

## ■ Appendix 1: BUILDING MANITOBA'S CAPACITY FOR INNOVATION

Manitoba's *Action Strategy for Economic Growth*, developed with input from the Premier's Economic Advisory Council, emphasizes the importance of investments in research and innovation. The *Manitoba Innovation Framework* identifies key actions to enhance the innovative capacity of the economy and to foster an environment favourable for sustainable economic growth, job creation and quality of life for Manitobans.

Manitoba's efforts continue to show positive results. Productivity in Manitoba has grown at an impressive rate over the past several years. According to the latest data from Statistics Canada, Manitoba is a leader in real business labour productivity growth, with an increase of 9.5% over the five years to 2008. This represents average annual growth of 1.8%, second best among provinces and well above the national average increase of 0.6% per year.

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**“Innovation is the specific instrument of entrepreneurship... the act that endows resources with a new capacity to create wealth.”**

– Peter Drucker,  
Management Expert  
*Innovation and Entrepreneurship, 1985*

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Manitoba is proud of its already thriving innovation and technology sector. The province is home to many leading-edge innovation businesses in key sectors such as advanced manufacturing, information and communications technology, new media, life sciences and biotechnology, and others.

In the current economic environment, it is important to continue to focus on and invest in Manitoba's innovation system. This will help business to remain globally competitive and provide opportunities for growth in tomorrow's economy. Innovation is also critical to support ongoing

productivity growth and raising the standard of living of Manitobans. To ensure growth we must continue to build our capacity for innovation.

Strategic investments in education and skills, research and innovation, and a competitive business environment will enable Manitoba to cultivate the research and entrepreneurial talent needed to create knowledge and turn it into social and economic prosperity.

### Recent Efforts to Build Manitoba's Capacity for Innovation

#### I. Education and Skills

Manitoba's *Action Strategy for Economic Growth* begins with a comprehensive education and skills development plan to ensure Manitobans have the knowledge and skills needed in an increasingly competitive economy. Manitoba has focussed attention

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**“Innovation is the key while skilled labor is the bottleneck. ...skilled labor, in particular those with specific, specialized skills...are essential for unlocking innovative capabilities, creating new products and services, and reaching new consumers on a global scale.”**

– The Conference Board of Canada

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on developing knowledge and skills by: making education and training more accessible; attracting and retaining skilled people; investing in college and university programs and infrastructure; and expanding the training and apprenticeship system.

Highlights of recent accomplishments:

- Under the *Canada-Manitoba Knowledge Infrastructure Program (KIP) Agreement*, delivery of advanced knowledge and skills training in Manitoba is being strengthened by supporting deferred maintenance, renovation, new construction and research and development improvements at post-secondary institutions.

- Twenty-nine KIP projects are being supported in Manitoba, including the University of Winnipeg **Science Complex** and the University of Manitoba **Buller Building Science Labs and Infrastructure Renovation**.
- The **Science Complex** will enhance research and development through state-of-the-art energy efficient labs and act as a new gateway to the downtown, enhancing the overall development of the downtown and inner city while contributing to a science innovation network. The **Buller Building** project will renew microbiology research and teaching labs and research support infrastructure, and will greatly improve the efficacy of research and advanced teaching in science and technology priority areas.
- As of 2009/10, the **College Expansion Initiative (CEI)** has met its commitment to double college enrolments in Manitoba, helping to address demand for skilled workers in growth sectors.
- Start-up funding from CEI was recently approved for Red River College's new **Bachelor of Technology in Construction Management** program, the very first college degree program in Manitoba that will be offered through the new 2009 degree-granting authority for colleges.
- In 2008, the Winnipeg **Business and Training Centre** was opened in partnership with the **Alliance of Manitoba Sector Councils** and **Workplace Education Manitoba**, providing an innovative hub for the services of 17 sector councils and associations. The Centre houses state-of-the art training labs, including one of only a handful of Apple Authorized Training Centres in Canada.
- The **Provincial Nominee Program** for skilled immigrants and the **Provincial Nominee Program for Business** have attracted record numbers of skilled workers and business immigrants to Manitoba. There were more immigrant businesses started and more investment dollars in 2008/09 than in any previous year and 2009/10 is on track to raise the bar higher again. 2009 is also expected to be a record year for skilled immigrant arrivals in Manitoba – the preliminary count is 10,148 provincial nominees, making up three quarters of all arrivals.
- Manitoba has actively contributed to the development of the **Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications**. The Framework complements work already under way in Manitoba to improve outcomes for internationally trained professionals.
- The **Tuition Fee Income Tax Rebate** helps encourage young people, from anywhere in the world, to live and work in Manitoba by providing a 60% tuition rebate for all post-secondary graduates, including apprentices. Beginning in 2010, Manitoba students will be provided with a 5% advance on this rebate.
- In co-operation with Western Economic Diversification Canada, Manitoba's University College of the North will construct and equip a new **Northern Manitoba Mining Academy** in Flin Flon. The new academy will provide facilities for training and research in mining, including a geology lab, a multi-purpose wet lab, video-conference facilities and a library specializing in mining and geosciences.

