

ACCESS WEST

SUMMER 2009

Canada's Economic Action Plan

Collaborating for Success:
Strengthening Aerospace
Innovation in Western Canada

**Commercializing
clean technologies
in the pulp and
paper industry**



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*The Honourable Lynne Yelich
Minister of State for
Western Economic Diversification*

MESSAGE FROM THE HONOURABLE LYNNE YELICH

OVER THE PAST DECADE, CANADA'S western provinces have enjoyed steady economic growth and success, benefiting from the region's abundance of natural resources that include agriculture, forestry, mining, and oil and gas. However, during the current global economic slowdown, it is crucial that the West capitalize on its wealth of aspiring entrepreneurs and leading innovators to build a resilient and diversified western economy.

Western Economic Diversification Canada's (WD) investments in innovation are improving the productivity of traditional industries and putting Western Canada at the forefront of the aerospace sector. In Saskatchewan, Regina's Petroleum Technology Research Centre will start two research projects to increase oil extraction efficiency and reduce strain of oil extraction on resources. In Thompson, Manitoba, a recent WD investment will support the development of a leading-edge cold weather airplane engine testing facility.

Accounting for nearly half of all existing jobs, small business is a vital source of economic growth in the

West and a top priority for WD. The Department invests in projects that equip the next generation of entrepreneurs and tradespeople with the skills they need to thrive in the global marketplace. In Alberta, WD has made several investments towards expanding training capacity at NAIT, ensuring that students train with state-of-the-art equipment and have a competitive advantage upon graduation.

The Department continues to work closely with communities to help them adjust to challenging economic circumstances and promote rural diversification. Most recently, our Department is contributing to Canada's Economic Action Plan by delivering the Community Adjustment Fund and Recreational Infrastructure Canada program throughout Western Canada.

Westerners are adventurers and, as this issue of Access West illustrates, WD is working hard to support western communities, entrepreneurs and innovators. I am confident that our efforts will continue to help build a stronger West, for a stronger Canada.

MINISTER'S MESSAGE



THE GOVERNMENT OF CANADA'S ECONOMIC ACTION PLAN

THE ECONOMIC ACTION PLAN (EAP) is the Government of Canada's plan to counter the effects of the global recession at home, while working with our international partners for a quick return to global economic growth and long-term prosperity.

The EAP contains major targeted action across four broad priorities:

- Further reducing the tax burden on Canadian individuals, families and businesses.
- Smart stimulus spending that creates jobs.
- Helping the Canadians that are hardest hit by the recession.
- Strengthening the Financial System and Improving Access to Credit.

As of June 11, 2009, eighty per cent of EAP initiatives are already being implemented.

WD's role under the EAP is to deliver the Community Adjustment Fund (CAF) and Recreational Infrastructure Canada (RInC) program in Western Canada. These two initiatives support the Canada's Economic Action Plan by creating jobs, upgrading community infrastructure and stimulating local economies across the West. [AW](#)

For more information, visit: <http://www.actionplan.gc.ca>



Minister Yelich participated in 8 round table discussions across Western Canada

LISTENING TO COMMUNITIES

LIKE MOST COUNTRIES AROUND THE WORLD, CANADA IS GRAPPLING WITH THE impact of the global recession. Canadians are facing reduced availability of financing, declining demands for Canadian exports and reduced profits due to the sharp drop in commodity prices.

The global recession has also had a dramatic impact on the communities that rely on resource based industries – including forestry, mining, agriculture, fisheries, oil and gas – and communities that depend on the manufacturing industry.

In May 2009, Minister of State Lynne Yelich visited eight communities across Western Canada, holding roundtable discussions with representatives from local chambers of commerce, town councils, economic development organizations, industry and small business owners.

"These roundtables are a chance to hear first hand how our western communities have been affected by the current global economic slowdown," said Minister of State Yelich. "They are an opportunity to hear directly what the needs are of communities and how our Government can help as we face these challenging times together."

Over the course of her tour, Minister Yelich learned about the specific impacts that the global recession has had on western communities and has opened up a dialogue to explore economic development opportunities that would provide short term stimulus and strengthen local economies over the long term. [AW](#)

STRENGTHENING FORESTRY COMMUNITIES IN NORTHERN SASKATCHEWAN



Vice Chief Eric Sylvestre, Meadow Lake Tribal Council; Minister of State Lynne Yelich; Chief Helen Ben, Meadow Lake Tribal Council; Mayor Darwin Obrigewitsch, Town of Meadow Lake; and, MP Rob Clarke at the NorSask sawmill in Meadow Lake.

THE FORESTRY INDUSTRY IS A VITAL source of jobs and economic activity for communities across Northern Saskatchewan. As forestry-based communities across Canada adjust to the global recession, it is crucial we continue to invest in new projects and technologies that diversify local economies and strengthen the long term sustainability of traditional industries.

In May 2009, Minister of State Yelich travelled to Meadow Lake to announce \$355,000 towards a project that will help diversify the local economy and sustain Northern Saskatchewan's forestry industry. The WD investment will enable the Meadow Lake Tribal Council Resource Development Inc. (MLTC) to renovate its test facility and assist with the testing of new technology, processes and equipment for new wood products.

"Our Government understands forestry communities are experiencing difficult times," said Minister of State Yelich. "The Meadow Lake saw mill and wood harvesting operation are two of the most important economic contributors to the northern Saskatchewan economy. That's why our Government is making this investment so we can help our communities that need it most during this global recession."

The development of new technologies and products will benefit MLTC by expanding potential revenue streams and increasing employment opportunities in the region. This funding also enables the MLTC to improve operational efficiencies and add environmentally-friendly products to its wood product line.

"MLTC is very pleased to receive funding from WD in order to move forward on new technology initiatives," said Tribal Chief Helen Ben. "The future of the forestry sector depends on new ideas and greater diversification. Our communities will benefit substantially if we can develop a prosperous future for forestry."

For example, the MLTC will partner with Cameco Corporation – a leading mining company with four mines in northern Saskatchewan – to develop a wood pellet heating system. Presently, Cameco uses propane to heat its facilities, which costs the company \$45 million annually. The development and use of this technology would be better for the environment and could save Cameco approximately \$30 million in heating costs per year.

Other products and technologies that may result from this investment include electrical generation from wood biomass; ethanol and biodiesel technologies; new composite construction products; cellulose-based textile products; and biopharmaceutical products. [AW](#)



Senator Nancy Greene Raine; Dave Haywood-Farmer, BC Cattlemen's Assoc.; Minister Yelich, BC Minister Bill Bennett; MP Cathy McLeod; and MLA Terry Lake following the announcement July 2009

DELIVERING FOR COMMUNITIES

The Community Adjustment Fund

INVESTING IN B.C.'S RANCHING INDUSTRY

With the downsizing of the ranching industry and forestry sector challenges, many workers from rural communities are unable to find alternate employment. A recent federal and provincial investment under the Job Opportunities Program will help put resource workers back to work while enhancing British Columbia's ranching industry.

The British Columbia Cattlemen's Association will receive more than \$5.5 million to deliver several different range fencing-related components on crown land, including fence line protection and replacing aging fences.

"Projects like this will ensure that jobs are created quickly, that families and workers are able to find economic security and provide the region with much needed fencing to protect both cattle and people," said Minister of State Yelich.

It is estimated that 130 fencing and fence protection projects will be completed with this funding. This project will create jobs, strengthen local economies and provide much-needed fences along crown land to protect both cattle and people.

This project is in keeping with the goals of the federal and provincial governments, as detailed in Canada's Economic Action Plan and British Columbia's Ranching Task Force, which are both working to create and maintain jobs for a strong, vibrant and sustainable economy.

The Government of Canada has contributed a total of \$30 million toward the Province of British Columbia's Job Opportunities Program, which will support projects that meet all the federal requirements for funding under the Community Adjustment Fund.



