Innovation and Learning Opportunities for Canadians



A GUIDE TO PROGRAMS AND SERVICES

This publication is available upon request in multiple formats. Contact the Information Distribution Centre at the numbers listed below.

Information Distribution Centre Communications and Marketing Branch Industry Canada Room 268D, West Tower 235 Queen Street Ottawa ON K1A 0H5

Tel.: (613) 947-7466 Fax: (613) 954-6436

E-mail: publications@ic.gc.ca

Aussi offert en français sous le titre Des possibilités d'innovation et d'apprentissage pour les Canadiens — Guide des programmes et services.

Permission to Reproduce

Except as otherwise specifically noted, the information in this publication may be reproduced, in part or in whole and by any means, without charge or further permission from Industry Canada, provided that due diligence is exercised in ensuring the accuracy of the information reproduced; that Industry Canada is identified as the source institution; and that the reproduction is not represented as an official version of the information reproduced, nor as having been made in affiliation with, or with the endorsement of, Industry Canada.

For permission to reproduce the information in this publication for commercial redistribution, please e-mail: copyright.droitdauteur@communication.gc.ca

Cat. No. lu4-34/2003E-IN ISBN 0-662-33888-X 53899B

Contents

Introduction / 2

Canada's Innovation Strategy / 2

Opportunities for Students and

Researchers / 3

Building Innovative Communities / 5

Business Planning and Development / 7

Canadian Innovators / 10

Web Site Addresses / 13

Innovation and Learning Opportunities

Innovation and Learning Opportunities for Canadians



A GUIDE TO PROGRAMS AND SERVICES

Introduction

The Government of Canada is committed to helping Canadians benefit from the new global economy and has a wealth of programs to promote innovation and learning.

Do you need training to help you do your job more effectively, or to get a new and better job? Would you like to start your own business or improve the way your current one works? Are you looking for assistance to further your education? If you answered "yes" to any of these questions, then reading this brochure is a good way to start. It introduces the Government of Canada's many programs in the areas of innovation and learning.

To find out more, visit any of the Web sites listed on pages 13 to 18 of this brochure, or call 1 800 O-Canada (1 800 622-6232; TTY/TDD 1 800 465-7735).

Canada's Innovation Strategy

Increasing Canada's innovation capacity and creating a culture of innovation and learning is at the heart of *Canada's Innovation Strategy*. The 10-year plan involves the public, private and non-profit sectors. The results will be a more competitive Canada in the global marketplace and a better quality of life for Canadians.

Innovation and learning hold the key to Canada's future prosperity and its place in the world. With constant innovation and ingenuity to move Canada forward, we will secure our place in the knowledge-based economy.

To find out more about *Canada's Innovation Strategy* and Canadian innovators, visit www.innovationstrategy.gc.ca

Opportunities for Students and Researchers

Lifelong learning is about ensuring that Canada has the skilled and experienced labour force it needs to succeed in the knowledge-based economy of the 21st century.

The Government of Canada has a number of programs to help students and researchers pursue their dreams — turning new ideas into new opportunities across the country.

■ Agriculture and Agri-Food Canada runs a network of 19 research centres across Canada covering the spectrum of agri-food research and development. Through collaborative research projects, industry can work with some of the world's best scientists and access state-of-the-art labs and equipment.

- The Canada Foundation for Innovation is investing hundreds of millions of dollars to strengthen the capability of Canadian universities, colleges, research hospitals, and other not-for-profit institutions to carry out world-class research and technology development. By investing in research infrastructure projects, the CFI supports research excellence, and helps strengthen research training at institutions across Canada.
- The Government of Canada established the Canada Millennium Scholarship Foundation and the Pierre Elliott Trudeau Foundation to help Canada's best and brightest students pursue post-secondary educational opportunities. Both organizations offer scholarships and fellowships to motivated students.
- The Canada Research Chairs Program is establishing 2000 chairs, enabling Canadian universities to achieve the highest levels of research excellence by attracting and retaining excellent researchers who, in turn, will train the next generation of Canadian innovators.

