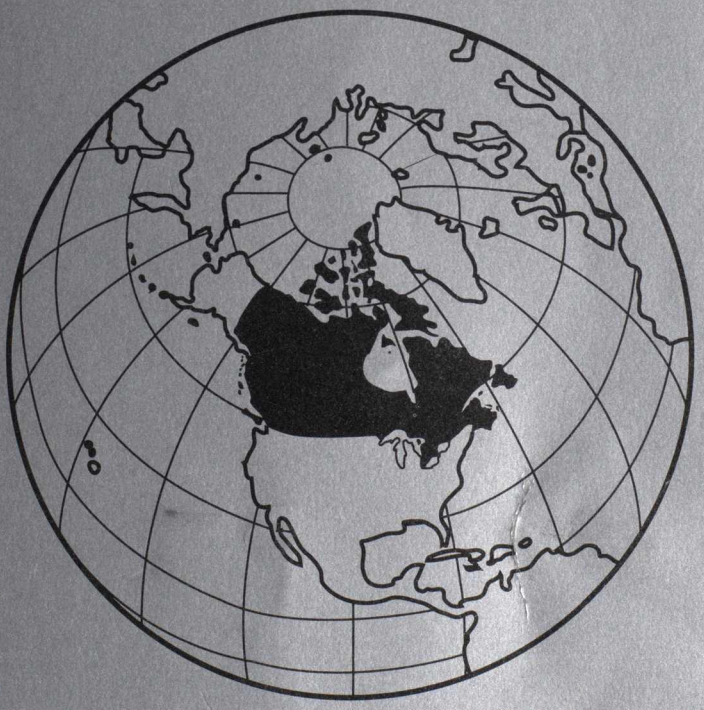
CANADA
HOUSE OF COMMONS

CANADA MUST COMPETE



Report of the Standing Committee on Industry, Science and Technology, Regional and Northern Development

Barbara J. Sparrow, M.P.
Chairman

DECEMBER 1990

CANADA MUST COMPETE

Second Report of the Standing Committee on Industry, Science and Technology, Regional and Northern Development

Barbara J. Sparrow, M.P.
Chairman

December 1990

HOUSE OF COMMONS

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Chairman: Barbara Sparrow

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Présidente: Barbara Sparrow

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Industry, Science and Technology, Regional and Northern Development

Procès-verbaux et témoignages du Comité permanent de

l'Industrie, de la Science et de la Technologie et du Développement Régional et du Nord

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RESPECTING:

Future business

Consideration of a draft report

INCLUDING:

The Second Report to the House: *Canada Must Compete*

CONCERNANT:

Travaux futurs

Étude de l'ébauche d'un rapport

Y COMPRIS:

Le deuxième Rapport à la Chambre: *Le Canada doit être compétitif*

Second Session of the Thirty-fourth Parliament, 1989-90

Deuxième session de la trente-quatrième législature, 1989-1990

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Le greffier du Comité

Christine Fisher

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REPORT TO THE HOUSE

The Standing Committee on Industry, Science and Technology,
Regional and Northern Development
has the honour to present its

SECOND REPORT

In accordance with its mandate under Standing Order 108(2), your Committee embarked on a study of a science and technology strategy. After hearing evidence and visiting universities, laboratories and industries across Canada, the Committee has agreed to report to the House as follows:

ACKNOWLEDGEMENTS

Many thanks to all the individuals and organizations who took the time to prepare a brief in response to the Committee's advertisement. All briefs, whether or not selected for personal presentation before the Committee, were carefully read and analyzed.

Thanks also to the witnesses who appeared before the Committee in Ottawa and at informal meetings during the Committee's travels in the regions. The enthusiasm and dedication of students, professors, public servants, scientists and men and women in business and industry, who shared their ideas and opinions with the Committee, created a deep and encouraging impression on all Members.

Finally, the Committee shares in the sorrow and regret of everyone who knew Dean Clay, our Research Consultant, who died on October 22, 1990. Dean's encyclopaedic knowledge of the issues discussed was of immeasurable benefit during our deliberations and his wise counsel is sorely missed. The Committee commends Ruth Fawcett and Guy Beaumier, our Research Officers from the Library of Parliament, for pulling together the many threads of the study to produce a concise and timely report.

COVER GRAPHICS ADAPTED FROM THE ROYAL SOCIETY OF CANADA'S LOGO FOR THE CANADIAN GLOBAL CHANGE PROGRAM.

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INTRODUCTION

Science and technology must be a priority! Canadian jobs depend upon greater investment in research and development. It's our future!

This is the central message impressed upon members of the House of Commons Standing Committee on Industry, Science and Technology, Regional and Northern Development during the course of the Committee's examination into science and technology in Canada. It is a message which must be recognized and understood by all Canadians.

Science and technology are increasingly important in our lives. Whether it is at home, in the office, in the fields or on the assembly lines, the revolutionary changes brought about by research and development have impacted upon everybody's lives. The pace of change has been remarkable throughout this century and as the next century approaches it is accelerating. Canadians must face the challenges brought about by these transformations. Canadians must recognize the central importance of science and technology in making their country competitive in the global marketplace.

Canada is a trading nation. Our standard of living depends directly on our ability to trade competitively in world markets. Traditionally, Canada has relied for its wealth upon its abundant supply of natural resources and a strong manufacturing sector. However, these are no longer sufficient to guarantee a strong position in an increasingly knowledge–based global economy. Many of our traditional resource products are being replaced by material substitutes or are meeting stiff competition from all nations. In the manufacturing sector, the rapid growth in the generation of value–added goods in newly industrializing nations is outstripping the ability of our producers to compete. To meet these challenges the Canadian economy will have to become more productive. This will require more innovation in the economy through the development of new products, improved production technologies, and innovative management techniques. In order to remain competitive, we must become more efficient at producing not only our traditional export goods but also at developing new knowledge–based products and services and at introducing new technology into the workplace.