Minister Yelich and Minister Ambrose along with Provincial Forestry Warehouse staff examine the equipment that will be used by workers employed through the FireSmart program.

INVESTING IN ALBERTA'S FORESTRY INDUSTRY

Canada's Economic Action Plan includes several measures that focus on strengthening Canada's competitiveness and productivity. The Community Adjustment Fund – or CAF as it is known – is one of these measures. On June 5, 2009, Minister of State Yelich announced the first CAF investment of \$15 million to support Alberta forestry workers affected by the recession. The Province of Alberta also made an equal investment of \$15 million towards a project that enables the Forest Resource Improvement Association of Alberta (FRIAA) to implement FireSmart projects across Alberta.

"There is no doubt that the current global recession is affecting our families, our communities, and our country. Taking action on the economy is this Government's number one priority," said Minister of State Yelich. "Through the Economic Action Plan, we are helping strengthen all communities, to remain strong, healthy and resilient for generations to come."

The \$30 million investment provides immediate economic stimulus for Alberta communities, reduces the risk of wildfire, and supports forestry management. Over a two-year period, projects under FireSmart are expected to create 3,000 seasonal or 1,149 full-time one-year positions.

What is the Community Adjustment Fund?

A part of Canada's Economic Action Plan, the Community Adjustment Fund (CAF) is a two-year, \$1-billion national program that will provide an economic stimulus by supporting projects that create jobs and maintain employment in rural communities.

The fund will provide \$306-million over two years to support the most affected western Canadian communities, such as those that are heavily reliant on resource-based industries. Western Economic Diversification Canada (WD) is delivering the fund in the four western provinces.

To date, WD has invested more than \$127.6 million towards 124 CAF projects across the West.

For more details on the Community Adjustment Fund in the West, please visit:
<http://www.wd.gc.ca/eng/11269.asp>.



David Anderson, Member of Parliament for Cypress Hills-Grasslands announces CAF funding for an irrigation project in Riverhurst, Saskatchewan. WD invested a total of \$4.77 million towards expanding irrigation capacity in southern Saskatchewan.

INVESTING IN SASKATCHEWAN'S AGRICULTURE INDUSTRY

With record low rain levels in Saskatchewan, farmers have not been able to rely on rainfall to ensure the healthy growth of their crops. A recent investment under the Community Adjustment Fund will help communities weather future droughts and provide stimulus during the current economic crisis.

"Our investment is about helping our producers during these challenging times," said Member of Parliament David Anderson. "Investments such as this are creating and protecting jobs, while addressing the challenges the agriculture sector faces."

Funding for the irrigation projects will support hiring contractors to design and construct the distribution works and install pipelines and associated materials for water delivery. The individual Irrigation Districts will oversee the purchase and installation of power grids and pumps to service their respective project areas. – Together, these projects will result in 32 long-term sustainable jobs in the agriculture industry plus 118 long-term jobs associated with supporting and servicing the industry.

The Riverhurst Irrigation District Inc. and Luck Lake Irrigation District, Inc. will help strengthen economic opportunities in the communities of Riverhurst, Central Butte, Lucky Lake and Birsay, and the Rural Municipalities of Maple Bush, Enfield, Coteau and Canaan.

Federal funding of over \$3.3 million is being provided under the Community Adjustment Fund (CAF). The Saskatchewan Ministry of Agriculture is contributing an additional \$370,000.

CAF IS ON BOARD TO INVEST IN MANITOBA SHORT-LINE RAILWAY

Railcars will soon be running along the railway west of Morden, helping southern Manitoba agricultural producers save on transport costs.

Federal funding of \$1 million under the Community Adjustment Fund (CAF) is supporting the Boundary Trail Railway Company (BTRC) in establishing a short-line railway operation in the communities of Morden, Manitou, Darlingford, La Rivière, and the Rural Municipalities of Stanley and Pembina that will provide rail transport service for the region's agricultural producers and other businesses on the section of track between Morden and Binney Siding just west of Manitou.

"Federal funding was the last piece of the puzzle. We are confident that, with the Federal Government's substantial funding announced today, BTRC is positioned to make a strong contribution not only for local producers, but in the economies of the communities served by the rail line," said Kevin Friesen, President of BTRC.

The communities will benefit significantly from this project, as it will reduce transportation costs of hauling fees for farmers, thus increasing the profitability of local farm businesses. This project will create and/or sustain full and part-time employment opportunities; generate multiple commercial construction projects in several communities; create new commercial tax revenues and retain existing railway tax revenues for local governments; increase demand of materials and supplies from local businesses; enhance the profile of the local area for industries looking to locate in rural communities; and retain corporate revenues in the local community.

Up to 250 grain cars are expected to be on the line by year-end. [AW](#)

RINC AT WORK IN THE WEST

RINC FUNDS MAKES A SPLASH IN EDMONTON

Construction and redevelopment of Edmonton's oldest pool started in August 2009 to make the outdoor facility modern and accessible for people of all ages.

Federal funding of \$1 million under the Recreational Infrastructure Canada (RInC) program will create jobs and ensure that the Queen Elizabeth Pool will continue to serve Edmontonians as it has for the last 80 years

"This funding will enable us to not only build the pool, but also add many other important features that would not have otherwise been possible," said John Stobbe, President of the Friends of the Queen Elizabeth Pool Society. "The citizens of Edmonton will once again have a first class outdoor swimming facility that will be the new pride in Edmonton's River Valley."

The RInC investment supports the construction of a six-lane pool that will accommodate diving and other activities. Additional features will include easy and accessible entry for children and seniors, diving boards, a spray park and picnic area, and mechanical and filtration systems.

The new pool is expected to open in summer 2011.

Don Crocket, Board Member; John Stobbe, President of the Friends of the Queen Elizabeth Pool Society; Minister Ambrose; and Councillor Jane Batty of the City of Edmonton with an artist's rendition of the redeveloped Queen Elizabeth Pool.



RINC FUNDING BRINGS GENERATIONS TOGETHER IN NEW WESTMINSTER

For over 50 years the Century House Centre for Active Living in New Westminster, British Columbia has been providing leisure services to older adults in the area. Now, thanks to a federal investment of over \$900,000 under the Recreational Infrastructure Canada (RInC) program, the City of New Westminster will be able to upgrade and expand the centre to better serve the community.

The project will see new washrooms and site amenities added to the adjacent sports field, and overall services and utilities upgraded to accommodate new, expanded uses. A 4,000 sq. ft. addition will provide the opportunity to introduce new multi-generational activities at the Centre. Construction is expected to get underway this fall with occupancy set for 2010.

RINC FUNDS SKATE INTO YOUNG

This winter upgrades to the Young Centennial Rink will create jobs and ensure the community has access to recreational facilities.

"Our arena is a vital part of our community," said Village of Young Mayor Robert Speiser. "Without the help from the Federal and Provincial Governments, we would not be able to begin operations this winter."

Upgrades to the arena include installation of emergency lighting, electrical components, radiant heat, plumbing repairs and a fire suppression system to improve public safety for users and extend the life of the facility. This project will create two short-term jobs.

Total cost of the arena improvements is estimated at \$15,863. Federal funding is provided under the Recreational Infrastructure Canada (RInC) program. Both the Province of Saskatchewan and the Village of Young will also contribute one third of the project's eligible costs.

Minister Yelich and residents of Young celebrate RInC upgrades to Young Arena.



RINC FUNDS TOUCHDOWN IN WINNIPEG

An old field gains new life as the East Side Eagles Football Club move forward with the replacement of its artificial field turf.

The club will replace its current artificial turf. This rehabilitation will improve local recreational facilities for the residents of Winnipeg.

"The East Side Eagles Football Club is thankful for the support we are receiving for our field project," said Ian Brown, President of the East Side Eagles Football Club. "The benefits of this investment to the amateur sport community in the province, including the 37,000 plus participants that use our facility each year will be seen for years to come."