- The 13 virtual Canadian Institutes of Health Research link and support health researchers as they work to create new knowledge and turn it into improved health for Canadians.
- Genome Canada is the primary source of funding and information in the field of genomics in Canada. Genome Canada supports research in the key areas of agriculture, bioinformatics, environment, fisheries, forestry, health and technology development. Genome Canada also supports research projects aimed at studying and analyzing the ethical, environmental, economic, legal and social issues related to genomics research.
- The Natural Sciences and Engineering Research Council of Canada and the Social Sciences and Humanities Research Council of Canada support university-based research and provide grants and fellowships to students at the undergraduate to post-doctoral levels.

- The Networks of Centres of Excellence (NCE) connect academic researchers with industrial know-how to turn new ideas into products for the marketplace. The NCEs provide strategic investments to support research, training and employment for students.
- The Science and Technology Internship Program provides an opportunity for recent graduates in science, engineering or business to gain relevant work experience on innovative projects with government departments such as Natural Resources Canada (NRCan) and Fisheries and Oceans Canada.

To find out more, go to the last pages of this brochure, which contain Web addresses for these innovation and learning programs. You may also call 1 800 O-Canada (1 800 622-6232; TTY/TDD 1 800 465-7735).

Building Innovative Communities

The community is at the heart of *Canada's Innovation Strategy*. The Government of Canada promotes innovation in communities through its regional development agencies, organizations and targeted initiatives.

- The Aboriginal Canada Portal provides details of services and programs of interest to Aboriginal people and communities wishing to capitalize on their natural resources. The portal offers access to listings of Aboriginal associations, businesses, organizations and communities.
- The Atlantic Canada Opportunities Agency works to improve the economy of communities in Atlantic Canada through the successful development of business and job opportunities. Of particular note is the Atlantic Innovation Fund, which is designed to accelerate the development of knowledge-based industries.

- The Broadband for Rural and Northern Development
 Pilot Program will use a competitive process to support the
 deployment of innovative and sustainable broadband (highspeed Internet) services to Canadian communities that
 currently have no high-speed Internet access. Priority will be
 given to unserved First Nation, northern, remote and rural
 communities.
- Canada Economic Development for Quebec Regions has offices throughout Quebec that support the development of small and medium-sized businesses and help them innovate, compete and export. For example, the Multimedia Experimentation Fund offers support to multimedia projects in their pre-start-up phases.
- The Community Access Program (CAP) provides a platform for innovative approaches to social and economic development in communities across the country. Through CAP, Canadians have affordable Internet access in places like schools, community centres and libraries. Approximately 8800 public Internet access sites have been created in remote, rural and urban communities throughout Canada.

- Community Futures Development Corporations (CFDCs) are helping communities throughout Canada to develop their economies in innovative ways. CFDCs deliver services such as local strategic economic planning, technical and advisory services to businesses, loans to small and medium-sized business, self-employment assistance programs and services for youth and entrepreneurs with disabilities.
- The Federal Economic Development Initiative for Northern Ontario (FedNor) is working with its partners to improve the economic performance of Northern Ontario. FedNor provides support to small and medium-sized enterprises for early stage research and development, including support for prototype development and other commercialization costs. FedNor is also helping Northern Ontario communities provide the necessary infrastructure and environment to support innovation.
- Industry Canada, through its 15 regional and local offices, is working with Canadians in all parts of the country to improve conditions for investment, improve Canada's innovation performance, increase Canada's share of global trade and build a fair, efficient and competitive marketplace.
- Western Economic Diversification Canada (WD) promotes the development and diversification of the economy of Western Canada. WD works with industry associations, financial institutions and the four western provinces to address the needs of small business. For example, WD's Women's Enterprise Initiative provides business information and services specifically aimed at women entrepreneurs.

To find out more, go to the last pages of this brochure, which contain Web addresses for these innovation and learning programs. You may also call 1 800 O-Canada (1 800 622-6232; TTY/TDD 1 800 465-7735).

