



In all correspondence concerning this questionnaire, please quote this nine-digit reference number

Si vous préférez ce questionnaire en français, veuillez appeler le bureau de Statistique Canada le plus près (voir à la page 15)

Please correct name and address, if necessary



Purpose

The information you provide is essential to assure the availability of pertinent information to monitor science and technology related activities and to support the development of science and technology policy.

questionnaire will be treated in strict confidence, used for statistical purposes, and published in aggregate form only. The confidentiality provision of the Statistics Act are not affected by either the Access to Information Act or by any other legislation.

Authority

Collected under authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19.

Questions?

If you require assistance in the completion of this questionnaire or have any questions regarding this survey, please phone collect any Statistics Canada regional office listed on page 15.

Confidentiality

Statistics Canada is prohibited by law from publishing any statistics which would divulge information relating to any identifiable business without the previous written consent of that business. The data reported on this

Survey Contact

Please indicate the name of the person completing this form so we know who to contact should we have questions about this report.

Name	Title
Telephone Number	Fax Number
<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"/> <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"/> <input type="text"/> <input type="text"/>

1. General information

Please report information for 1996 or the latest fiscal year available. **Exclude GST and all other taxes collected by you for remittance to a government agency. Do not include operations of your subsidiaries located abroad.**

	Year	Amount
1. Operating Revenue (\$000)	1	2
2. Exports to other countries (as % of operating revenue)		4 %
3. Sales to other provinces (as % of operating revenue)		6 %
4. Number of employees (average for the year)		8
a) Total		10
b) Full-time		12
c) Part-time		14
d) Contract		16
5. Number of employees, by level of education. Please provide your best estimate.		18
a) University graduates		20
b) College graduates		
c) All other employees		

6. Does your firm have a formal employee development (continuing education and training) program? 1 Yes ↘ 2 No

7. If yes, what was your firm's total expenditure on education and training in 1996 (or the latest year for which data are available).

i) (\$000)	1
ii) or (% of operating revenue)	2 %
iii) Year	3

7a. What was the cost of employee's time for participation in training programs.

i) (\$000)	1
ii) or (% of operating revenue)	2 %
iii) Year	3

8. Does your firm plan to increase or decrease personnel development expenditures in the next year? Please check one for each of the following groups.

	Increase	Decrease	No change	Do not know
a) <u>All employees</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
b) <u>University graduates</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
c) <u>College graduates</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
d) <u>Other employees</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>

9. Does your firm use the Internet? 1 Yes ↘ 2 No

10. If yes, what percentage of your employees has access to Internet from their desks?
Please check one below.

1 <input type="radio"/> all employees	4 <input type="radio"/> 25% to 49%
2 <input type="radio"/> 75% to 99%	5 <input type="radio"/> 10% to 24%
3 <input type="radio"/> 50% to 74%	6 <input type="radio"/> less than 10%

11. If your firm uses Internet, do you use it

	Yes	No
a) <u>for e-mail</u>	1 <input type="radio"/>	2 <input type="radio"/>
b) <u>for searches on World Wide Web</u>	3 <input type="radio"/>	4 <input type="radio"/>
c) <u>for selling, not just advertising, your goods and services</u>	5 <input type="radio"/>	6 <input type="radio"/>

12. Does your firm have a home page on World Wide Web? 1 Yes 2 No

Form of organization

13. Is the primary purpose of your firm to provide goods and services to your parent company, an affiliated company or a professional service firm? 1 Yes 2 No

14. Is your firm a joint venture? 1 Yes 2 No

15. Is your firm affiliated with a chain or franchise? 1 Yes 2 No

16. Is your firm member of a cooperative or consortium? 1 Yes 2 No

17. Year

a) <u>When was your firm established</u>	1
b) <u>or ownership changed hands last</u>	2

18. Please enter your nine-digit GST Registered Account Number

R									
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2. Innovation

2A Innovation Activity

19. Did your firm offer new or improved **products (goods or services)** to your customers during 1994-1996?

¹ Yes ² No

If yes, please list the most important **products (goods or services)**.

20. Did your firm introduce new or improved **processes** in your firm during 1994-1996 for the supply of products (goods or services)?

¹ Yes ² No

If yes, please list the most important **processes**:

21. Did your firm introduce any significant improvements in terms of **organizational structure or internal business routines** in 1994-1996?