The total cost of the project is \$568,000. Federal funding of \$212,000 is provided through the Recreational Infrastructure Canada (RInC) program. The Province of Manitoba is contributing \$50,000. [AW](#)

WD is already rolling out funding under this program, investing \$42 million towards 254 RInC projects in communities across Western Canada.

For example, to date RInC program funding in the West has helped improve:

- More than 100 arenas
- Over 40 Multi-purpose facilities
- More than 30 parks, fitness trails and bike paths
- In excess of 20 Sports fields
- Over 15 Swimming pools
- And more than 30 other facilities, such as curling rinks, gymnasiums and tennis, basketball, volleyball or other sport-specific courts.

WHAT IS THE RECREATIONAL INFRASTRUCTURE CANADA (RINC)?

THE RECREATIONAL INFRASTRUCTURE

The Recreational Infrastructure Canada (RInC) program provides \$500 million nationally for projects to rehabilitate recreational facilities across Canada that can be completed by March 31, 2011.

The program is designed to provide economic stimulus and help mitigate the impacts of the global economic recession by increasing the total amount of construction activity related to recreational infrastructure. Through the rehabilitation of recreational infrastructure, this program also encourages participation in physical activity and community building.

Western Economic Diversification Canada is responsible for delivering the program in Western Canada, with the first allocation totaling almost \$54 million. The remaining funding, over the next two years, will be allocated based on the number of applications submitted to the Department. Projects will be selected on the basis of merit and construction readiness.

For more information on the Recreational Infrastructure Canada program in the West, please visit: <http://www.wd.gc.ca/eng/11264.asp>.



Mark Warawa, Member of Parliament for Langley, announces \$80,000 in funding for BCIT in May 2008.

AEROSPACE TRAINING TAKING OFF IN B.C.

FROM ITS UNIQUE AEROSPACE TECHNOLOGY CAMPUS AT VANCOUVER International Airport, the British Columbia Institute of Technology (BCIT) has become a leader in aerospace training on the West Coast. With state-of-the-art facilities and equipment, students have access to the latest in avionics hardware, software and simulators.

The Aerospace Technology Campus, which opened in 2007, is the largest aerospace training school in Canada. Spanning more than 300,000 square-feet, the campus provides enough space to accommodate 20 training aircraft and enables BCIT to train more students.

WD has made several contributions towards equipping the campus with the tools needed to train the next generation of aerospace leaders.

Most recently, WD contributed \$80,000 towards the development of specialized software for an aircraft diagnostics computer donated by Honeywell Aerospace. The equipment familiarizes BCIT students with avionics theory and helps them gain the hands-on experience needed for transitioning into the workforce.

"Technology is at the heart of education at BCIT, and this support from Western Economic Diversification will enhance the strong relationship we already have with Honeywell, one of our key industry partners," said Don Wright, President of BCIT. "This ensures that BCIT can provide leading-edge training and technology to its aerospace students."

This WD support complements previous investments that strengthen BCIT's research and training infrastructure. In 2006, WD provided \$2 million towards the purchase of FIRSTplus, a virtual control tower that features an out-of-the-window display and a radar simulator that mirrors both en route and terminal air traffic control environments. The technology can be extended to other potential applications, such as homeland security, major event security and disaster preparedness.

These investments enable BCIT to offer a wide range of certificate, diploma and degree programs, ranging from aircraft maintenance engineering to commercial pilot training and airport management. With the aerospace industry projecting a high demand for skilled graduates, these WD investments will help BCIT train the highly-skilled personnel needed to meet increased demand. [AW](#)

BCIT offers training courses in:

- Airport Operations
- Aircraft Gas Turbine (jet) Engine Technician
- Aircraft Maintenance Engineer Category E (Avionics)
- Aircraft Maintenance Engineer Category M (Maintenance)
- Aircraft Maintenance Engineer Category S (Structures)
- Aircraft Mechanical Component Technician
- Aircraft Structures Manufacturing Technician
- Airline and Flight Operations (Commercial Pilot)

INVESTMENT ENHANCES ALBERTA'S LEADERSHIP IN GEOMATICS ENGINEERING

GEOMATICS ENGINEERING – THE science of gathering, analyzing and using geographical information – is one of the fastest growing information sciences in the world. With applications that include land surveying, forestry, agriculture, oil and gas exploration, asset tracking and vehicular navigation, the commercialization of geomatics technologies play an increasingly important role in strengthening the Canadian economy.

The University of Calgary's Schulich School of Engineering is making its mark in the field. Considered one of the top Global Navigation Satellite System (GNSS) research institutions in the world, the Schulich School has more than 200 software licenses to its credit.

In September 2008, WD provided the Schulich School with \$800,000 to help develop the next generation of Global Positioning System technologies. With this investment, researchers in the Position, Location and Navigation (PLAN) group will develop advanced prototype GNSS receivers. The new receivers will take advantage of recent advances in software and network features to improve satellite accuracy and reliability.

Canada is second only to the United States in the value of global navigation system exports. Calgary, in particular, has become a focal point for much of Canada's commercial activity in the sector. [AW](#)



L to R: Dr. Alex Zahavich, Director of SAIT's Applied Research and Innovation Services; Irene Lewis, President and CEO, SAIT Polytechnic; Minister Prentice; and Devinder Shory, MP for Calgary Northeast, view an equipment demonstration in SAIT's robotics laboratory during WD's funding announcement for the SAIT Enerplus Innovation Centre.

ALBERTA FACILITY THRIVING ON INNOVATION

IT MAY HAVE BEEN BUILT ALMOST 100 YEARS AGO, BUT CANADA'S OLDEST public technical institute isn't looking to the past. The Southern Alberta Institute of Technology (SAIT) is taking advantage of the latest advances in training equipment to ensure its students will thrive in the future.

WD is working closely with SAIT to strengthen the competitiveness of small- and medium-sized businesses in the energy, manufacturing and construction sectors. In 2006, WD provided funding for SAIT's Centre for Innovative Information Technology Solutions (CIITS) to help accelerate the adoption of information technologies.

The Centre will assist companies with business and process analysis, provide a vendor-neutral training environment, and enable them to work with leading-edge information technology products and systems. The Centre's aim is to address training and development gaps for businesses in order to help increase efficiencies.

Most recently, WD committed \$4 million to develop and equip the new SAIT Enerplus Innovation Centre. With this investment, SAIT will purchase and install environmental simulation and containment control systems in its laboratories. The new equipment will help businesses translate their ideas into commercial applications by simulating and validating new technologies or refining products and processes.

Over the long term, this facility will help new products, processes and technologies come to market and facilitate the growth and expansion of a new generation of businesses. By investing a total of \$5 million towards SAIT's applied research development and commercialization activities, WD is investing in the skilled workers, innovators and business that will help drive the Western economy in the future. [AW](#)

IMPROVING OIL EXTRACTION TECHNOLOGY



Dr. Carolyn Preston, Executive Director of the Petroleum Technology Research Centre and Mr. Ernie Pappas, Vice President, Energy, of the Saskatchewan Research Council show Minister Yelich the 3-D physical model used to characterize oil reservoirs during a tour of the PTRC lab.

WITH HALF OF THE WORLD'S REMAINING petroleum reserves locked in "unconventional" sources, such as oil sands and shale, it's good business for companies to get more of their product out of the ground while reducing costs and environmental impacts.

Currently, the most common method of oil extraction uses steam, which requires considerable amounts of energy and water. However, Regina's Petroleum Technology Research Centre (PTRC) team recently began two research projects that aim to increase oil extraction efficiency and reduce strain on resources.

"The development of advanced oil extraction technologies can improve the overall efficiency of the extraction process, while mitigating environmental impacts and reducing the overall cost for industry," said Minister of State Yelich. "The commercialization of these technologies can have a significant, long-term impact on the Canadian economy and solidify the West as a leader in innovation."

The first project seeks to eliminate the use of steam in the extraction of oil sands bitumen by using solvents rather than water. Solvent vapour extraction technology injects solvents (like propane and butane) into a reservoir to facilitate oil extraction.