Business Planning and Development

By taking the risks needed to succeed in today's economy, the entrepreneur develops and brings to market innovative products that benefit Canadians. In addition to a range of services designed to help the entrepreneur succeed, the Government of Canada works with businesses and entrepreneurs to help them take advantage of research and development opportunities.

- Aboriginal Business Canada promotes the economic growth of Canada's Aboriginal peoples, by providing eligible applicants with financial assistance, information, resource materials and referrals to other possible sources of business support.
- The Business Development Bank of Canada (BDC) delivers financial and consulting services, subordinate financing and venture capital to Canadian small businesses with a particular focus on technology and exporting.

- Interested in starting a business or looking to expand? BusinessCateway.ca provides links to federal, provincial and territorial government information and services for small and medium-sized businesses.
- The Canada Business Service Centres (CBSCs) provide a central resource of Canadian business information. The goal of the CBSCs is to provide businesspeople in every part of Canada with access to accurate, timely and relevant business information and referrals. To find the nearest CBSC, call 1 888 576-4444; TTY: 1 800 457-8466.
- The Canadian Intellectual Property Office (CIPO) encourages invention and innovation through the administration of the intellectual property system in Canada.
- The Canadian Space Agency manages a number of research and development programs designed to develop new technologies for dealing with the rigors of space, as well as for more down-to-earth uses.

- CANARIE, Canada's advanced Internet development corporation, funds a number Canadian-led projects and initiatives designed to develop innovative applications and technologies for advanced broadband networks.
- The Innovation Centre of Communications Research Centre Canada helps young Canadian companies develop their potential through on-site technology incubation. The Centre offers work facilities at affordable rates, world-class researchers and leading-edge technologies, business development assistance, networking opportunities and centralized support services.
- The National Research Council (NRC) Canada's Industrial Partnership Facilities are being built across the country to help small and medium-sized firms increase their capacity for innovation and improve technology transfer. Firms gain access to NRC's specialized facilities, the expertise of its researchers and its technology intelligence and knowledge dissemination resources.

- The NRC's Industrial Research Assistance Program, with 265 Industrial Technology Advisors in 90 communities across Canada, is helping small and medium-sized enterprises exploit new technologies. IRAP offers advisory services, financial assistance, networking and access to partners.
- The Scientific Research and Experimental Development (SR&ED) Program provides tax incentives to Canadian businesses that conduct research and development in Canada. The program is intended to encourage businesses particularly small and start-up firms to conduct R&D that will lead to new, improved or technologically advanced products or processes.

- Industry Canada's **Student Connections (SC)** provides small and medium-sized business with e-commerce and Internet training by post-secondary students and recent graduates. SC helps businesses adopt innovative practices to remain competitive in today's global marketplace.
- Technology Partnerships Canada makes strategic repayable investments in Canadian firms to assist in research, development and innovation in environmental, enabling and aerospace and defence technologies.
- Technology Roadmaps are a practical business forecasting tool that helps firms to make accurate predictions of future market demands and determine the innovative processes and products required to satisfy them. Current roadmaps available are: Canadian Aircraft Design, Manufacturing and Repair & Overhaul; Aluminum; Electrical Power; Forest Operations; Geomatics; Lumber and Value-Added Wood Products; Metal Casting; and Medical Imaging.

To find out more, go to the last pages of this brochure, which contain Web addresses for these innovation and learning programs. You may also call 1 800 O-Canada (1 800 622-6232; TTY/TDD 1 800 465-7735).

Canadian Innovators

Here are examples of innovative Canadian entrepreneurs, researchers and academics. These Canadians exemplify the spirit of innovation and lifelong learning, and are helping to move Canada into the front ranks of innovative nations.

To find out more about these and other Canadian innovators, go to www.innovationstrategy.gc.ca and follow the *Innovative Canadians* link to *Success Stories*.

