

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

Innovation is one of the cornerstones of Manitoba's five-year economic plan. New ideas, new products, new processes, new markets, and new jobs – these are the things that build Manitoba's economy and provide a brighter future for all Manitobans.

More than ever before, innovation is the engine that drives economic growth. Globalization is leveling the international playing field. Changes in trade agreements and financial markets, along with technological advances in information and communications technology, have reduced or eliminated many of the barriers that once sheltered local industry from international competition. The new reality is that local firms must continually innovate, adapt and create new products and services to compete beyond regional borders.

Manitoba has worked hard over the past decade to build capacity for innovation in our economy. When the first *Action Strategy for Economic Growth* was released in 2003, support for research and innovation was a key feature of Manitoba's overall plan. Based on the recommendations of the Premier's Economic Advisory Council, the strategy emphasized the importance of investments in research and innovation to build competitive advantage. This was supported by the introduction of the *Manitoba Innovation Framework*, which identified key actions to encourage and sustain innovation.

Manitoba's support for the initiatives outlined in the *Manitoba Innovation Framework* and *Manitoba's Action Strategy for Economic Growth* continue to show results. One of the key measures of innovation is productivity and Manitoba is a leader in real productivity growth. Over the last six years, Manitoba has seen the largest increase in labour productivity at 9.5% and more than double the national increase of 4.3%. That is the highest increase in Canada.

*Over the last six years,  
Manitoba has seen the largest  
increase in labour productivity  
at 9.5% and more than double  
the national increase of 4.3%*

Manitoba Bureau of Statistics

Looking to the future, prospects for continued productivity growth are excellent. According to Statistics Canada, capital investment for machinery and equipment increased by 5.6% in 2010 and is expected to increase by another 6.9% in 2011. In the manufacturing sector, machinery and equipment investment spending is expected to grow even faster, going from 9.2% in 2010 to 32% in 2011.

Support for research and development (R&D) activity is another key indicator. Manitoba has one of the best R&D climates in Canada, with an extensive network of R&D facilities supporting innovation, commercialization and productivity growth. Since 1999, Manitoba's annual direct support for R&D has doubled, to almost \$40 million.

New and improved infrastructure is available to support innovation, including business incubators like Biomedical Commercialization Canada Inc. and the Eureka Project, new research centres like the Composites Innovation Centre and the Richardson Centre for Functional Foods and Nutraceuticals, and significant improvements at existing centres like the Industrial Technology Centre and the Food Development Centre.

Manitoba exporters benefit from a modern, well-established network of highways, railways, air and sea connections. New developments under way now will increase the already significant advantages Manitoba has to offer to companies looking to grow their international trade. One of these is CentrePort Canada, Manitoba's new 2,000 acre inland port and Canada's first Foreign Trade Zone. The Arctic Gateway Initiative, in which Manitoba is working with key stakeholders, including Russia and China, to help realize the Arctic's potential as a trade and economic development zone, is another.

## Building an Innovative Economy

Well-educated and technically skilled workers, a strong and collaborative research and development culture, entrepreneurial spirit and a supportive business environment are the building blocks of an innovative economy. Strategic investments in these areas over the years have laid the foundation for strong growth in the future.

## Building a Skilled Work Force

An educated, skilled and motivated population is a critical part of Manitoba's competitive advantage. Investments supporting high-quality, affordable and accessible opportunities for education and training help build Manitoba's economy and secure a prosperous future for all Manitobans.

- Since 1999, total provincial operating funding for Manitoba's colleges and universities has increased by more than 80% and the province has supported over \$800 million in capital investment for our post-secondary institutions.
- Better funding for colleges and universities has been a key to keeping education affordable and accessible. Manitoba has the second-lowest college tuition fees in the country and the third-lowest university tuition fees. Enrolment in post-secondary institutions has increased by more than one-third since 1999.
- Manitoba's Tuition Fee Income Tax Rebate also helps encourage young people to live, work and build businesses in Manitoba by providing a 60% tuition rebate for all post-secondary graduates. Since 2007, \$19 million in rebates have been claimed and \$19 million is forecast to be claimed in 2010. Beginning in 2010, Manitoba students can claim a 5% advance on this rebate, providing immediate income assistance to students and saving them \$7.5 million annually.
- The number of active apprentices has more than doubled since 1999, and Manitoba has committed to continuing to create additional apprenticeship opportunities.
- Manitoba recently announced \$6.4 million in new funding for technical vocational training. With every new innovation and high-tech invention, demand for skilled workers increases. This new funding will be used to increase opportunities and ensure the curriculum incorporates and directly relates to world-class, cutting-edge resources for students and professional staff.
- To help more young Manitobans qualify for high-skilled jobs, the new Len Evans Centre for Trades and Technology was opened at the Assiniboine Community College in Brandon in 2010. This new high-tech, world-class training facility will accommodate more than 1,400 students and include more than 700 new apprenticeship spaces.
- The University of Manitoba is undergoing a historic transformation of its campus. The new Engineering building, the Smartpark research and development park, and the Richardson Centre for Functional Foods and Nutraceuticals are already completed and a multi-building redevelopment program is under way which includes the construction of a completely new student residence.
- The new building housing the University of Winnipeg's Science Complex and Richardson College for the Environment is scheduled to open in 2011. This new state-of-the-art instructional facility will ensure that students who study in Manitoba have leading-edge educations that prepare them for the jobs of the future.