Science and technology are the driving forces that allow a nation to improve its competitiveness. Research and development provide Canadians with the opportunity to develop new products, services and low cost methods of production. They are also changing the nature of our work. Different types of jobs are being created that require higher levels

of skills. Over the next 10 years nearly half of all new jobs will require up to five years of education or training beyond the high school level. Is our labour force ready? Can Canada keep pace?

Education is central in meeting this challenge. From kindergarten through university, to job training and retraining, every aspect of our educational system must work to prepare Canadians for the future. In our quest to develop a knowledge–based economy, human resources are our greatest asset and a strong educational system is the basis of that strength.

Our economy, our quality of life, our jobs, our entire future depend upon our ability to compete in the global economy. Our failure to create and develop new technology will, within the next decade, lead to a significant decline in our standard of living. The time to act is now!

Canadian attitudes must change. Across the country, Canadians must work together to create the scientific and technological foundations necessary for Canada to be competitive in the global marketplace. Only through strong alliances involving governments, educational institutions, business groups, labour organizations and communities can we hope to achieve the entrepreneurial spirit, the drive for quality, and the productivity improvements needed to seize the opportunities of the next century.

In the course of examining science and technology in Canada, Committee members received submissions and heard witnesses from across the country. Many witnesses stressed that Canada's performance of research and development is weak when compared with that of its international competitors. Dramatic efforts are needed immediately to reverse Canada's present decline and to ensure that Canadians will be able to deal with the global economic realities of the future.

Committee members believe that in the absence of such dramatic national efforts by all sectors of our economy, Canada cannot hope to reverse its present decline in global competitiveness. Future generations will be doomed to a continuing fall in our standard of living.

In light of the gravity of Canada's current position, Committee members urge both the government and private sector to make the strengthening of science and technology one of their foremost priorities.

The Committee embarked upon this examination of science and technology in Canada in order to obtain a broad understanding of the issues confronting the science community. Today, the Committee presents its principal findings and recommendations in this concise report. A detailed exposition of concerns and comments by witnesses, as originally planned, became impossible due to unforeseen circumstances.

A NATIONAL GERD OBJECTIVE

There is no simple way to assess the strength of a country's performance in science and technology. Traditionally, however, the ratio of a country's Gross Expenditures on Research and Development (GERD) to its Gross Domestic Product (GDP) has been used as one indicator of the level of scientific and technological activity. In Canada, this ratio has hovered between 1.0% and 1.5%. These figures are lower than those of most of Canada's international competitors. Therefore:

1. **The Committee recommends that the federal government set a national goal of achieving a level of Gross Expenditures on Research and Development equal to 1.9% of the Gross Domestic Product by the year 2000, and 2.5% by the year 2005.**

FEDERAL ACTIVITIES

A. Priority Allocation of Federal S&T Resources

Since a nation's GERD is in part determined by the expenditures of the federal government on science and technology activities, increasing the GERD may require additional federal expenditures. The Committee is aware of the budgetary concerns of the government, but it also recognizes that expenditures on science and technology are an investment in the future ability of the country to generate wealth. The Committee is convinced that without these investments Canada will be unable to preserve its high standard of living. Although the Committee does not advocate increasing total government expenditures, it does urge the federal government to reallocate its resources in order to strengthen selected federal science and technology programs. Several key areas have been identified by the witnesses as deserving additional federal support.

In Canada the three granting councils—the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council of Canada (SSHRC), and the Medical Research Council of Canada (MRC)—are the primary sources of funding for much of the basic research carried out in our universities. Without a strong capacity to perform basic research the country will be unable to develop and implement the technologies required to preserve its competitiveness in the coming decade.

The work of the Science Council of Canada has proven to be a worthwhile source of policy advice on both current and future science issues in Canada. Its ability to continue to provide valuable guidance on the direction of science in this country must be enhanced.

Finally, witnesses before the Committee have repeatedly praised two industrial research programs: the National Research Council's Industrial Research Assistance Program (IRAP) and the Unsolicited Proposals Program. Both programs have been extremely beneficial in enhancing Canada's industrial R&D efforts. IRAP is widely regarded to be one of the most successful federal assistance programs in terms of its efficiency in meeting its objectives and its job creation impact. The recently cancelled Unsolicited Proposals Program was very successful in stimulating industry to meet government procurement needs. In particular, it met the early capital requirements of new projects and was precisely the type of funding approach that encouraged inventors to commercialize their creations. Therefore:

2. **The Committee recommends that the federal government give consideration to the advisability of allocating its science and technology expenditures such that:**

   a) **the budgets of the three granting councils be doubled over a period of three years. The adequacy of their budgets should then be reviewed by the Minister for Science, and efforts should be made to preserve their level of funding relative to the total level of federal expenditures on R&D.**

   b) **the budget of the Science Council of Canada be restored to its former funding level of $5 million. Subsequent budgets should at least preserve this minimum level of funding in constant dollar terms.**

   c) **the IRAP budget be increased to $100 million in the fiscal year 1991–92. Subsequent budgets should at least preserve this minimum level of funding in constant dollar terms.**

   d) **the Unsolicited Proposals Program be reinstated at its prior annual level of $25 million. Subsequent budgets should at least preserve this minimum level of funding in constant dollar terms.**

B. Big Science

In view of the current federal budget restraints, the Committee is concerned that federal support for expensive scientific mega–projects will damage Canada's overall science effort. The Committee believes that federal support for science in Canada is best achieved through a broad spectrum of small programs rather than concentrating funds in a few, large, high–profile projects. Therefore:

3. **The Committee recommends that "big science" projects be considered only in the context of established criteria and priorities and that funding for such projects not be at the expense of adequate support for the basic national scientific infrastructure.**

C. Stabilization of Federal Programs

Federal activities have an important impact on the level of private investments in research and development in Canada. This influence is felt directly through the financial support that the government provides and indirectly through the many services available to the research and development sector. Many private sector research activities are planned accordingly. Wide swings in the levels of federal expenditures, high turnover rates among senior officials at Industry, Science and Technology Canada and frequent changes in program criteria make it difficult for the private sector to implement long-term research plans. The Committee believes that private sector investments in research and development would benefit from a longer term perspective on federal spending plans and less frequent changes in programs and senior staff.