Atlantic Canada Innovators

- Terra Nova Shoes in Harbour Grace, Newfoundland and Labrador, is putting the boots to the competition by blending innovation with traditional hand-tooled craftsmanship.
- Spell Read P.A.T. Learning Systems of Charlottetown, Prince Edward Island, is helping the deaf to speak and assisting those who cannot read.
- Acadian Seaplants of Dartmouth, Nova Scotia, is growing seaweed on land to the delight of its Asian gourmet customers.
- Precision Metal Works of Mactaquac, New Brunswick, is moving from metal fabrication into the semiconductor and aerospace industries.

British Columbia Innovators

- HyperWallet of Vancouver, makes on-line purchasing safe and easy, with no credit card required.
- Nuytco Research of North Vancouver has created an "underwater sports car" a revolutionary micro-submersible deep-diving system called the "DeepWorker."
- Pacific Insight Electronics of Nelson is the guiding light behind a major automotive safety innovation.

Ontario Innovators

- Millennium Biologix of Kingston is supporting regeneration of tissue and restoring health to bones.
- For London's Purifics Environmental Technologies, clean air and water come from pure innovation.
- Waterloo's **Research In Motion** has connected more than a quarter million people with its BlackBerry.
- Forty years after its first flight, the legendary Bush Hawk bush plane is being revived in Parry Sound, by one of its original designers at Found Aircraft Development.

Prairie and Northern Innovators

- K9 Storm of Winnipeg, Manitoba, has developed a line of bulletproof vests to protect the police dogs that protect us.
- Interactive Tracking Systems (ITracks) of Saskatoon, Saskatchewan, provides customized Web survey programs and on-line focus group surveys. The key word is "innovation."
- At the University of Calgary, MD Robotics is using technology from the Canadarm to help with neurosurgery here on earth.
- The **soapstone artists** of Sanikiluaq, Nunavut, have a new way to sell their traditional carvings.

Quebec Innovators

- Shire BioChem of Laval, is creating Canada's greatest contribution to medical therapies since insulin.
- Lignco of Ste-Marthe-du-Cap has transformed painting lines on roads from an art to a science.
- Royal Mat of Beauceville is making an enhanced soundproofing product out of used tires.
- My Virtual Model Inc. of Montréal is letting customers "try on" clothes on the Internet and is revolutionizing e-commerce in the fashion industry.

Web Site Addresses

Canada's Innovation Strategy www.innovationstrategy.gc.ca

Industry Canada www.ic.gc.ca

Human Resources Development Canada www.hrdc-drhc.gc.ca

Opportunities for Students and Researchers

Agriculture and Agri-Food Canada — Directory of Research res2.agr.ca/research-recherche/ann-dir/index_e.html

Biotechnology Gateway strategis.gc.ca/SSG/bo01376e.html

Canada's Digital Collections collections.ic.gc.ca

Canada Education Savings Grant Program www.hrdc.gc.ca/hrib/learnlit/cesg

Canada Foundation for Innovation — Funding www.innovation.ca/programs

Canada Millennium Scholarship Foundation www.millenniumscholarships.ca

Canada Research Chairs chairs.gc.ca

Canada Student Loans Program www.hrdc-drhc.gc.ca/hrib/cslp/common/c/index_e.html

Canada WorkinfoNet www.workinfonet.ca

Canadian Institute for Advanced Research www.ciar.ca

Canadian Institutes of Health Research www.cihr-irsc.gc.ca

Canadian Technology Network

CanLearn

www.canlearn.ca

Computers for Schools www.schoolnet.ca/cfs-ope

Department of Fisheries and Oceans — Science and Technology Youth Internship Program www.dfo-mpo.gc.ca/science/career-carriere/yip_e.htm

Department of Foreign Affairs and International Trade — Exchange and Internship Programs www.dfait-maeci.gc.ca/culture/youth-en.asp

Department of Foreign Affairs and International Trade — Science and Technology Program www.infoexport.gc.ca/science

Destination 2020 www.careerccc.org

DiscoverIT www.discoverit.org

Essential Skills Web Site www.hrdc.gc.ca/essentialskills

Genome Canada www.genomecanada.ca

Job Futures www.jobfutures.ca

Jobs, Workers, Training and Careers www.jobsetc.ca

Natural Resources Canada — Science and Technology Internship Program www.nrcan.gc.ca/css/hrsb/st/intern-e.htm