¹ Yes ² No

If yes, please list the most important **improvements**:

In answering questions 19 to 21, did you have difficulty distinguishing between: (Please use information sheet)

22. **new or improved products (question 19) and new or improved processes (question 20)?**

¹ Yes ² No

23. **new processes (question 20) and organizational changes (question 21)?**

¹ Yes ² No

24. Did your firm undertake in 1996 activities (R&D, acquisition of technology, patents, trademarks, etc.) expected to result in the introduction of new or improved products and processes?

¹ yes ² no ³ do not know

25. Did your firm undertake any innovation activity during 1994-1996 that did not result in the introduction of a new or improved product or process?

¹ yes ² no ³ do not know

If yes,

a) Is it because the innovation activity is ongoing?

¹ yes ² no ³ do not know

b) Is it because the innovation activity was abandoned?

¹ yes ² no ³ do not know

2B Impact of Innovation Activity

Qualitative Impact

How did innovations (product, process and others) introduced in 1994-1996 affect your firm? Please assess the following statements based on your experience, and check box using the following scale:

26. The introduced innovations have increased :

	insignificant	slightly insignificant	moderately significant	very significant	crucial	not relevant
A. Productivity						
i) the productivity of your employees	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) the motivation of your employees	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) the productivity of your customers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
B. Product or market expansion						
i) the range of goods and services provided to your clients	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) the accessibility to your goods and services over a wider geographic area	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) your customers' quality of life	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
C. Quality of Service						
i) your ability to adapt flexibly to different customer requirements	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) the speed of supplying and/or delivering your services	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) accessibility of your services/products to your clients in terms of the number of hours	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) the user-friendliness of your services/products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
v) the reliability of your services/products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
D. Environmental impact						
i) your ability to comply with safety requirements (technical regulations, data security, etc.)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) your ability to meet ecological, medical or ergonomic requirements	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) the serviceability, durability, or recyclability of your products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
E. None of the above	1 <input type="radio"/>					

27. The introduced innovations have replaced previous products (goods and services) 1 yes 2 no 3 do not know

27a. If yes, did innovations introduced during 1994-1996 replace previous products? 1 always 2 often 3 sometimes

Quantitative Impact

28. Please report (estimate as best as you can) in percentages your operating revenue for 1994-1996 or latest year available due to:

a) <u>New products (goods and services)</u>	
b) <u>Significantly improved products (goods and services)</u>	
c) <u>Unchanged or marginally changed products (goods and services)</u>	
d) <u>Total operating revenue</u>	100%
e) <u>The year for which data reported</u>	

29. Please report (estimate as best as you can) in percentages your exports for 1994-1996 or the latest year available due to

a) <u>New products (goods or services)</u>	
b) <u>Improved products (goods or services)</u>	
c) <u>Unchanged or marginally changed products</u>	
d) <u>Total exports</u>	100%
e) <u>The year for which data reported</u>	

30. Please indicate how often your enterprise, on the average, introduce new products or processes. Please check one box below.

- More than three times a year 1
- Three times a year 2
- Twice a year 3
- Once a year 4
- Every second year 5
- Every third year 6
- More seldom than every third year 7

2C Objectives of Innovation

31. Please indicate the importance of the following objectives of your firm's innovation activities during 1994-1996. Check one box for each item using the following scale:

	insignificant	slightly insignificant	moderately significant	very significant	crucial	not relevant
A. Lower production costs by:						
i) <u>reducing unit labour costs</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) <u>cutting consumption of materials</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) <u>cutting energy consumption</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) <u>reducing product design costs</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
v) <u>reducing production lead times</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
vi) <u>other means</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
B. Replace products being phased out	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
C. Extend product range						
i) <u>within main product field</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) <u>outside main product field</u>	1	2	3	4	5	6

Continued

31. Please indicate the importance of the following objectives of your firm's innovation activities during 1994-1996. Check one box for each item using the following scale:

	insignificant	slightly insignificant	moderately significant	very significant	crucial	not relevant
D. <u>Maintain market share</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
E. <u>Increase market share</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
F. <u>Open up new markets</u>						
i) <u>new domestic target groups</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) <u>European</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) <u>USA</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) <u>Japan</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
v) <u>Other Pacific Rim (Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand and the Philippines)</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
vi) <u>other</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
G. <u>Improve production flexibility</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
H. <u>Improve product quality</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
I. <u>Improve working conditions</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
J. <u>Develop environmentally-friendly products</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
K. <u>Reduce environmental damage</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
L. <u>Other objectives; please list below:</u>						
i) _____	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) _____	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) _____	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