The process does not require heating to extract the oil, so there is no water used and no CO₂ produced. If this technology proves viable and is applied to all steam-assisted oil extraction operations in Canada, it could reduce CO₂ emissions by 85 million tonnes over the life of bitumen and heavy oil extraction in Canada. That's equivalent to the emissions produced by about 850 million barrels of oil.

The second project will examine the possibility of re-injecting flue gas into oilsands reservoirs for improved oil recovery and reduced greenhouse gas emissions. Most flue gas produced during the extraction process is burned off at oil recovery facilities and vented into the atmosphere, thus increasing greenhouse gas emissions.

"The continued support of the Government of Canada in our enhanced oil recovery research is instrumental in helping the oil industry monetize increasingly more difficult to access reserves," said Dr. Carolyn Preston, Executive Director of the PTRC. "They are also providing the financial support to develop technologies that will mitigate environmental impacts."

With the current recovery rate of heavy oil reserves about 10 per cent and the value of current unrecoverable oil resources estimated at \$1-trillion, improved oil extraction technologies can have major economic impacts for the West and Canada. An efficiency increase of only 1 per cent is estimated to yield 350-million additional barrels of oil worth approximately \$17-billion for Saskatchewan and Canadian economies.

The projects, which run through 2011, received a total of \$2.5 million in funding from WD and Natural Resources Canada in February 2009. [AW](#)

ADVANCED COMPUTING TO IMPROVE CANADIAN RESEARCH

AT THE UNIVERSITY OF MANITOBA, A NEW HIGH PERFORMANCE COMPUTING (HPC) facility is coming online to help meet the growing demands of researchers. In recent years, the need for HPC has increased because of the technology's wide range of applications.

HPC is an integrated computing environment used in science, engineering and business. It offers researchers a way to simulate weather patterns, model the behaviour of lifesaving drugs, and perform complex astronomical calculations. More recently, HPC has been used to perform calculations in emerging fields, such as medical sciences, transportation and financial operations.

The new HPC system will reduce the time it takes to perform complex calculations from weeks and months to hours or days, giving the university's researchers a competitive edge. Once online, the facility will be able to simulate the affects of radiation on the body and model the efficiencies and capabilities of future infrastructure.

The WD investment of \$2.1 million will be used to construct a special facility to house the new computer, enabling the University of Manitoba to retire its current HPC system, Polaris.

"Advances in science and technology are essential to strengthen the competitiveness of Canada's economy," said Minister of State Yelich. "Our investment in this High Performance Computing facility will enhance the quality of Canadian research in multiple fields of study and lead to the development and commercialization of new technologies."

The computer will also be used by the 14 universities that form the Western Canada Research Computing Grid (WestGrid) to study mathematical challenges in fields such as transportation and finance. It will also be used by Compute Canada, which coordinates academic supercomputing in Canada and is working to ensure Canada reaps the internationally competitive benefits of supercomputing over the next 15 years.

MP Rod Bruinooge, Minister Yelich, Minister Toews and Minister Fletcher with University of Manitoba officials following the HPC announcement.

WHAT KIND OF RESEARCH CAN BE DONE WITH HPC?

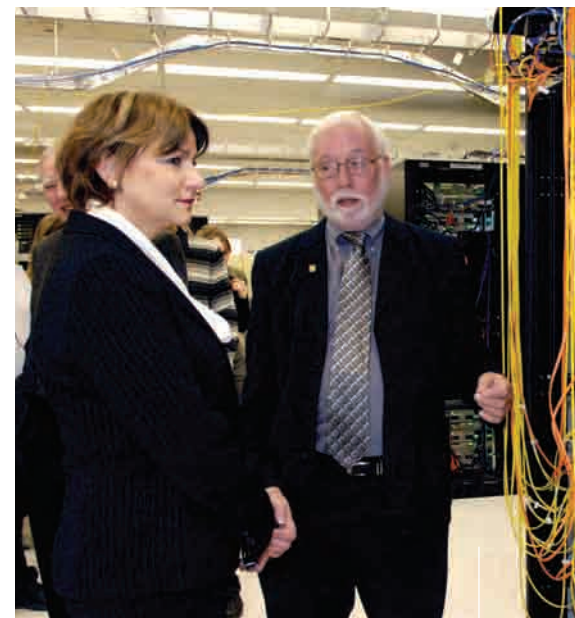
HPC has a wide range of applications, but there are several innovative projects that will be carried out at the University of Manitoba. For example, researchers at CancerCare Manitoba will use the computer to simulate how diagnostic radiation travels through the body. The resulting visualizations could lead to fundamental changes in how patients are diagnosed and treated in the future.

The University's Department of Electrical and Computer Engineering will use HPC to model a high-voltage electrical grid. The simulated testing of the grid would enable researchers to calculate and manage the irregular supplies of power expected to flow from renewable sources of electricity, such as wind turbine farms and solar arrays. Similarly, the Faculty of the Earth and Environment will use the HPC to develop better weather forecasts for those same wind farms.

HPC can be used as primary driver of innovation and, with its wide range of practical applications, represents a significant economic opportunity to help bring innovative products, technologies and services to market. [AW](#)



Mr. Gerry Miller, Executive Director, Information Services & Technology, shows Minister Yelich around the University of Manitoba's HPC Facility.



COMMERCIALIZING CLEAN TECHNOLOGIES IN THE PULP AND PAPER INDUSTRY



Design of the Nexterra gasification system. Photo courtesy of Nexterra.

CANADA'S PULP AND PAPER INDUSTRY HAS CHANGED DRAMATICALLY OVER the past few decades, adapting to changing markets and using innovative ideas and technologies to increase efficiencies and productivity. Moving through today's volatile economic climate, it is just as important as ever for industry to reduce operating costs and increase long-term sustainability.

Based in Vancouver, the not-for-profit FPInnovations is taking on a project that hopes to revolutionize the pulp and paper industry in a different way – by minimizing the energy, and emissions needed to make paper.

Nexterra's gasification system is the world's first bio-gas powered pulp and paper boiler. If successful, the system promises to dramatically reduce operating costs for industry, while mitigating fossil-fuel consumption and greenhouse gas emissions in a wide variety of industrial applications.

In January 2009, WD and Natural Resources Canada announced an investment of more than \$2.8 million toward the development and commercialization of this new technology. WD's investment of almost \$1.2 million will enable FPInnovations to conduct commercial demonstrations of the system across Western Canada.

The commercialization of this new technology supports WD's goals of encouraging innovation and enhancing the productivity of Canada's traditional industries. Currently, boilers in the forestry industry use natural gas to produce the steam and water necessary to make paper products. The Nexterra gasification system would be the first in the world to demonstrate the operation of an industrial boiler using a synthetic gas to produce paper.

Already, the Nexterra system is slated for a Kruger Products Ltd. tissue mill in New Westminster, B.C. The boiler will use "syngas" generated from locally-sourced wood residue in place of natural gas. Once the system is in place, Nexterra should lower the mills operating costs and displace enough natural gas to heat 3,500 homes in Canada for a year.

Nexterra will also reduce greenhouse gas emissions from the plant by more than 22,000 tonnes per year, the equivalent of removing nearly 5,500 cars off Canadian roads.

"Our new Westminster mill is situated in an urban area, so we needed the cleanest technology available, and in a challenging economic climate, we also needed the most cost-competitive," said Frank van Biesen, VP Technology Kruger Products Ltd. "Nexterra's biomass gasification system addresses both challenges, significantly reducing both greenhouse gas emissions and energy costs." ^{AW}

Minister of State Yelich meets Erol Karacabeyli of FPInnovations while touring the FPInnovations Centre January 2009.



FPInnovations

FPInnovations works towards optimizing the forest sector value chain by developing new products and market opportunities within a framework of environmental sustainability. It employs more than 600, with research laboratories and technology transfer offices throughout the country.