4. **The Committee recommends that the federal government minimize the rate of change in its programs and staff at Industry, Science and Technology Canada to provide stability for long–term planning in the research and development sector.**

5. **In order to minimize funding uncertainty in the research community, the Committee recommends that the federal government adopt a revolving five–year science expenditure plan. This plan should be published annually.**

D. Networks of Centres of Excellence Program

The Committee is concerned that the present level of funding for the Networks of Centres of Excellence program is inadequate to permit both the maintenance of successful projects already established and the formation of new, equally important centres.

6. **The Committee recommends that the government give consideration to the advisability of expanding the Networks of Centres of Excellence program to ensure that productive, established centres can be maintained and that newly proposed centres pursuing work in Canada's strategic interest will not be denied funding.**

E. Greater Public Debate on Science Issues

If Canada is to develop an effective science policy then the work of several public agencies needs to be given greater consideration by the federal government. No single

agent in the science and technology community has all the answers to the policy problems that the country faces. However, key national agencies deserve to be taken more seriously by the federal government. Specifically, the studies of the Science Council of Canada and the reports of the National Advisory Board on Science and Technology (NABST) are seen by the public at large to contain significant observations and recommendations that are worthy of consideration by the federal government. It is difficult to assess their merit since the government does not generally acknowledge them publicly.

7. **The Committee recommends that the federal government respond publicly to Science Council of Canada reports within 90 days of their release.**

8. **The Committee recommends that the reports of the National Advisory Board on Science and Technology be tabled in the House of Commons and referred to the appropriate House of Commons Standing Committee for consideration. The principal conclusions and recommendations of NABST reports should be widely publicized.**

F. Federal Basic Research Activities

The federal government, through its agencies and departments, is a major performer of basic research in Canada. Witnesses before the Committee expressed concern over the loss of a capacity to conduct certain types of basic research that cannot be transferred to universities or the private sector. Because some of this research may be of strategic importance for Canada's future, careful consideration must be given before support for such work is withdrawn.

9. **The Committee recommends that the federal government maintain a primary role in those fields of basic research that cannot be fully maintained by the university community and in those fields of basic research of strategic importance to the nation.**

G. Coordination of Federal Science Activities

Federal science activities are carried out in many departments and agencies and cover a large number of fields of study. Although there is cooperation and collaboration among some departments and agencies on specific topics, the Committee senses that there is an overall lack of coordination of Canada's science and technology effort. At this time there is no central coordinating agent in the federal government.

10. **The Committee recommends that the federal government establish a secretariat within the Privy Council Office to coordinate federal science policy and related resource allocation across departments.**

H. The *Federal Income Tax Act*

Canadian tax incentives for research and development are among the most generous in the world but there remain problems with many provisions of the *Income Tax Act*. For example, witnesses cited income tax provisions that hinder the formation of private research consortia, that discourage investments in research buildings, and that make it difficult for newly established technology companies to recruit experienced management personnel. There are also serious concerns about the definition of research and development activities under the Act. The Committee views tax incentives as an important means of support for industrial science and technology in Canada.

11. The Committee believes that the current provisions in the *Income Tax Act* create unnecessary difficulties for scientific research by industry. The Committee therefore recommends a review of those sections of the Act that affect science and technology activities in industry; in particular a re-examination of the definitions of qualified research and development activities is needed.

FEDERAL EDUCATION INITIATIVES

A. National Council on Education

More scientists, engineers and technicians must be trained in Canada to meet the needs of a knowledge-based economy. Without these trained professionals, Canada will be unable to create or even assess the new technologies required to produce high-value products of the future. The shortage of scientists is in part the result of problems in Canada's education system in general and, more particularly, in science education. The Committee recognizes that education policy is a provincial responsibility in Canada but it sees a need to establish a national perspective on educational issues. A central forum for studying educational problems could provide such a perspective.

12. The Committee recommends the formation of an autonomous National Council on Education to perform research and provide policy advice on educational issues. The Council should be funded by all levels of government and should work closely with industry and labour organizations.

B. Government Support for Science Education

Witnesses impressed upon Committee members the need to instill a greater awareness of science in young students. Many of the choices determining future career directions

occur long before students leave high school. Elementary and high school programs must present a positive image of science careers to encourage students to continue their studies at a university or community college. The low profile accorded science and technology in Canada and the lack of interest among students in pursuing science careers must be addressed immediately. If Canada fails to create a scientifically literate labour force it will not be able to compete in the global economy.

13. The Committee recommends that the Canada Scholarships Program be accorded permanent status.

14. The Committee recommends that the government explore new initiatives to encourage science education at all levels.

C. Accreditation of Immigrant Professionals

In the next decade, Canada will face a shortage of scientists. In the past, Canada has relied upon immigration to augment its skilled labour force requirements. Yet there is increasing competition for trained professionals from other countries experiencing similar shortages. In Canada the problem is intensified since employers and licensing bodies are often reluctant to recognize the professional credentials of many skilled immigrants.

15. The Committee recommends that governments seek to eliminate artificial barriers that prevent this country from utilizing the skills of landed immigrants.

FEDERAL INTELLECTUAL PROPERTY RIGHTS

A. Federal Claims on Subsidized Research and Development

The Committee is concerned that Canada loses significant benefits of research and development when rights to the resulting intellectual property are sold to non–indigenous companies. ['Indigenous' refers to a firm whose strategic planning, marketing, research and development, and head office functions for their core products are directed from a Canadian base; the firm may or may not be Canadian–owned.] The Committee believes that federal support for R&D entitles the government to claim some part of the intellectual property rights resulting from the subsidized work.