2D Sources of Information for Innovation

32. Please indicate the degree of importance attached to various sources. Check one box for each item.

	insignificant	slightly insignificant	moderately significant	very significant	crucial	not relevant
A. Sources internal to the enterprise:						
i) <u>In-house R&D</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) <u>Marketing</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) <u>Production</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) <u>Management</u>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
v) <u>Other</u>	1	2	3	4	5	6

Continued

32. Please indicate the degree of importance attached to various sources. Check one box for each item, using the following scale:

insignificant slightly insignificant moderately significant very significant crucial not relevant

B. External sources:

- | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| i) <u>Competitors in your line of business</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ii) <u>Acquisition of embodied technology equipment</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| iii) <u>Clients or customers</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| iv) <u>Consultancy firms</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| v) <u>Suppliers of equipment, material and components</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

C. Generally Available Information

- | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| i) <u>Government information programs</u> | 1 | 2 | 3 | 4 | 5 | 6 |
| ii) <u>Fairs, exhibitions</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| iii) <u>Professional conferences, meetings, publications</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| iv) <u>Gatherings of a social nature</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| v) <u>Patent literature</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

D. Education and research institutions

- | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| i) <u>University and other higher educational institutions</u> | 1 | 2 | 3 | 4 | 5 | 6 |
| ii) <u>Government research institutions</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| iii) <u>Private research institutions</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

33. Innovation activities in the service sector often go hand-in-hand with the introduction and/or development of new technologies. In terms of the innovation activities undertaken by your firm during 1994-1996, were the following technologies important?

A. Information and communication technologies:

- | | | | |
|---|---------------------------|--------------------------|-----------------------------------|
| i) <u>Software</u> | 1 | 2 | 3 |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| ii) <u>Computers and related hardware</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| iii) <u>High performance communication networks (e.g., broadband, ISDN)</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| iv) <u>Media related technology, e.g. CD ROM</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |

B. New developments in the area of:

- | | | | |
|---|---------------------------|--------------------------|-----------------------------------|
| i) <u>Transportation and traffic technology (e.g., vehicle, transmission technology, logistics)</u> | 1 | 2 | 3 |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| ii) <u>Measuring, control and steering technology, automation</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| iii) <u>Medical technology</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |

C. Biotechnology or food technology

- | | | | |
|---|---------------------------|--------------------------|-----------------------------------|
| i) <u>Environmental technology</u> | 1 | 2 | 3 |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |
| ii) <u>Material technology (e.g., plastics, construction materials, chemicals and light construction technologies, new materials)</u> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> do not know |

D. Other

- | | | |
|-----|----|-------------|
| 1 | 2 | 3 |
| yes | no | do not know |

2E Barriers to Innovation

34. Please indicate the degree of importance attached to various impediments by using the following scale:

	insignificant	slightly insignificant	moderately significant	very significant	crucial	not relevant
A. Risk						
i) High risk related to the feasibility of innovative projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) High risk in terms of the innovation's market success	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) Innovation easily copied by other companies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
B. Cost						
i) Innovation cost difficult to predict	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) High cost of innovation projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) Long amortization period of innovations	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
C. Availability of Inputs						
i) Lack of equity capital for implementation of innovative projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) Lack of outside capital for implementation of innovation projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) Lack of qualified personnel for innovation projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) Lack of technical equipment for innovation projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
D. Corporate Style						
i) Internal resistance to innovation	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) Long administrative/approval process for innovation projects	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
E. Others						
i) Innovation technologies not yet sufficiently well developed	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) Legislation, legal regulations affecting innovations	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iii) Innovations or innovation activities were not required because they were undertaken by associated companies (e.g. parent or subsidiary)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
iv) Innovations or innovation activities were not required because of your company's market position	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
F. Other not listed above (please specify)						
i) _____	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
ii) _____	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

2F Expenditures on Innovation

35. This section attempts to obtain your **best estimate** of your firm's expenditure (\$'000) on innovation activities for the latest year for which you can provide the data.

a) <u>Intramural R&D (excluding R&D performed for other units)</u>	1
b) <u>Extramural R&D</u>	2
c) <u>Tooling up, industrial engineering and production startup</u>	3
d) <u>Training linked to innovation</u>	4
e) <u>Marketing for new or improved products</u>	5
f) <u>Gross investment (including associated software) directly linked to introduction of new products</u>	6