For more information, visit: <http://www.fpinnovations.ca/>.



COLLABORATING FOR SUCCESS

STRENGTHENING
AEROSPACE
INNOVATION IN
WESTERN CANADA

Photo courtesy the Department
of National Defence

THE ABUNDANCE OF NATURAL RESOURCES THAT BLANKET WESTERN CANADA'S vast landscape has always been crucial to the region's economic growth and prosperity. While these resources are a key economic driver, Western Canada has been turning to the sky and the stars to diversify its economic base. Today, technological innovation in the aerospace sector is quickly becoming the hallmark of the western economy.

Currently, Western Canada's thriving aerospace sector boasts annual revenues of more than \$4 billion, and employs 15,000 people, with the majority providing engineering, technical or management expertise. Many of the 450 companies involved in aerospace in Western Canada are now developing a global customer base that spans the commercial aviation, defence and security, and space market segments.

This progress complements a nationwide trend. Overall, Canada's aerospace industry has become the fourth largest in the world, next to the United States, Britain and France.

To help strengthen Western Canada's aerospace industry, Western Economic Diversification Canada works in partnership on projects that enhance aerospace innovation and training in Western Canada.

The department also partners with the Western Aerospace Alliance (WAA) to identify national and international procurement opportunities for Western Canada's aerospace sector by facilitating business development opportunities. It also supports WAA's participation in key industry tradeshow.

In 2007, WD organized a trade mission to the United States, providing Canadian companies the opportunity meet with representatives at Boeing and Lockheed Martin and discuss potential collaboration. More recently, and thanks in part to their new familiarity with western Canadian firms, Boeing announced contracts worth more than \$157 million to companies in Western Canada, including Avcorp for 747 light sheet metal assemblies; Hydratech Ltd. for direct work on the Canadian Forces C-17 Globemaster fleet; and SED for feeder link Earth stations and telemetry. In 2008, WD was represented at the Farnborough International Air Show. In 2009, the Department worked in partnership with the WAA to help coordinate WAA's presence at the Paris Airshow.



WD plays a key role in helping Western companies take advantage of the federal government's Industrial and Regional Benefits (IRB) policy. The policy requires contractors to do business in Canada, ensuring Canada gets extra value for money spent in the form of industrial and regional investments.

Photo courtesy of the Department of National Defence.

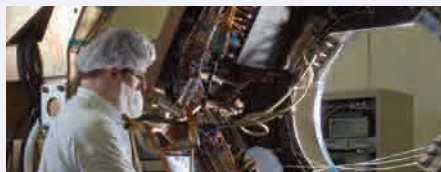
AEROSPACE INNOVATION ACROSS THE WEST



SASKATCHEWAN: NATO FLYING TRAINING IN CANADA

In partnership with industry, the federal government is providing world-class training to military pilots from Canada and around the world at the NATO Flying Training in Canada (NFTC) program in Moose Jaw, Saskatchewan and Cold Lake, Alberta.

(Photo Courtesy of NFTC.)



MANITOBA: SATELLITE DESIGN AND DEVELOPMENT

Bristol Aerospace Ltd. in Winnipeg was selected by the Canadian Space Agency to design and develop the MAC-200 small satellite bus, a unique technology adaptable for different types of missions. The satellite will launch in 2009 as part of the Cassiope mission, which will conduct space environment research and an advanced telecommunications technology demonstration.

(Photo courtesy of Bristol Aerospace Ltd.)



BRITISH COLUMBIA: RADARSAT CONSTELLATION MISSION

MacDonald, Dettwiler and Associates Ltd. (MDA) is working on the RADARSAT Constellation Mission (RCM), a constellation of three identical spacecraft that will ensure C-Band data continuity for RADARSAT-2 data users. The RCM will support Canadian efforts to assure sustainable development, better manage natural resources and ecosystems, and enforce security and sovereignty in the Canadian Arctic.

(Photo courtesy of MDA.)

WESTERN CANADA: HOME TO A THRIVING AEROSPACE SECTOR

Western Canada's aerospace industry generates annual revenues of more than \$4 billion, and employs some 15,000 people, most of whom provide engineering, technical or management expertise. Overall, Canada's aerospace industry has become the fourth largest in the world, next to the United States, Britain and France.

WESTERN CANADA'S AEROSPACE ADVANTAGES

Western Canada is a cost-competitive and trade-friendly investment destination. It benefits from Canada's business, labour and benefits costs, which are the lowest among the G7 countries.

Canada's solid research and development infrastructure offers additional advantages with Canadian-based aerospace firms annually investing more than \$1 billion in research and development. Western Canada's success in aerospace is based on a wealth of competitive strengths. Additionally, western Canadian aerospace companies enjoy proven expertise and leadership in:

- aircraft maintenance, repair and overhaul,
- composites innovation,
- unmanned vehicle systems,
- avionics,
- satellite communications and remote sensing, and
- training and simulation.



Photo courtesy of StandardAero.

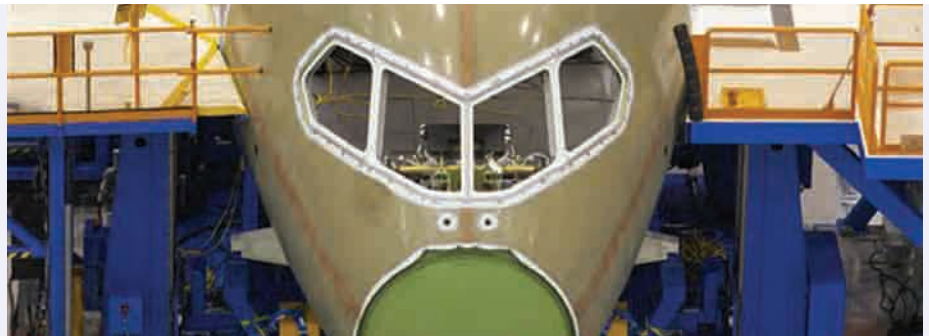


Photo courtesy of Hammer Mechanical.

MANITOBA

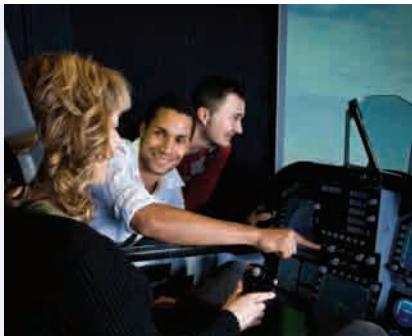
Manitoba is home to the largest aerospace sector in Western Canada and is the third largest provider of aerospace goods and services in Canada. Four world-class firms anchor the sector: Aveos Fleet Performance Inc., Bristol Aerospace Limited, Boeing Canada and Standard Aero. The province is also home to 23 established regional and national firms that specialize in tool and dye making, precision sheet metal fabrication, plating and coating and electronics.

- Standard Aero operates one of the world's largest independent small turbine engine repair and overhaul companies.
- Bristol Aerospace Ltd. designs, manufactures and repairs engine units, metal and composite parts, and also designs and manufactures small satellites and rocket systems.
- Boeing Winnipeg, the largest aerospace composite manufacturer in Canada, designs, develops and fabricates complex composite structures and sub-assemblies.
- Aveos is a large well established maintenance repair and overhaul facility for narrow body commercial aircraft and has a capability and capacity to complete maintenance, repair and overhaul (MRO) work for the Regional aircraft sector.

BRITISH COLUMBIA

British Columbia's global customer base spans the commercial aviation, defence and security, and space market segments and has demonstrated capabilities in component manufacturing, assemblies, sub-assemblies, machined parts and systems. The province's network of high technology companies also provides a wealth of expertise in remote-sensing, satellite communications, complex robotics, 3-D simulation technology and advanced aerospace systems and sub-systems.