16. The Committee recommends that the federal government be indemnified for the sale of or transfer to non–indigenous firms of any intellectual property resulting from direct federal contributions to research and development.

B. Federal Ownership of Intellectual Property Rights

Intellectual property is an important outcome of research and development. Its commercialization benefits the Canadian economy in many ways. But commercializing publicly-owned intellectual property can be difficult, either because no appropriate mechanism exists for transferring the technology from government laboratories into the marketplace, or because of a lack of agreement over the appropriate role of the public and private sector in commercializing these discoveries.

17. The Committee recommends that the federal government retain ownership of intellectual property developed or fully funded by it and that it develop clear guidelines for the management and control of intellectual property rights.

FEDERAL GOVERNMENT SUPPORT OF BUSINESS RESEARCH AND DEVELOPMENT

Like many modern countries, Canada provides support for industrial research and development. The Committee believes that this support is important in order to improve the country's competitive position; however, the Committee is concerned that the level of support be appropriate and not excessive.

18. The Committee recommends that the federal government's financial support for industrial research and development be maintained at a level of 25% of total business expenditure on research and development.

The ability of Canadian firms to compete effectively in the global economy will depend in part on the extent to which they develop their scientific, technological and marketing skills.

19. In the face of increasing global competition that is based on technological advancements, the Committee recommends that the federal government encourage the development of greater scientific, technological and marketing skills within the industrial sector of Canada.

A. Pre-Competitive Research Consortia

Pre-competitive research involves significant risks. Many firms do not possess the resources to undertake such work on their own. As a result, attempts are made to form consortia to share the risk and subsequent benefits of this work. Witnesses have expressed concern that current tax provisions hinder the formation of pre-competitive consortia in Canada.

20. The Committee recommends that the federal government continue to support the creation of industrial pre-competitive research consortia and recommends that it eliminate tax provisions that hinder the financial viability of such consortia.

B. Marketing Assistance for Small Enterprises

Small firms do not possess the resources to undertake major marketing efforts in foreign countries. However, it might be possible for two or more firms to pool their resources in an effort to penetrate foreign markets. The federal government could be of immense help in such endeavours. The Committee believes that the pre-competitive consortia experience can serve as a useful model for enhancing the international competitive capabilities of small and medium-sized firms in Canada.

21. The Committee recommends that the federal government give consideration to the feasibility of establishing joint government/industry consortia to enhance the international marketing capabilities of small and medium-sized, indigenous, high-value-added industrial firms.

FEDERAL PROCUREMENT POLICIES

Federal procurement policies are a valuable instrument for encouraging private sector research and development. These policies can also be an effective means of fostering regional R&D capabilities. Witnesses before the Committee explained that government purchases greatly assist newly established innovation companies to become commercially viable. Such purchases provide new innovative firms with practical experience in dealing with customer technology requirements and reduce the risk associated with the introduction of new products into the marketplace.

22. The Committee recommends that the federal government expand the mandate of its procurement policy to include a greater support of industrial science and technology activities, the development of innovation in the economy and of new business formation, and the promotion of greater regional equity in the country.

A. Council on Procurement

The Committee believes that the anticipation of federal technological requirements is essential for the effective use of procurement policies. Decisions concerning these requirements must be made by determining the needs of appropriate government departments on a regular basis.

23. The Committee recommends that the federal government create a Council on Procurement to support enabling technology development by indigenous firms in areas of preferential Canadian technological strength where government purchasing could foster the development of world-class Canadian products.

24. The Committee further recommends that the operational departments be encouraged to develop ten to fifteen-year plans in consultation with industry for mission-oriented research and development necessary to meet their operational procurement needs.

TECHNOLOGY TRANSFER AND DIFFUSION

Research and development are essential if Canada is to compete in a knowledge-based global market. However, the benefits of R&D are lost if the resultant technology is not commercialized and made widely available throughout the country. The rate of technology diffusion is an important determinant of the rate of growth in productivity. Those regions slow to adopt new technology will experience lower productivity and hence reduced income levels.

25. The Committee recommends that the federal government facilitate technology transfer throughout the country by such means as a National Technology Information Network; enhanced technological personnel exchange among government, industry and the universities; government-industry sponsored technology centres; etc.

COMMUNITY INITIATIVES

The rate of technology diffusion in Canada greatly depends on the ability of individual communities to adopt new technology. A number of factors affects the ability of communities to select, use, create, market, and manage new technologies. A joint study of the Science Council, the Canadian Advanced Technology Association and the Canadian Chamber of Commerce, entitled "Firing Up the Technology Engine", outlines elements of an effective community innovation-management system. This type of participation by local communities must be encouraged by all levels of government.

26. The Committee recommends that the federal government encourage efforts to develop community economic development strategies designed to enhance the application of science and technology by local business and industry.

SCIENCE AND TECHNOLOGY ASSISTANCE IN REMOTE AND NORTHERN COMMUNITIES

Despite remarkable advances in communication technology, small innovative firms in remote regions of the country still face a high degree of difficulty in obtaining skilled labour, information on new technology, material inputs, and capital. In Canada's northern territories these problems are exacerbated by severe climatic conditions and a lack of appropriate testing facilities.

27. The Committee recommends that, to assist entrepreneurs in remote and northern communities, the federal government encourage the development of scientific and technical skills within the local labour force, and that it strengthen and broaden the IRAP network, especially in the North.

28. The Committee recommends that the federal government provide greater opportunity for residents of northern communities to participate actively and to contribute their knowledge in the formulation of national science policy and in the elaboration of any guidelines regarding the adoption of technologies in the North.