*Investments supporting high quality, affordable and accessible opportunities for education and training help build Manitoba's economy and secure a prosperous future for all Manitobans.*

- The University College of the North campus in The Pas is being renovated and expanded, including a library expansion, on-campus housing, a new child-care facility and a redeveloped student service centre. In Thompson, a new campus will expand the capacity of the college from 342 to 510 students, and apprenticeship spaces will increase from 48 to 150. The Thompson campus will also feature on-campus housing, a child-care centre, new library and learner support services, as well as ceremonial and elder space and other Aboriginal student services.

## Strengthening Research and Development

Research and development are key elements in the capacity for innovation, but it is the transformation from research to practical application that really creates growth. Over the past decade, the Government of Manitoba has focused more on enhancing the capacity for innovation through building research infrastructure and encouraging investments in research and development. Building on that foundation, the future will see an increasing emphasis on the full range of commercialization activities, from the development of an idea to the successful marketing of the result.

The Manitoba Research and Innovation Fund (MRIF) was created to help increase the capacity of the province's universities, colleges, hospitals and other institutions to carry out important, world-class research and development. Since 2003, it has provided over \$90 million in research and innovation support for health and agriculture, technology and aerospace, cultural and new media industries, and alternative energy developments. Budget 2011 adds another \$1.5 million to MRIF.

- The Advanced Manufacturing Initiative encouraged industry to reduce waste and implement lean manufacturing principles, allowing manufacturers to increase productivity and become more profitable. Supported by funding of \$4.2 million under the Canada-Manitoba Economic Partnership Agreement, the Centre of Manufacturing Excellence Initiative will build on the success of the Advanced Manufacturing Initiative.
- Manitoba's technology business incubators 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. In total, these two incubators have graduated 11 companies and are currently providing hands-on mentoring assistance to 24 start-up and early-stage firms that are poised for future business success.
- The Composites Innovation Centre assists companies in developing, testing and commercializing composite materials and technologies for manufacturing industries. Since it was created in 2003, it has undertaken more than \$12 million in projects.
- The \$10 million Concordia Hip and Knee Institute Strategic Research Initiative will enhance the capacity of the province's medical device industry to develop and commercialize specialized joint replacement technology. This is a unique collaborative effort where surgeons and professional engineers work side by side in developing, testing and assessing novel solutions under controlled laboratory environments and in clinical trial.
- Manitoba is partnering with the Government of Canada 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.
- The Richardson Centre for Functional Foods and Nutraceuticals unites researchers from a variety of disciplines, along with industry partners to study bioactive compounds in prairie crops and develop functional foods and nutraceuticals.

- The Food Development Centre in Portage la Prairie is being expanded with the support of the federal and provincial governments to provide additional resources to innovators engaged in food and ingredient development. In 2009/10, the Food Development Centre has helped to develop 48 new food products and completed nutritional analysis for 351 products.
- A Strategic Innovation Grant to the Prairie Agricultural Machinery Institute is supporting agricultural research, development, and testing of farm equipment and technology aimed at enhancing the productivity and income of Manitoba's agricultural producers.
- Prairie Pulp and Paper is using \$400,000 in Advancing Agri-Innovation funding to take its new non-wood products to the market evaluation phase, moving the company closer to its decade-long dream of mass-producing paper from flax and cereal by-products.
- Schweitzer-Mauduit Canada used \$385,000 of Advancing Agri-Innovation funding for equipment that transforms low-value flax shives into biomaterials. This new product line is helping the company access higher value markets so it can keep jobs in Carman, Winkler and Treherne.

### Creating a Supportive Environment

Just as important as having the right people and the right ideas is having the right environment to support the translation of ideas into commercially successful ventures. Fostering the right environment requires a combination of well-designed funding supports and tax measures, along with a business culture that encourages collaboration and celebrates success. In Manitoba, the after-tax cost of one dollar of R&D expenditure in 2011 is just 46 cents.