Natural Sciences and Engineering Research Council of Canada

www.nserc.ca

Networks of Centres of Excellence www.nce.gc.ca

Pierre Elliott Trudeau Foundation www.trudeaufoundation.ca

Research Partnerships and Services www.innovation.gc.ca/scdt/innovation/interface2.nsf/engdoc/3.html

SchoolNet www.schoolnet.ca

Scientific Research and Experimental Development Program

www.ccra-adrc.gc.ca/sred

SkillNet www.skillnet.ca

Social Sciences and Humanities Research Council of Canada
www.sshrc.ca

The Work Handbook/Career Directions www.careerccc.org

Youth Employment Strategy www.youth.gc.ca

Youth Path www.youthpath.ca

Building Innovative Communities

Aboriginal Canada Portal www.aboriginalcanada.gc.ca

Atlantic Canada Opportunities Agency www.acoa.ca

Atlantic Innovation Fund www.acoa.ca/e/financial/aif/index.shtml

Business Development Program www.acoa.ca/e/financial/business.shtml

Broadband for Rural and Northern Development broadband.gc.ca

Canada Economic Development for Quebec Regions www.dec-ced.gc.ca

Community Access Program cap.ic.gc.ca

FedNor fednor.ic.gc.ca

Innovation strategis.gc.ca/SSG/fn00808e.html

Support for SMEs strategis.gc.ca/SSG/fn00827e.html

Innovation in Sustainable Development www.nrcan-rncan.gc.ca/sd-dd/innov/innov_e.html

National Research Council Canada — Building Technology Clusters

www.nrc-cnrc.gc.ca/doingbusiness/clusters_e.html

NRCan Aboriginal Portal www.nrcan.gc.ca/aboriginal/explore-e.htm

Pan Canadian Community Futures Network www.communityfutures.ca

Western Economic Diversification Canada wd.gc.ca

Innovation wd.gc.ca/eng/innovation/default.htm

Business Development wd.gc.ca/eng/business.htm

Business Planning and Development

Aboriginal Business Canada www.abc-eac.ic.gc.ca

Agriculture and Agri-Food Canada — Innovation for Growth www.agr.gc.ca/cb/brochure/innovation_e.phtml

Agriculture and Agri-Food Canada Programs and Services www.agr.gc.ca/progser/index_e.phtml

Business Development Bank of Canada www.bdc.ca

Business Development — Arts and Cultural Industries www.dfait-maeci.gc.ca/arts/devel-en.asp

Business Gateway www.businessgateway.ca

Canada Business Service Centres www.cbsc.org

Canadian Intellectual Property Office www.cipo.gc.ca

Canadian Space Agency space.gc.ca

Canadian Standards Association www.csa.ca

The Canadian Trade Commissioner Service www.infoexport.gc.ca/ie-en/MarketReportsAndServices.jsp

CANARIE — Funding Programs www.canarie.ca/funding/index.html

Communications Research Centre Canada — Innovation Centre

www.crc.ca/en/html/crc/home/innovation/innovation

Farm Credit Canada www.fcc-sca.ca/english

The Farm Improvement and Marketing Cooperatives Loans Act Program

www.agr.gc.ca/nmp/fimcla/overview_e.html

Industrial Research Assistance Program

http://irap-pari.nrc-cnrc.gc.ca

National Research Council Canada — Industry Partnership Facilities

www.nrc-cnrc.gc.ca/doingbusiness/ipf_e.html

Strategis.gc.ca

Student Connections www.scp-ebb.com

Technology Partnerships Canada tpc.ic.gc.ca

Technology Roadmaps strategis.gc.ca/epic/internet/intrmcrt.nsf/vwGeneratedInterE/Home

Women's Enterprise Initiative www.wd.gc.ca/eng/pos/wei/xindex.html

Workplace Innovations www.hrdc-drhc.gc.ca/common/workplace.shtml#innovations