29. The Committee believes that the technologies developed by northern entrepreneurs require greater federal support during the commercialization process. The Committee recommends that the government assist the northern business community in developing export markets for their technology. Special attention should be paid to the newly developing opportunities in Siberia.

REGULATORY OBSTACLES TO INNOVATION

The regulatory system can be a serious impediment to the commercialization of inventions. While some regulation is necessary, for example for health and safety reasons, the process of obtaining regulatory approval should not in itself cause the demise of a new product.

30. The Committee recommends that the government re-examine the process for application of industrial and government-imposed regulatory standards to ensure that their application does not pose an unwarranted barrier to the timely marketing of new products.

VENTURE CAPITAL AND INTEREST RATES

Many firms find it difficult to obtain venture capital to develop and market innovations. Witnesses expressed concern that the apparent lack of venture capital for

small high-tech companies may not be due to a lack of funds in the financial markets but to a lack of experience on the part of lenders and investors in assessing the needs of technological entrepreneurs. A related concern is the high level of interest rates, which has a direct impact on business investment decisions. In periods of high interest rates, many potentially worthwhile innovations are abandoned because of the high cost of capital. This is not restricted to individual investors but affects small and large corporations alike. Without these investments, the country cannot develop high-value products for export.

31. In light of the numerous problems that technology companies face in raising venture capital, the Committee recommends that the federal government undertake a study of the venture capital market to determine ways of improving access to this market for new technology companies.

LIST OF RECOMMENDATIONS

1. **The Committee recommends that the federal government set a national goal of achieving a level of Gross Expenditures on Research and Development equal to 1.9% of the Gross Domestic Product, by the year 2000, and 2.5% by the year 2005.**

2. **The Committee recommends that the federal government give consideration to the advisability of allocating its science and technology expenditures such that:**

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25. The Committee recommends that the federal government facilitate technology transfer throughout the country by such means as a National Technology Information Network; enhanced technological personnel exchange among government, industry and the universities; government–industry sponsored technology centres; etc.

26. The Committee recommends that the federal government encourage efforts to develop community economic development strategies designed to enhance the application of science and technology by local business and industry.

27. The Committee recommends that, to assist entrepreneurs in remote and northern communities, the federal government encourage the development of scientific and technical skills within the local labour force, and that it strengthen and broaden the IRAP network, especially in the North.

28. The Committee recommends that the federal government provide greater opportunity for residents of northern communities to participate actively and to contribute their knowledge in the formulation of national science policy and in the elaboration of any guidelines regarding the adoption of technologies in the North.

29. The Committee believes that the technologies developed by northern entrepreneurs require greater federal support during the commercialization process. The Committee recommends that the government assist the northern business community in developing export markets for their technology. Special attention should be paid to the newly developing opportunities in Siberia.

30. The Committee recommends that the government re–examine the process for application of industrial and government imposed regulatory standards to ensure that their application does not pose an unwarranted barrier to the timely marketing of new products.

31. In light of the numerous problems that technology companies face in raising venture capital, the Committee recommends that the federal government undertake a study of the venture capital market to determine ways of improving access to this market for new technology companies.

LIST OF WITNESSES

APPENDIX A

	ISSUE NO.	DATE
Royal Society of Canada Digby McLaren, President	15	October 31, 1989
The Institute for Research on Public Policy David Runnalls, Associate Director, Environment and Sustainable Development Program	16	November 20, 1989
Industry, Science and Technology Canada Henri C. Rothschild, Director General, Technology Policy Branch	17	November 27, 1989
PRECARN Associates Inc. Arthur Collin	18	December 4, 1989
Canadian Institute for Advanced Research (CIAR) Dr. Fraser Mustard, President	19	December 5, 1989
INCO Limited Roy Aitken, Executive Vice-President	21	February 6, 1990
Information Technology Association of Canada Graeme Hughes, President; John Roth, Executive Vice-President, Product Line Management, Northern Telecom Limited; Maurice Tavares, Vice-President, Manufacturing, Engineering and Distribution, Digital Equipment of Canada; Grant Murray, Vice-President, Corporate Relations, IBM Canada Limited.	22	February 8, 1990

	ISSUE NO.	DATE
Doyletech Corporation Denzil Doyle, President	23	February 12, 1990
Canadian Advanced Technology Association (CATA) Roy Woodbridge, President	24	February 13, 1990
Individual presentations Prof. James Gillies, York University Prof. Gilles Paquet, University of Ottawa	25	February 15, 1990
Canadian Space Agency Dr. Larkin Kerwin, President; Laurent Bergeron, Executive Vice-President; Mac Evans, Vice-President, Operations; Dr. Garry M. Lindberg, Vice-President, Corporate Services and Research.	26	February 20, 1990
Hydro-Québec Dr. Hughes St-Onge, Director, Technology Planning, Technology and International Affairs	27	March 6, 1990
Ontario Hydro Dr. Donald Mills, Director of Research	28	March 8, 1990
The Fields Institute for Research in Mathematics Professor Victor Snaith, Chairman, Fields Institute Committee Professor William Shadwick, University of Waterloo	29	March 13, 1990
Natural Sciences and Engineering Research Council Dr. Arthur May, President; Elaine Isabelle, Director, Inter-Council Program Directorate, Networks of Centres of Excellence.	30	March 15, 1990

	ISSUE NO.	DATE
Canadian Association of University Teachers	30	March 15, 1990
Professor Pamela Smith, President (University of Regina); Professor Peter King, Past President, (University of Manitoba).		
Canadian Institute for Research in Regional Development	31	March 20, 1990
Dr. Rodolphe Lamarche, Associate Researcher		
Atlantic Provinces Economic Council	32	March 21, 1990
Dr. Timothy J. O'Neill, President; Arthur J. O'Connor, Vice-Chairman, New Brunswick Board of Governors.		
Newfoundland and Labrador Science and Technology Advisory Council	33	March 22, 1990
Dr. Les Hulett, Executive Director; Rex Parsons, Councillor (President, Newfoundland Design Associates); Dr. Christopher Campbell, Councillor (Vice-President, Applied Technology, Newfoundland and Labrador Institute of Fisheries and Marine Technology).		
Canadian Council of Professional Engineers	34	March 27, 1990
Kenneth F. Williams, President; John McDougall, President-Elect; Donald Laplante, Executive Director.		
Canadian Council of Technicians and Technologists		
C. Charles Brimley, Executive Director		
Canadian Homebuilders' Association	35	March 29, 1990
Willis Graham, Chairman, Technical Research Committee; Robert Sloate, Director, Technical Research; Gordon Thompson, President, (President, Candex Ltd., Toronto); Dr. John Kenwood, Chief Executive Officer.		