- Cascade Aerospace, based in Abbotsford, is one of North America's top 10 maintenance, repair and overhaul (MRO) organizations.
- Avcorp Industries in Delta is a leading supplier of primary and secondary flight structures, including stabilizers, flight control surfaces, fuselage components and interior panel assemblies.
- NGRain provides 3D equipment simulation solutions for training and maintenance applications to all branches of the Canadian and United States militaries, their system integrators, and manufacturers. Supporting Lockheed Martin's Joint Strike Fighter program, NGRain's 3D Visual Damage and Repair Tracking software will be used by F-35 maintainers to document aircraft damage and repairs.
- MacDonald, Dettwiler and Associates Ltd. (MDA) is a space contractor with over 40 years of experience in the development of innovative space systems. The company delivers turnkey, fixed-price earth observation, space surveillance, space science, and information delivery satellite missions. Complementing its mission capability is its heritage in the design, development and supply of spacecraft payloads and subsystems.
- Kelowna Flightcraft operates scheduled courier service aircraft, line stations across Canada, heavy maintenance facilities and a military flight training facility



CH-149 Cormorant. Photo courtesy of the Department of National Defence.

ALBERTA

At the core of Alberta's globally competitive aerospace sector are five key sub-sectors: robotics and unmanned vehicle systems; defence electronics; space sciences, geomatics, and navigation systems; maintenance, repair, and overhaul; and logistic support to the military.

- Aero Aviation and 25 other Alberta firms provide skilled aircraft maintenance, repair and overhaul services for military and commercial aircraft, including: avionics, airframes, engines, equipment and component parts, interior/exterior refurbishing.
- Alberta is proud to host companies such as NovAtel, Keo Scientific, Iunetus, BlueSky, Hyperion, and Obsidian as examples of innovative high-tech solution providers for the defence and space industries.
- Meggitt Training Systems Canada offers advanced training solutions for military, law enforcement, and security agencies around the world.
- The Canadian Centre for Unmanned Vehicle Systems (CCUVS) is a national change agent whose purpose is to facilitate the sustained, profitable growth of national and international unmanned vehicle systems sector. CCUVS is engaged in several activities and delivers a range of services to achieve this aim.
- Lighter than Air is an emerging aerospace niche sector still in the R&D phase, but showing great potential as heavy lift air vehicle with industrial and commercial applications.

SASKATCHEWAN

Saskatchewan's aerospace industry specializes in satellite-based communication system products and services for aerospace and defence industries in Canada and around the world. It is also home to numerous companies offering aviation engineering and manufacturing solutions. In addition, Saskatchewan is home to NATO Flying Training in Canada (NFTC).

- SED Systems is a leading provider of satellite communication systems for global clients, including Intelsat, Boeing, Hughes, Lockheed Martin, WorldSpace, the Canadian Space Agency and the European Space Agency.
- Award-winning Draganfly Innovations has developed several unmanned aerial vehicle systems that fulfill a variety of civilian and military functions.
- Scientific Instrumentation Limited specializes in the research and development of advanced sensor technology. Its engineers and technologists can take a project from conceptualization through prototyping to full production.
- Saskatchewan's NFTC offers undergraduate and post-graduate advanced military jet pilot and tactical training. Canadian and NATO Qualified Flying Instructors (QFIs) provide flight training, while private industry performs aircraft maintenance and provides simulator and classroom instruction.

NORTHERN MANITOBA TO GET NEW STATE- OF-THE- ART COLD WEATHER TESTING FACILITY

ALREADY KNOWN AS MANITOBA'S "HUB OF THE NORTH", THE CITY OF THOMPSON is quickly earning a reputation as the hub for cold weather testing and research in North America. For years, major automobile manufacturers have taken advantage of Thompson's unique geographic location, strong infrastructure and subarctic climate to conduct comprehensive cold weather testing on their vehicles. Now aircraft are getting onboard.

To capitalize on Western Canada's aerospace expertise and Thompson's cold weather, WD has worked in collaboration with aerospace industry partners and the Province of Manitoba to establish the Canadian Environmental Test Research and Education Centre (CanETREC). The facility is scheduled to be operational by August 2010 and will be the world's most advanced, large engine, cold weather testing and research facility.

Operating year-round, CanETREC will specialize in supporting engine icing certification and research and development of new, more efficient and advanced aerospace designs. In addition this testing technology will be applicable to other sectors such as the bus and automotive manufacturing industry.

MDS Aero Support Corporation will manage the facility, which is being built by the Global Aerospace Centre for Icing and Environmental Research Inc. (GLACIER). This state-of-the-art facility is a new joint venture between Rolls-Royce Canada Limited and Pratt & Whitney. The National Research Council Canada (NRC) will supply, own and operate the icing system in GLACIER. It will also be partnering with CanETREC.

CanETREC's geographic location benefits from Thompson's consistently cold weather and an expanded window for testing. During off-peak testing periods, CanETREC will focus on research and education to drive new aerospace designs. Over the long-term, the facility will expand its research infrastructure and develop expertise in noise and emission reduction, and alternative fuels and lubricants.

WD's \$8.4 million investment will help establish the CanETREC facility and will support leading-edge R&D in aerospace. The facility will also offer a wide variety of aeronautical sciences and aviation maintenance training programs through partnerships with post-secondary institutions.

With large-engine testing accounting for 22 per cent of annual global icing certification business and the aerospace industry conservatively estimating the need for 21,000 engines, including maintenance routines, CanETREC is poised to become a world leader in cold weather testing and certification and research. [AW](#)

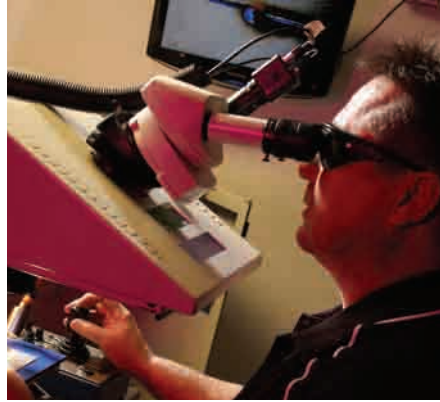
CANETREC WILL OPERATE YEAR-ROUND AND OFFER A VARIETY OF DIFFERENT SERVICES, INCLUDING:

- engine ingestion testing;
- cold soak testing;
- endurance testing; and
- blade-off certification.



Minister Vic Toews and Premier Gary Doer with other speakers at the CanETREC funding announcement in Thompson, Manitoba April 2009.

CUTTING-EDGE TECHNOLOGY KEEPS MANITOBA AEROSPACE SECTOR COMPETITIVE



Laser welding equipment recently installed in the Centre for Aerospace Technology Training facility used by Red River College and StandardAero. Photos courtesy RRC.

CUTTING-EDGE EQUIPMENT IS CRITICAL to competitiveness in the manufacturing sector, and particularly the aerospace industry. In Winnipeg, Red River College (RRC) is equipping its Centre for Aerospace Technology and Training (CATT) to train the next generation of aerospace professionals.

The CATT, located at the College's Richardson International Airport campus, will extend the advanced manufacturing training already developed by Red River College to include automated fabrication, robotic welding and advanced metallic coating processes. These processes represent state-of-the-art technologies for aerospace manufacture, maintenance, repair, and overhaul operations.

Specifically, WD funding of \$3 million equipped the CATT with advanced laser welding and automated laser cladding and cutting tools. In addition to these tools, RRC will also install a hot section coating system, which is used to manufacture aircraft engine turbine blades. The Province of Manitoba provided an additional \$1.2 million through the Canada-Manitoba Economic Partnership Agreement.

"This investment helps strengthen Manitoba's position as an aerospace leader by providing students and industry the equipment needed to train skilled workers and promote the development of new technologies," said Minister of State Yelich.