2G The most important innovation

36. For the innovations listed in Section 2A, Questions 19 to 21, please provide below a brief description of your most important innovation defined by its contribution to operating revenue during 1994-1996:

36. a) Did you find it difficult to decide on the most important innovation? 1 Yes 2 No

b) If yes, please describe why

37. The novelty of this innovation lies in:
(please check applicable item; you may check more than one item)

- a) Use of new materials 1
- b) Use of new intermediate products 2
- c) New functional parts 3
- d) Use of radically new technology 4
- e) Fundamental new functions 5
- f) New production techniques 6
- g) New organizational innovations with regard to the introduction of new technologies 7
- h) New professional software developed by or specifically for you 8
- i) Other 9

38. Please list the main industries and countries that were the main supplier(s) of ideas for this innovation:

Industry Name	Country
1 <hr/>	2 <hr/>
3 <hr/>	4 <hr/>
5 <hr/>	6 <hr/>
7 <hr/>	8 <hr/>

39. How long did it take to commercialize this innovation from the time your firm first invested significant human or capital resources in it? months

40. Please list the main customers for the new good (product or service):

Industry Name	Country
1	5
2	6
3	7
4	8

41. Was this innovation:

a) a world first? 1 yes 2 no 3 do not know

b) if not, was it a Canadian first? 1 yes 2 no 3 do not know

c) a local market first? 1 yes 2 no 3 do not know

41a. If not a world first, do you know in what country it was first introduced?

a) Country name 1

b) Do not know 2

42. How long after this innovation was introduced elsewhere did your firm adopt it? months

43. Companies often pursue innovation projects in cooperation with other companies or public institutions. Here, we specifically mean cooperative ventures where both partners, in contrast to pure contract research, actively pursue joint innovative projects. Was your enterprise involved in such cooperative ventures in 1996? 1 Yes 2 No

43a. If yes in what type of cooperation were partners involved, and from where did they come? *Please check the appropriate box.*

a) Customers from manufacturing 1

b) Customers from the service sector 2

c) Suppliers 3

d) Competitor companies in the same line of business 4

e) Associated companies, companies within your corporate group 5

f) Consulting and marketing firms, private research institutions 6

g) Universities, technical colleges, professionals, academics 7

h) Other public research institutions 8

i) Other (please specify) 9

j) 10

k) 11

l) 12

44. Please indicate the effect of this innovation on the number of workers in your firm.

Worker Group	Decrease	Increase	No Change
a) Production workers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
b) Non-production workers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
c) Overall	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

45. Please indicate how the skill requirements of your workers were changed as a result of this innovation?

	Decrease	Increase	No Change
a) University graduates	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
b) College graduates	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
c) Others	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
d) Overall	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

3. R&D (Research and Development)

1. Did your firm engage in R&D activities in 1994-1996?	1 <input type="radio"/> yes	2 <input type="radio"/> no
2. Does your firm engage in R&D on a continuous or occasional basis?	1 <input type="radio"/> continuous	2 <input type="radio"/> occasional
3. Did your firm have any co-operation arrangements on R&D activities with other enterprises or institutions in 1994-1996?	1 <input type="radio"/> yes	2 <input type="radio"/> no
4. Did your firm engage in alliances for R&D purposes with other firms or organizations in 1994-1996?	1 <input type="radio"/> yes	2 <input type="radio"/> no
5. If yes, please check the type of organizations and country of partner.	Canada	Abroad
a) Clients/customers	1 <input type="radio"/>	12 <input type="radio"/>
b) Suppliers	2 <input type="radio"/>	13 <input type="radio"/>
c) Competitors	3 <input type="radio"/>	14 <input type="radio"/>
d) Joint ventures	4 <input type="radio"/>	15 <input type="radio"/>
e) Consultants	5 <input type="radio"/>	16 <input type="radio"/>
f) Other firms within group	6 <input type="radio"/>	17 <input type="radio"/>
g) Other firms	7 <input type="radio"/>	18 <input type="radio"/>
h) Government laboratories	8 <input type="radio"/>	19 <input type="radio"/>
i) Universities	9 <input type="radio"/>	20 <input type="radio"/>
j) Other (please specify)	10 <input type="radio"/>	21 <input type="radio"/>
	11 <input type="radio"/>	22 <input type="radio"/>