	ISSUE NO.	DATE
Individual presentation	35	March 29, 1990
William F. McGarrity, Forest Products Industry Consultant		
Confederation of Canadian Faculties of Agriculture and Veterinary Medicine	36	April 3, 1990
Dr. Roger B. Buckland, President (Vice Principal, Macdonald College of McGill University, Dean, Faculty of Agricultural and Environmental Sciences); Dr. Gavin F. Hamilton, Vice-President (Dean, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon).		
Canadian Agricultural Research Council		
Dr. H.F. McRae, Chairman; Bill Blackburn, Member; Dr. D.R. Ridley, Member of the Executive Council.		
Social Science Federation of Canada	37	April 5, 1990
Dr. Steen B. Esbensen, Executive Director (Professor, Université du Québec à Hull); Dr. Michel Allard, President (Professor, Université du Québec à Montréal); John Finlay, President-Elect, (Dean of Arts, University of Manitoba).		
Association of Canadian Community Colleges		
Richard Mackie, President (President, Assiniboine Community College); Tom Norton, Executive Director; Terry Anne Boyles, Director of National Services; Gil Johnson, Member (Southern Alberta Institute of Technology); Yves Sanssouci, Past President (General Director, Collège Edouard-Montpetit).		
Individual presentation	38	April 10, 1990
Professor Michael Bradfield, Department of Economics, Dalhousie University		

	ISSUE NO.	DATE
Canadian Industrial Innovation Centre/Waterloo	38	April 10, 1990
Dr. Frank Maine, Chairman of the Board; Gordon Cummer, Chief Executive Officer; David Talbot, Member of the Board; Herb Lapierre, Member of the Board.		
Science Council of Canada	40	April 23, 1990
Dr. Geraldine Kenney-Wallace, Chairman; Dr. Guy Steed, Director of Programs; Gene Nyberg, Corporate Secretary and Director of Communications.		
Individual presentation	41	April 25, 1990
Dr. Gerhard Herzberg, Nobel Laureate		
NOVA Corporation of Alberta	42	April 26, 1990
G. Firman Bentley, Senior Vice-President; Gerry Finn, Director Government Relations; George B. Miller, Vice-President; Robert W. Betty, Ph.D., Director Technology Management Office.		
Canadian Federation of Biological Societies	50	June 5, 1990
Dr. Mark Bisby, President; Dr. Jeremy McNeil, Member; Dr. Clarence Madhosingh, Member; Dr. Clément Gauthier, Responsible for Science Policy.		
Aerospace Industries Association of Canada	51	June 7, 1990
C. Bryan Smith, Vice President, Operations; Dr. Alan Smith, Chairman, Research and Development Committee; Levon Markaroglu, Researcher; Ron Clifton, Director, Special projects (Computing Devices Company); Denise Faguy, Director of Communications.		

	ISSUE NO.	DATE
Science Council of Canada	52	June 12, 1990
Dr. Geraldine Kenney-Wallace, President		
Canadian Advanced Technology Association		
Roy Woodbridge, President		
Canadian Chamber of Commerce		
James Hunt, Chairman, Research and Development		
Orpwood Associates Inc.	53	June 14, 1990
Graham Orpwood, Professor of Science Education, New York University		
Canadian Association for Science Education		
Paul Barron, President		

LIST OF BRIEFS RECEIVED APPENDIX B

ABI Biotechnology Inc., Winnipeg, Man.
Acadia University, New Initiatives Committee
Aerospace Industries Association of Canada
Allied–Signal Aerospace Canada, Montreal, P.Q.
Association of Canadian Community Colleges
Association of Provincial Research Organizations
Association of Universities & Colleges of Canada
Atlantic Provinces Economic Council
Atlantic Veterinary College, University of Prince Edward Island
British Columbia Regional and Economic Development Ministry
Business Council of British Columbia
Canadian Advanced Technology Association
Canadian Aeronautics and Space Institute
Canadian Agricultural Research Council
Canadian Association of University Teachers
Canadian Association of Professional Engineers
Canadian Council of Professional Engineers
Canadian Council of Technicians and Technologists
Canadian Federation of Biological Societies
Canadian Federation of Students
Canadian Home Builders' Association
Canadian Industrial Innovation Centre, Waterloo
Canadian Institute for Advanced Research
Canadian Institute for Research in Regional Development (University of Moncton)
Canadian Space Agency
Centre for Cold Ocean Resources Engineering (C–CORE) (Memorial University)
The Chemical Institute of Canada
The Chemical Institute of Canada (Catalysis Division)

Colwell, Boyde

Cowie, W.E.

Dalhousie University (Donald D. Betts, Dean of Science; Michael Bradfield, Dept. of Economics; Derek W. Jones, Biomaterials; Mary Anne White, Dept. of Chemistry)

Doyletech Corporation, Kanata, Ont.

EBA Engineering Consultants Ltd., Edmonton, Alta.

Environment Canada

Ferguson Simek Clark, Engineers & Architects, Yellowknife, N.W.T.

