**

Otherwise, who is the **best person to contact** about this questionnaire?

First name

Last name


Title

Email address (Example: user@example.gov.ca)

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Telephone number (including area code)  
Example: 123-123-1234

Extension number  
(if applicable)



Fax number (including area code)  
Example: 123-123-1234

## Feedback

24. How long did it take to complete this questionnaire?

**Include** the time spent gathering the necessary information.....

Hours

Minutes

25. We invite your comments about this questionnaire.

B00002

A sheet of white paper with horizontal ruling lines. In the top left corner, there is a faint, orange, diagonal watermark that reads "INFO DO NOT". The watermark is partially cut off by the top and left edges of the page. The rest of the page is blank with horizontal lines.

## General information

### Confidentiality

#### Your answers are confidential.

By law, Statistics Canada is prohibited from releasing any information it collects that 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 only.

### 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.

### Innovation, Science and Economic Development Canada

For this survey, Statistics Canada will share survey data with Innovation, Science and Economic Development Canada. The shared data will be limited to information on research and development expenditures (Questions 4 to 12) and in-house research and development personnel (Questions 13 to 15).

### 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).

### Department of Finance Canada

For this survey, Statistics Canada will share survey data with the Department of Finance Canada. The shared data will be limited to information on environmental protection expenditures (Questions 19 and 20).

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 reduce the reporting burden, Statistics Canada may combine the acquired data with information from other surveys or from administrative sources.

**Thank you for completing this questionnaire.**

**Please retain a copy for your records.**

**Visit our website, [www.statcan.gc.ca](http://www.statcan.gc.ca)**