### Manitoba's Sector Councils

Arts and Cultural Industries  
 Association of Manitoba  
 Canadian Manufacturers & Exporters  
 Film Training Manitoba  
 Information and Communication  
 Technologies Association of Manitoba  
 Life Science Association of Manitoba  
 Manitoba Aerospace  
 Manitoba Aviation Council  
 Manitoba Construction Sector Council  
 Manitoba Customer Contact Association  
 Manitoba Environmental  
 Industries Association  
 Manitoba Federation of Non-  
 Profit Organizations  
 Manitoba Food Processors Association  
 Manitoba Music  
 Manitoba Print Industry Association  
 Manitoba Tourism Education Council  
 New Media Manitoba  
 Northern Manitoba Sector Council

## II. Research, Innovation and Commercialization

Technology commercialization is an important priority for Manitoba and is critical to future economic growth. New research and technologies provide us with the knowledge, tools and means to deal with current challenges, such as health and the environment. More effective translation of research into practical applications will allow more local firms to commercialize new technologies.

The Government of Manitoba is supporting the development of the province's capacity to innovate by placing a priority on the following areas: building research infrastructure; encouraging investments in research and development activities; and supporting technology commercialization.

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“The value of an idea lies in the using of it.”

– Thomas Edison

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Recent activities that support these priorities:

- Total Government of Manitoba support for research and development in 2008/09 was \$32.2 million, a 5.2% increase over 2007/08 and nearly double the level provided in 1999/2000.
- The **Manitoba Research and Innovation Fund (MRIF)** is the Government of Manitoba's primary R&D support initiative. Since 2003, MRIF has provided over \$85 million to support Manitoba's scientists and entrepreneurs in a wide range of sectors.
- Under the Canada-Manitoba Western Economic Partnership Agreement, the Governments of Canada and Manitoba are investing a total of \$7 million toward 34 leading-edge research and teaching labs as a core part of the new **UWin CREATE** alliance (the University of Winnipeg Commercialization Research and Education Alliance for Science, Technology and the Environment).
- In further support of UWin CREATE's research and teaching capabilities, the Province of Manitoba, under MRIF, and Cisco Systems Inc. are contributing \$2 million each in support of the **Cisco Endowed Research Chair**.
  - The Manitoba Government continues to support the province's technology business incubators, which are integral elements of Manitoba's innovation and technology commercialization strategy. **Biomedical Commercialization Canada Inc.** and the **Eureka Project** are two such incubators, which are providing hands-on assistance to Manitoba's future business successes.
  - The **Advanced Manufacturing Initiative** has continued to encourage industry to reduce waste and implement lean manufacturing principles, allowing manufacturers to increase productivity and become more profitable.
  - Canada and Manitoba are collaborating to accelerate innovation under **Growing Forward**, a strategic framework for agriculture and food, which will make available up to \$39.2 million in support of innovation between 2009/10 and 2012/13 through the Strategic Innovation Fund and the Industry Innovation Fund.

### The Winnipeg Chamber of Commerce recognizes New Flyer Industries with a Spirit of Winnipeg Award

The Chamber notes “New Flyer is known for breaking new ground with the first low-floor bus, the first diesel-electric bus and, most recently, the world's first zero-emission hydrogen fuel cell fleet. Innovations like these have made New Flyer the 'go-to' manufacturer for 235 transit authorities across North America – including 20 of the 25 largest transit authorities.”

- The **Industrial Technology Centre (ITC)** provides services to small- and medium-sized enterprises and through this has developed strong relationships with the Canadian Manufacturers & Exporters, Manitoba Aerospace association and the Consulting Engineers of Manitoba. Government understands the importance of stimulating innovation and therefore has committed, in 2010/11, to invest over \$1 million in ITC to ensure that Manitoba small- and medium-sized companies have access to needed new technologies.
- Manitoba's composites cluster will solidify its leadership position in domestic and international markets, due in part to an investment of more than \$11.6 million to the **Composites Innovation Centre** from the Governments of Canada and Manitoba.
- Manitoba and the world's aviation industry will benefit from the development of the new **Canadian Environmental Test Research and Education Center** in Thompson, a cold weather aerospace engine test centre. An investment of \$13.4 million from the Government of Canada and a \$9.0 million secured, repayable loan from the Province of Manitoba toward this major northern initiative will create value-added economic activities in northern Manitoba as the knowledge and technology developed in Thompson emerge into commercial opportunities.

### III. Competitive Business Environment

Important to building an innovative economy is a competitive business environment, where researchers and entrepreneurs are able to thrive. Factors affecting a competitive business environment include the costs of conducting business, such as taxation and the cost of inputs including labour and capital; government policies, services and programs that support innovation and competitiveness; and the ease of interacting with government.

As of 2010, when fully implemented, businesses in Manitoba will pay \$422 million less in Manitoba taxes than in 1999. Not only do these tax savings provide businesses with additional working capital for innovation and reinvestment, several measures introduced since 1999 specifically target investments in innovation.