Through this investment, students will

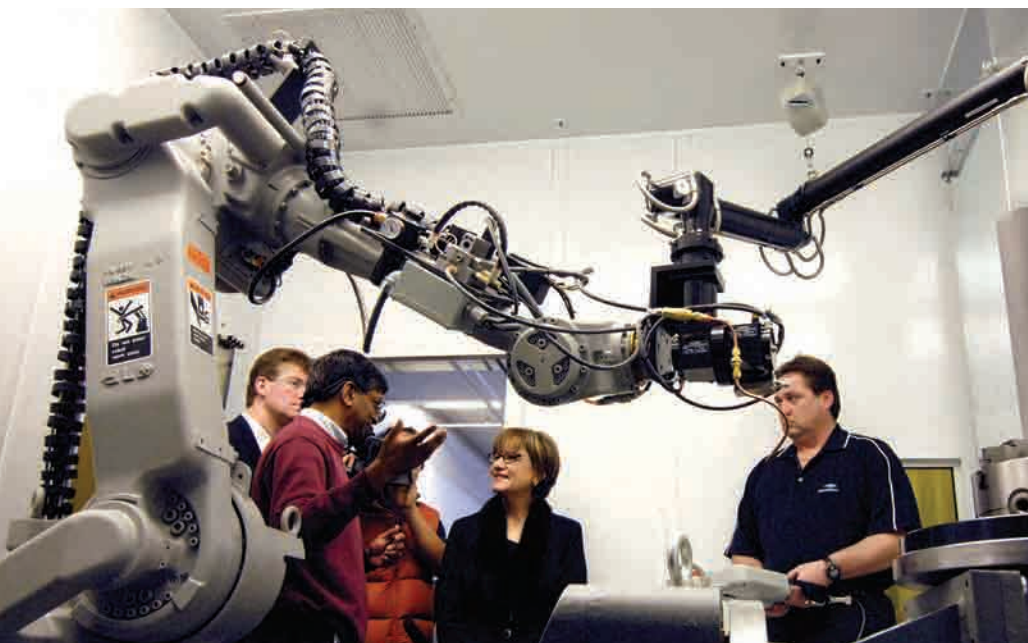
train in a high-tech industrial laboratory and factory setting that will also be used for pre-commercial research with industrial partners Stevenson Aviation and Standard Aero.

"Red River College plays a vital role in building the Manitoba economy, and this facility will allow us to develop even more advanced training and applied research partnerships to support the growth and stability of the manufacturing sector," said Dr. Jeff Zabudsky, President of Red River College.

The aerospace industry is currently experiencing a shortage of qualified personnel and, with this additional equipment, CATT will be able to offer advanced aerospace diploma and degree programs training to help address

Red River College

RCC is Manitoba's largest institute of applied learning, with more than 32,000 full-time, part-time, and apprenticeship students. Among the most popular offerings are the aircraft maintenance engineering apprenticeship and diploma programs.



NAIT EXPANDS TRADES TRAINING CAPACITY

WHEN IT COMES TO MEETING THE growing demand for labour, Western Canada has a valuable ally.

NAIT (formerly the Northern Alberta Institute of Technology) – the Edmonton-based training powerhouse that already trains more than half of Alberta's, and roughly 17 per cent of Canada's, trades people – is undertaking an aggressive ten-year plan to take its impressive results to the next level.

Their rolling Workforce Development Plan, expected to cost \$1.5 billion, will create a world-class technical institute that will accommodate a 25 per cent increase in capacity – from the current level of 86,500 students to an estimated total of 108,000 students.

To raise the money for the much-needed expansion, NAIT is working in collaboration with its industry and government partners, including WD.

PARTNERSHIPS THE KEY TO TRAINING TOMORROW'S SKILLED WORKFORCE

Such partnerships are the core of win-win solutions says WD Minister of State Lynne Yelich. "NAIT's approach is a great example of what can be accomplished when industry, post-secondary institutions and different orders of government work together to improve our economic competitiveness and the technology skills of our workforce."

Much of the expansion activity is focused on the NAIT Centres for Apprenticeship Technologies, a series of facilities that train apprentices in some of the country's fastest-growing occupations. NAIT is serving close to 16,000 apprentices in 2007-08, up from almost 13,000 the previous year.

In 2008, WD invested \$2.2 million towards the purchase of equipment for labs located within the NAIT Sandvik Coromant Centre for Machinist Technology. The \$10 million centre boasts five labs, including a Computer Numerical Control Machinist Lab, individual Machinist Labs for each of the four years of apprenticeship and a Metrology Lab, making it the best-equipped machinist training facility in the country. The new centre, which opened in January 2008, increases training capacity by 50 per cent, to 660 students a year.

WD also invested \$3.8 million in specialized high-end equipment for the NAIT Spartan Centre for Instrumentation Technology, which opened in September 2007. With 11 instrumentation labs, \$6.5 million worth of new equipment, an 80-seat lecture theater with state-of-the-art videoconferencing technology and 11 smart classrooms, the Spartan

Centre increases capacity by 61 per cent. The hands-on training provided at the centre ensures that students learn to work safely and efficiently in industries that are increasingly automated and require advanced problem-solving skills.

A third facility, the NAIT Petro-Canada Centre for Millwright Technology, has received more than \$640,000 from WD. Seven state-of-the-art labs, six smart classrooms and \$16 million worth of new equipment provide competency-based training on a scale unsurpassed anywhere in the world, according to Millwright Program Chair, Vern Gorman. The centre is now able to accommodate 700 students, a 25 per cent increase.

WD's investments in NAIT – more than \$9.8 million in total since 2006 – are an important means of achieving our goal of improved business competitiveness and increased productivity. By creating a new generation of skilled workers, armed with the knowledge of leading-edge technologies and applications, NAIT is creating a competitive edge for Western Canada in the global market. [AW](#)

Sandvik Coromant representatives with Dr. Sam Shaw (centre front yellow jacket) and Laurie Hawn, MP for Edmonton Centre (centre back) in the Computer Numerical Control (CNC) Lab in the NAIT Sandvik Coromant Centre for Machinist Technology. Photo Credit: Courtesy of NAIT



FOSTERING INTERNATIONAL OPPORTUNITIES IN SASKATCHEWAN

FOR OVER A DECADE, SASKATCHEWAN'S small- and medium-businesses have had help seeking out new business opportunities from the Saskatchewan Trade and Export Partnership (STEP). Now the non-profit corporation has another tool at its disposal – a team devoted to helping exporters bid on international contracts.

In April 2009, WD announced \$319,000 in support for STEP to establish a new unit responsible for coordinating marketing and contract management with international financial institutions for the benefit of western Canadian companies. The WD investment will be matched by a similar contribution from STEP.

“With STEP’s knowledge of Saskatchewan’s products and services, and its contacts with international financial institutions, Saskatchewan firms will be better able to bid and compete for international contracts resulting in increased prosperity for Saskatchewan businesses,” said Minister of State Yelich.

Established in 1996 as a partnership between provincial exporting organizations and the provincial government, STEP has a mandate to coordinate provincial exporting efforts, particularly among small- and medium-sized enterprises.

Over the past 10 years, STEP has completed a number of successful projects, with support from WD, that increase business competitiveness and strengthen the economy. With the help of STEP, Saskatchewan firms are better able to compete for international contracts that result in increased prosperity for provincial businesses. [AW](#)



Gavin Semple (Brandt Group of Companies), Brian McCready (Canadian Manufacturers & Exporters), MP Ray Boughen and Provincial Minister Lyle Stewart attend the announcement of funding for the Saskatchewan Manufacturers' Resource Centre.

SASKATCHEWAN BUILDS ON MANUFACTURING SECTOR

SASKATCHEWAN HAS TAKEN ENORMOUS STRIDES TO DIVERSIFY ITS ECONOMY in recent years. Although maintaining that momentum in today's challenging economic climate isn't easy, a new federal-provincial initiative will help improve the competitiveness and productivity of the manufacturing sector.

In March 2009, WD and the provincial governments made a joint announcement to invest nearly \$200,000 to establish a manufacturers' resource centre in Saskatoon.