Fields Institute for Research in Mathematics (McMaster University)

Fyfe, Dean William, University of Western Ontario

Gillies, James (York University)

Gregory Geoscience Ltd., Ottawa, Ont.

Hydro-Québec

Inco Limited

Information Technology Association of Canada

Institute for Aerospace Studies (University of Toronto)

Institute for Research on Public Policy

Integrated Wood Research Inc., Agincourt, Ont.

International Submarine Engineering, Port Coquitlam, B.C.

Janakiraman C. (Raman), Calgary, Alta.

Kirkby, Peter, Islington, Ont.

Macdonald College of McGill University

Manitoba Industry, Trade and Tourism

Marsh & McLennan Ltd., Toronto, Ont.

Martin Associates, Architects, Toronto, Ont.

McArthur, Bob, Toronto, Ont.

McCarthy & McCarthy (David M. Robinson), Toronto, Ont.

McGarrity, W.F., Huntsville, Ont.

Memorial University of Newfoundland

National Consortium of Scientific and Educational Societies

National Research Council of Canada

Natural Sciences and Engineering Research Council of Canada

New Democratic Party, Nova Scotia

Newfoundland and Labrador Science and Technology Advisory Council

Nexus Engineering Corp., Burnaby, B.C.
NorthwesTel
NOVA Corporation of Alberta
Ontario Hydro
Ontario Institute for Studies in Education
Orpwood Associates Inc.
Paquet, Gilles (University of Ottawa)
People Development Ltd., Halifax, N.S.
PRECARN Associates Inc., Nepean, Ont.
Professional Institute of the Public Service of Canada
Remppel Research and Technologies Inc., Canmore, Alta.
Riendeau, Michel, Montreal, P.Q.
Royal Society of Canada
Saskatchewan Research Council
Science Council of British Columbia
Science Council of Canada
Science Institute of the Northwest Territories
Social Science Federation of Canada
Society of AmericanValue Engineers
Stepp, Math, Moosejaw, Sask.
St–Mildred's–Lightbourn School, Oakville, Ont.
Stockdale, P.H.G., Lethbridge, Alta.
Tavenas, François (McGill University)
Thurber Engineering Ltd., Yellowknife, N.W.T.
Tomorrow's Professionals, Brossard, P.Q.
University of British Columbia
Université de Moncton
Université de Sherbrooke (Prof. Petr Hanel)
University of Waterloo (Prof. H.W. Kerr)
University of Western Ontario, Department of Applied Mathematics
Winegard, Hon. William C.
World Open University

SITES VISITED

APPENDIX C

Ottawa, Ontario

National Research Council of Canada

Montreal, Quebec

Hydro–Québec
École Polytechnique

St–John's, Newfoundland

Newfoundland and Labrador Science and Technology Advisory Council
Ultimateast Data Communications Ltd.
Centre for Cold Ocean Resource Engineering (C–CORE)
Institute for Marine Dynamics
Seabright Corporation
Instrumar

Charlottetown, Prince Edward Island

Atlantic Veterinary College
P.E.I. Energy Corporation, Charlottetown District Heating Systems
Diagnostic Chemicals

Nova Scotia

Dalhousie University
The Bedford Institute of Oceanography
Acadia University, Wolfville
Kentville Agricultural Research Station

Moncton, New Brunswick

University of Moncton, Canadian Institute for Research in Regional Development
Atlantic Canada Opportunities Agency
Datacor Atlantic Inc.
Lexi–Tech

Edmonton, Alberta

National Forum of Science and Technology Advisory Councils

Yellowknife, Northwest Territories

Science Institute of the Northwest Territories
Remote Sensing Centre
Ferguson Simek Clark
Tuaro Dairy Corp.

Calgary, Alberta

Western Economic Diversification : inter-departmental presentations
EDO (Canada) Ltd.
University of Calgary
Pelorus Navigation Ltd.

Vancouver, British Columbia

University of British Columbia TRIUMF Project
Western Economic Diversification : university/departmental presentations
Forintek/FERIC
Watercraft Offshore Canada Ltd.
Ballard Battery Systems

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, your Committee requests that the Government table a comprehensive response to the Report within 150 days.

A copy of the relevant Minutes of Proceedings and Evidence of the Standing Committee on Industry, Science and Technology, Regional and Northern Development (Issues 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 50, 51, 52, 53 and 54 which includes this Report) is tabled.

Respectfully submitted,

BARBARA J. SPARROW
Chairman

MINUTES OF PROCEEDINGS

TUESDAY, JUNE 19, 1990
(61)

[*Text*]

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:40 o'clock a.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Clément Couture, Nic Leblanc, John Manley, Howard McCurdy, Guy Ricard and Barbara Sparrow.

In attendance: Dean Clay, Research Consultant; *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

The Committee considered its future business.

At 10:50 o'clock a.m., the Committee adjourned to the call of the Chair.

TUESDAY, SEPTEMBER 25, 1990
(62)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* in 9:08 o'clock a.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Jack Anawak, Bill Casey, Clément Couture, Howard McCurdy, Brian O'Kurley, Rey Pagtakhan, Barbara Sparrow, and Jacques Vien.

Acting Member present: David Berger for John Manley.

In attendance: Dean Clay, Research Consultant. *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 10:50 o'clock a.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 2, 1990
(63)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:40 o'clock p.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Nic Leblanc, Howard McCurdy, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Members present: David Berger for John Manley, Sheila Copps for Jim Peterson, Murray Dorin for Brian O'Kurley and Charles Langlois for Clément Couture.

In attendance: Dean Clay, Research Consultant. *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 5:10 o'clock p.m., the Committee adjourned to the call of the Chair.

WEDNESDAY, OCTOBER 3, 1990
(64)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:43 o'clock p.m. this day, in Room 208, West Block, the Vice–Chairman, Guy Ricard, presiding.