Recent Provincial Government taxation measures that support innovation and competitiveness:

- The **R&D Tax Credit** was increased from 15% to 20% in 2005 and has been enhanced by making the credit refundable for corporations that incur prescribed expenditures in Manitoba after 2009, and under an eligible contract with a qualifying Manitoba research institute.
- **The Corporation Capital Tax** was eliminated for manufacturers and processors, effective July 1, 2008. The general *Corporation Capital Tax* will be eliminated, except for Crown corporations, as of December 31, 2010.
- **The Small Business Corporation Income Tax** will be eliminated, effective December 1, 2010.
- In 2008, the refundable portion of the **Manufacturing Investment Tax Credit** was increased to 70%.
- In 2009, the annual approval limit for the **Small Business Venture Capital Tax Credit** was doubled from \$16.7 million to \$33.0 million.
- The **Co-op Education and Apprenticeship Tax Credits** have been expanded to include an **Advanced-Level Apprentices Hiring Incentive** component, and all program components have been extended to the end of 2011. Budget 2010 further broadens eligibility to include early year apprentices in high school and post-secondary training.

#### R&D Tax Credit Enhanced

Budget 2010 announces that the R&D tax credit for in-house R&D will become partly refundable starting in 2011. The refundable portion will be one-quarter in 2011 and one-half in 2012.

- In 2008, the Government introduced the **Interactive Digital Media Tax Credit**. Budget 2010 extends the credit for another three years and improves access to the credit.
- A federal budget measure has been paralleled by Manitoba to extend the accelerated capital cost allowance (CCA), or tax depreciation, rate on manufacturing machinery and equipment acquired in 2010 and 2011 and allows 100% CCA on computer hardware and systems software acquired in 2009 and 2010.
- In 2008, the **Green Energy Equipment Tax Credit** was made applicable to geothermal heating systems. In 2009, the maximum 10% credit was expanded to apply to purchasers who install solar heating systems in Manitoba.

### Manitoba Innovation Council

Dr. Albert D. Friesen, Co-chair, President and CEO, Medicare Inc. and President, Genesys Venture Inc.

Dr. Joanne C. Keselman, Co-chair, Vice-President (Academic) and Provost, University of Manitoba

Ms. Doneta Brotchie, Program Director, Leadership Winnipeg

Ms. Marilyn Kapitany, Assistant Deputy Minister, Manitoba Region, Western Economic Diversification Canada

Dr. Sandra Kirby, Associate Vice-President (Research) and Dean of Graduate Studies, University of Winnipeg

Dr. John Langstaff, President and CEO, Cangene Corporation

Ms. Jan Lederman, Partner, Thompson Dorfman Sweatman LLP

Ms. Heather Reichert, CA, Deputy Minister, Manitoba Advanced Education and Literacy

Mr. H. Sanford Riley C.M., President and CEO, Richardson Financial Group Limited

Dr. Ian C.P. Smith, Director General, National Research Council of Canada Institute for Biodiagnostics

Mr. Paul Soubry Jr., President & CEO, New Flyer Industries

To make it easier for entrepreneurs to interact with government, the Province has introduced a variety of initiatives to simplify and streamline services and move toward a more client-centred approach to service delivery.

Recent progress in this area:

- **BizPaL**, an on-line self-serve tool that provides a customized list of the permits and licenses a business requires to start up or expand, is now available in 30 communities across Manitoba.
- The **Manitoba Business Gateway** has been established in Brandon. This single-window service centre provides information and referrals for the province's business and employer services that support innovation and competitiveness.
- The **Manitoba e-Learning Network** enables small business seminars to be video-cast to 48 video conference sites across the province.

### Continuing to Build Manitoba's Capacity for Innovation

Manitoba recognizes the importance of innovation to the future of the province and commits to continued provincial investments in research and innovation.

The Manitoba Innovation Council was announced on April 6, 2009 as a new mechanism for the business and academic communities, as well as the federal government, to provide advice to the Provincial Government on innovative economic development. The Council, co-chaired by prominent leaders, Dr. Albert Friesen and Dr. Joanne Keselman, is focussed on priorities such as the technology commercialization to capitalize on research and development resulting from academic, business and government collaboration. As well, the Council is assessing opportunities for enhanced investments through capital markets that would increase economic growth for Manitoba-based companies. Finally, building on the 2010 Innovation

Symposium and 2010 Winnipeg Chamber of Commerce Awards, the Innovation Council is promoting a culture of innovation in Manitoba through entrepreneurs' and innovators' success stories.

Federal Budget 2010 announced that the federal government "in close consultation with business leaders from all sectors and our provincial partners, will conduct a comprehensive review of all federal support for R&D to improve its contribution to innovation and to economic opportunities for business. This review will inform future decisions regarding federal support for R&D." Manitoba looks forward to participating in this review and considers it an opportunity to strengthen partnerships with the federal government in this area. Working together will allow Manitoba businesses to maximize benefits of a wide range of research and innovation supports.

Innovation is critical to Manitoba's future economic success. Manitoba companies' ability to grow and succeed, now more than ever, depends on their capacity to commercialize new technologies, products and processes. A great deal has been accomplished in Manitoba to create an environment that supports innovation, but more work remains to be done.