4. Intellectual property

1. Please indicate the extent to which the following methods have been used by your firm to protect its intellectual property in **Canada** over the last three years 1994-1996

	Number of usages (where relevant)				
	None	1 to 5	6 to 20	21 to 100	100 +
a) Copyrights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
b) Patents	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
c) Industrial design	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
d) Trade secrets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
e) Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
f) Integrated circuit designs (semi conductor chips)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
g) Plant breeders rights(plant variety rights)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
h) Other	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>

2. How effective are the following means of preventing your competitors from bringing to market copies of your new product or process technology. Please use the following scale:

Intellectual property rights associated with:	not at all effective	somewhat effective	effective	very effective	extremely effective	not relevant
a) Copyrights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Patents	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Industrial designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Trade secrets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e) Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f) Integrated circuit designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
g) Plant breeders' rights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
h) Other	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Other Strategies						
i) Complexity of product design	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
j) Being first in the market	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
k) Other	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

3. During the last three years, 1994-1996, has your firm assigned the right to use intellectual property to, or acquired the right to use intellectual property from, another firm?

1 yes 2 no

4. Please indicate the type and direction of such intellectual property transfer by checking the appropriate boxes.

	Assigned right(s) to		Acquired right(s) from	
	Canadian firms	foreign firms	Canadian firms	foreign firms
a) Copyrights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
b) Patents	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
c) Industrial designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
d) Trade secrets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
e) Trademarks	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
f) Integrated circuit designs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
g) Plan breeder's rights	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
h) Other	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>

5. Competitive environment

1. For the industry in which your firm operates, how strongly do you agree or disagree with each of the following statements? Please indicate your opinion by using the following scale where 1 is strongly disagree and 5 is strongly agree:

	disagree		neutral	agree		not applicable
	1	2	3	4	5	6
a) Consumer demand is easy to predict	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Consumers can easily substitute among competitive product	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Competitors' actions are easy to predict	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Competitors can easily substitute among suppliers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e) The arrival of new competitors is a constant threat	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f) Products quickly become obsolete	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
g) Production technology changes rapidly	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
h) Liquidation value of machinery and equipment is well below purchase cost	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

2. For the industry in which your firm operates, rate the intensity of competition among firms in the following areas, using the scale of 1 to 6, with 1 for low and 5 for high, 6 for not applicable :

	competition					not applicable
	low 1	2	3	4	high 5	6
a) Price	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Flexibility in responding to customer needs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Quality	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Customer service	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e) Customization of products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f) Offering a wide range of related products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
g) Frequently introducing new/improved products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

3. Rate the importance of each of the following factors to the ongoing success of your firm, using the scale of 1 to 6, with 1 for low and 5 for high, 6 for not applicable :

	importance					not applicable
	1	2	3	4	5	6
Technology and R&D						
a) Protecting products/processes with intellectual property rights (patents, trademarks, etc.)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) R&D capabilities	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Purchasing other technology	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Developing new/refining existing technology	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Management						
a) Consensus decision-making	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Delegating decision making	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Using information technology	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Continuous quality improvement	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Production						
a) Using high quality suppliers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Using computer controlled processes	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Reducing production times	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Improving efficiency of input (materials or services) use	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Marketing						
a) Using third party distributors	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Promoting company or product reputation	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Satisfying existing customers	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Improving position in existing markets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e) Targeting new foreign markets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f) Targeting new domestic markets	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Financing						
a) Flexibility in meeting unforeseen circumstances	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Financial management (costs, cashflow)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Finding/maintaining capital	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
Human Resources						
a) Providing incentive compensation plans	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Recruiting skilled employees	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Training	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

4. Rate the importance of each of the following factors to your firm's competitive strategy, using the scale of 1 to 6, with 1 for low and 5 for high, 6 for not applicable :

	importance					
	1	2	3	4	5	not applicable
a) Price	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b) Flexibility in responding to customer needs	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c) Quality	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d) Customer service	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e) Customization of products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f) Offering a wide range of related products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
g) Frequently introducing new/improved products	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

Comments

NOTE : Should you have questions please contact your nearest Statistics Canada regional office.

	Local	Toll Free	FAX
Montréal	283-5724	1-800-363-6720	1-514-283-7969
Sturgeon Falls	753-4888	1-800-461-1662	1-800-787-3161

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