Members of the Committee present: Jack Anawak, David Bjornson, Bill Casey, Howard McCurdy, Guy Ricard and Jacques Vien.

Acting Members present: Edna Anderson for Brian O'Kurley, David Berger for Rey Pagtakhan, Sheila Copps for John Manley.

In attendance: Dean Clay, Research Consultant. *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 4:55 o'clock p.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 9, 1990
(65)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:36 o'clock p.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Bill Casey, Howard McCurdy, Brian O'Kurley, Rey Pagtakhan, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Members present: David Berger for John Manley, Sheila Copps for Jack Anawak, Barry Moore for Clément Couture.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 4:55 o'clock p.m., the Committee adjourned to the call of the Chair.

WEDNESDAY, OCTOBER 10, 1990
(66)

The Standing Committee on Industry, Science and Technology, Regional and Northern Devleopment met *in camera* at 3:40 o'clock p.m., this day, in Room 307, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Jack Anawak, David Bjornson, Bill Casey, Howard McCurdy, Brian O'Kurley, Guy Ricard and Barbara Sparrow.

Acting Members present: Yvon Côté for Clément Couture, Ken Monteith for Jacques Vien.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 5:15 o'clock p.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 16, 1990
(67)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:27 o'clock p.m., this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Brian O'Kurley and Barbara Sparrow.

Acting Members present: Francis LeBlanc for Jack Anawak, Greg Thompson for Bill Casey, Scott Thorkelson for Jacques Vien.

Other Member present: Harry Brightwell.

In attendance: Dean Clay, Consultant. *From the Library of Parliament* : Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 5:05 o'clock p.m., the Committee adjourned to the call of the Chair.

WEDNESDAY, OCTOBER 17, 1990
(68)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:55 o'clock p.m., this day, in Room 209, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Howard McCurdy, Brian O'Kurley, Guy Ricard and Barbara Sparrow.

Acting Members present: Edna Anderson for Clément Couture, David Berger for Jim Peterson, Ron MacDonald for Jack Anawak.

In attendance: Dean Clay, Consultant. *From the Library of Parliament* : Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 5:10 o'clock p.m., the Committee adjourned to the call of the Chair.

TUESDAY, OCTOBER 30, 1990
(69)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:10 o'clock a.m. this day, in Room 307, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Clément Couture, Howard McCurdy, Brian O'Kurley, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Members present: Peter McCreath for Bill Casey, Robert Nault for Jack Anawak and Walter Van De Walle for David Bjornson.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 11:05 o'clock a.m., the Committee adjourned to the call of the Chair.

THURSDAY, NOVEMBER 1, 1990
(70)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:10 o'clock a.m., this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Jack Anawak, Bill Casey, Howard McCurdy, Brian O'Kurley, Jim Peterson, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Member present: John Cole for David Bjornson.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 11:00 o'clock a.m., the Committee adjourned to the call of the Chair.

TUESDAY, NOVEMBER 6, 1990
(71)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:30 o'clock a.m. this day, in Room 307, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Jack Anawak, David Bjornson, Bill Casey, Clément Couture, Howard McCurdy, Brian O'Kurley, Guy Ricard, Barbara Sparrow and Jacques Vien.

Other Member present: Gilles Rocheleau.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 11:00 o'clock a.m., the Committee adjourned to the call of the Chair.

THURSDAY, NOVEMBER 8, 1990
(72)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:40 o'clock a.m., this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Clément Couture, Howard McCurdy, Brian O'Kurley, Rey Pagtakhan, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Member present: David Berger for Jim Peterson.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 10:55 o'clock a.m., the Committee adjourned to the call of the Chair.

MONDAY, NOVEMBER 19, 1990
(73)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 3:43 o'clock p.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Clement Couture, Howard McCurdy, Rey Pagtakhan, Barbara Sparrow and Jacques Vien.

Other Member present: Dorothy Dobbie for Brian O'Kurley.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 5:25 o'clock p.m., the Committee adjourned to the call of the Chair.

TUESDAY, NOVEMBER 20, 1990
(74)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:45 o'clock a.m. this day, in Room 208, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: Bill Casey, Clément Couture, Howard McCurdy, Brian O'Kurley, Rey Pagtakhan, Guy Ricard, Barbara Sparrow and Jacques Vien.

Other Member present: David Berger for Jack Anawak.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

At 10:55 o'clock a.m., the Committee adjourned to the call of the Chair.

TUESDAY, DECEMBER 4, 1990
(75)

The Standing Committee on Industry, Science and Technology, Regional and Northern Development met *in camera* at 9:40 o'clock a.m. this day, in Room 306, West Block, the Chairman, Barbara Sparrow, presiding.

Members of the Committee present: David Bjornson, Bill Casey, Clément Couture, Howard McCurdy, Brian O'Kurley, Guy Ricard, Barbara Sparrow and Jacques Vien.

Acting Member present: Ken Monteith for Jacques Vien.

In attendance: *From the Library of Parliament*: Guy Beaumier and Ruth Fawcett, Research Officers.

In accordance with its mandate under Standing Order 108(2), the Committee resumed consideration of a draft report of a science and technology strategy.

It was agreed, — That the draft report, as amended, be adopted as the Committee's Second Report to the House and that the Chairman be authorized to make such typographical and editorial changes as may be necessary without changing the substance of the report and that the Chairman be instructed to present the said report to the House.

It was agreed, — That the Committee print 3,000 copies of its Second Report to the House in tumble bilingual format with a distinctive cover.

It was agreed, — That pursuant to Standing Order 109, the Committee request that the Government table a comprehensive response to its Second Report.

It was agreed, — That the title of the Committee's Second Report to the House shall be, *Canada Must Compete*.

At 10:00 o'clock a.m., the Committee adjourned to the call of the Chair.

Christine Fisher
Committee Clerk