- The R&D Tax Credit was increased from 15% to 20% in 2005 and has been enhanced, making it refundable for corporations that incur prescribed expenditures in Manitoba after 2009, under an eligible contract with a qualifying Manitoba research institute.
- The tax credit for in-house R&D is also now partly refundable: one-quarter in 2011 and one-half starting in 2012. In total, R&D Tax Credit benefits will increase from \$22 million to \$35 million annually with these improvements.
- The refundable portion of the Manufacturing Investment Tax Credit was increased to 70% in 2008.
- The annual approval limit for the Small Business Venture Capital Tax Credit was doubled from \$16.7 million to \$33.0 million in 2009.
- The Corporation Capital Tax was eliminated for manufacturers and processors in 2008 and general Corporation Capital Tax was eliminated as of December 31, 2010.
- The Small Business Corporation Income Tax was also eliminated on December 1, 2010.
- The Co-op Education and Apprenticeship Tax Credit provides incentives up to \$2,500 per eligible employee to employers who offer work experience to young Manitobans. Eligible hires include co-op students and graduates, apprentices and newly certified journeypersons.

*In Manitoba, the after-tax cost of one dollar of R&D expenditure in 2011 is just 46 cents.*

- The total Green Energy Equipment Tax Credit on geothermal heating systems is increased from 10% to 15%, effective for installations after April 12, 2011. The tax credit for Manitoba manufacturers of qualifying geothermal heat pumps will increase from 5% to 7.5%. The tax credit for purchasers of qualifying made-in-Manitoba geothermal heat pumps installed in Manitoba will also increase from 5% to 7.5%.
- In 2008, the government introduced the Interactive Digital Media Tax Credit. Budget 2010 extended the credit for another three years and improves access to the credit.
- To attract and encourage the expansion of small, innovative financial institutions in Manitoba, banks with taxable paid-up capital under \$4 billion will be exempt from the 3% capital tax, commencing with taxation years ending after April 12, 2011. This will provide Manitoba companies with access to more diverse sources of capital for growing their businesses.

It is also important for the government to provide a solid infrastructure to facilitate business activity. This is why Manitoba has established the Manitoba Business Gateway, a single-window solution to provide access and referrals to a wide array of business and employment information and services including how to start a business, permits and licenses, financial programs, business planning, recruiting, training and managing employees, business expansion and growth, interprovincial and international export opportunities and more, including new innovative online services such as BizPal and TAXcess.

## Renewing the Commitment

With the *Five-Year Economic Plan* entering its second year, the time is right to renew the commitment to supporting innovation as a key driver of future growth. As the effects of the global recession fade, renewed economic growth based on innovation will allow businesses to hire employees and provide investors with returns, and enable governments to manage public resources and deliver essential services. Manitobans have the ideas, the ability and the drive to make Manitoba the province of choice for

innovators and inventors who create new ideas as well as the entrepreneurs and investors who turn ideas into action.

*The next stage of Manitoba's  
innovation strategy will be  
business-oriented and focused  
on promoting the successful  
commercialization of new ideas.*

In 2009, the Manitoba Innovation Council was created to bring together people with diverse backgrounds in research, business and government to work on developing and implementing a plan to achieve this goal. The Council has been working diligently to provide advice to the government on a new innovation action plan, including new investments and a new single-window approach to delivering the government's innovation, entrepreneurship and business development programs.

The next stage of Manitoba's innovation strategy will be business oriented and focused on promoting the successful commercialization of new ideas. It will prioritize support in market sectors where Manitoba has a global competitive advantage and/or existing infrastructure to build momentum and support investments over the long term in sectors like green energy. In Manitoba, research and development is already under way on a wide range of new energy technologies ranging from biomass projects that turn agricultural waste into fuel to wind energy, hydrogen-fueled buses, plug-in electric vehicles and more.

Manitoba will increase its emphasis on exploring partnerships and networking by strengthening the links between research agendas and market requirements. The province will also continue to work to increase access to capital, striving to strike the appropriate balance between public investments that support investors directly and those that provide incubation or technical expertise through market channels.

Drawing on a network of internal and external sector experts, and with the support of the private sector, the province will launch new programs to support commercial innovation that will be outcomes oriented, activity based and flexible enough to provide support when it is needed throughout a venture's life cycle from start-up to market expansion.

Budget 2011 introduces the first of these new programs, the Manitoba Commercialization Support for Business Program. Manitoba is committing \$30 million over the next five years to support entrepreneurship, commercialization and business development, and fill gaps which the Innovation Council has identified by offering a comprehensive suite of new grants and services across the full development life cycle.

The goal of the renewed commitment is to build a culture and economy where innovators and inventors create new ideas and entrepreneurs and investors prosper in new markets. Consultations with the Innovation Council, Premier's Economic Advisory Council and other stakeholders will help shape the next steps in our effort to expand Manitoba's capacity for innovation. The Council will continue to be a champion and catalyst for innovation, and advise the government as we move forward.