The funding will provide industry training in manufacturing practices, support the human resources needs of Saskatchewan manufacturers, and increase the productivity and competitiveness of provincial manufacturing firms.

“The investment and commitment to manufacturing in Saskatchewan by the federal and provincial governments will assist manufacturers in their journey to be competitive in the global economy and expand their exports in the world,” said Brian McCready, Saskatchewan Vice President of Canadian Manufacturers & Exporters.

In January of 2009, in partnership with the Government of Saskatchewan, WD announced an investment of \$50 million over the next four years to renew the Western Economic Partnership Agreement (WEPA), supporting long-term economic growth and competitiveness in Saskatchewan. [AW](#)

INVESTING IN TRADE OPPORTUNITIES

Bob Wilds, Managing Director, GVGC; Minister Stockwell Day; MP Alice Wong; and MP Cathy McLeod following the Greater Vancouver Gateway Council funding announcement in July 2009.



WESTERN ENTREPRENEURS HAVE A wide-range of innovative products to bring to market, but, unfortunately, do not always have the resources to identify and connect their products to foreign markets. That's why WD is bringing the world to the West.

In July 2009, WD made an investment of \$230,000 toward the Greater Vancouver Gateway Council – a non-profit organization focused on positioning Greater Vancouver as the Gateway of Choice for North America – for a series of studies focused on the air cargo trade.

"Our Government is working to open new markets for Canadian business, and strengthening British Columbia's

trade corridors is part of this ambitious trade agenda," said Minister Day. "We're building a more competitive economy and creating new jobs and opportunities in the region."

As the first of their kind, the studies will provide local airports and industry with the information required to increase air cargo trade through B.C.'s Lower Mainland and Fraser Valley, and support efforts to translate cargo market opportunities into positive economic impacts for the region.

Until recently, Pacific Gateway initiatives have focused on marine, road, and rail modes. Air cargo is important to the Gateway and has often been the forgotten mode. The potential growth in

this industry will benefit not just to the Vancouver International Airport or the Abbotsford Airport, but also logistics and support firms (trucking, warehousing, etc.), their customers (manufacturers, purchasers, etc.), and the region more broadly. Increased air cargo capacity can also have an impact on investment attraction and tourism.

This project will help build on the Council's proven track record of supporting Canada's position in the Gateway economy. [AW](#)

INVESTING IN THE PRODUCTIVITY, COMPETITIVENESS AND POTENTIAL OF THE WEST

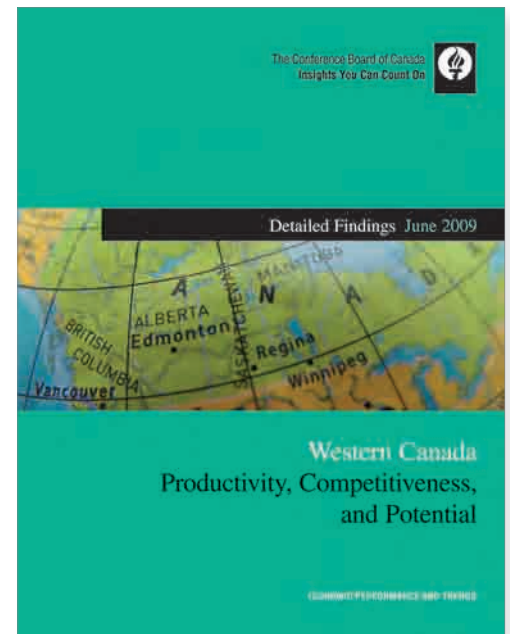
CANADA'S WESTERN PROVINCES MUST FOSTER INNOVATION AND ENCOURAGE the adoption of new technologies in order to help stimulate productivity, says a new report by the Conference Board of Canada. Released in June 2009, *Western Canada: Productivity, Competitiveness and Potential* explores the linkages between productivity growth and increased investment towards innovation and new technologies.

Greater investment towards new technology in the West will be a key driver behind future productivity. The report notes that the United States' investments in research and development, and venture capital investment, currently put Western Canada at a competitive disadvantage.

To stay competitive over the long term, western provinces must improve organizational practices, increase global integration, strengthen human capital, and improve the business environment. In addition, continued expansion of internal trade agreements would help create a business environment more conducive to investment, innovation, and increased productivity.

The report concludes that the West has great potential, but the four Western provinces must proactively design and implement solutions to competitiveness and growth challenges. **AW**

The full report: *Western Canada: Productivity, Competitiveness and Potential* can be found online at: <http://www.conferenceboard.ca/documents.aspx?did=3122>



LEARNING ABOUT FREE TRADE ZONES

THE WORLD IS COMING CLOSER together and nowhere is this more evident than in the tremendous expansion of free trade zones. The International Labour Organization estimates that in 1975, about 800,000 people were employed in free trade zones. By 2007, that number had ballooned to 63 million people.

Free Trade Zones (FTZ) are typically defined as secured areas where goods can be stored or processed without customs duties, excise or inventory/other taxes. Although free trade zones around the world differ from one another, they generally have: advanced infrastructure, land, office space, utilities, logistics services, business services, and other similar facilities.

FTZ's are also characterized by flexible regulations, meaning access to streamlined customs processes and reduced bureaucracy. They are typically export oriented, usually catering to export corporations that produce goods destined for foreign countries. Branding and promotion is a feature of these zones. They are normally branded a tax and duty free/neutral environments for trade activity.

In October 2008, WD published a Free Trade Zone Study produced by Deloitte & Touche to review and identify the similarities and differences of select free trade zones around the world.

The review encompassed 11 free trade zones, with five located in the United States. For each zone, the report

provides an overview, description of key infrastructure, and a summary of the key sectors in operation.

The Phoenix FTZ, for example, exhibits many strong characteristics. Its four key sectors – aerospace manufacturing, pharmaceuticals, food, and electronics – benefit from a sound infrastructure base with access to road, rail, and air transportation. The Phoenix FTZ is supported by an established financial network that provides a wide range of financial services in the area.

According to the study, free trade zones can help stimulate economic diversification, attract foreign direct investment and create employment. **AW**



Dr. Ian Smith (above) is the Director of NRC-IBD.

NRC-IBD's mandate is perform world-class research in noninvasive medical diagnostics and transfer this knowledge to the health community and commercial sector. The results of this work improves medical diagnosis, treatment and prognosis for patients, and produces products and expertise that help stimulate the Canadian economy.

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WINNIPEG FORGES WORLD-CLASS INSTITUTE

SINCE ITS INCEPTION IN 1992, THE NATIONAL RESEARCH COUNCIL OF CANADA'S Institute for Biodiagnostics (NRC-IBD) has become a leader in diagnostic technology.

NRC-IBD focuses on researching and developing noninvasive medical devices and techniques to increase prospects for prevention, earlier diagnosis, improved treatment and prognosis of diseases. Also intrinsic to the Institute's work is the transfer of technology to the private sector – stimulating economic activity and creating jobs through technology commercialization.

From its headquarters in Winnipeg, the Institute's research network now reaches around the world, combining collaboration and expertise with opportunities to establish affordable and accurate diagnoses for diseases that touch everyone. Today, medical instruments developed at NRC-IBD are used around the world and the its seven spin-off companies have achieved sales valued at \$15 million to date.

Among NRC-IBD's most lauded achievements is the development of a movable magnetic resonance imaging (MRI) system that allows surgeons to do non-invasive scans before, during, and after surgery.

Most recently, Dr. Ian Smith, Director General for the Institute, has been named an officer of the Order of Canada. Dr. Smith has been one of the primary drivers behind the of the Institute's work since it was established with the help of \$7 million towards equipment from Western Economic Diversification Canada.

Dr. Ian Smith was named to the Order late last year for his leadership in the advancement, development and commercialization of Canada's diagnostic technologies. He has been a driving force in the development of technologies that reduce the invasiveness of surgical procedures, which improves the effectiveness of treatments and therapies while limiting possible complications. His specialty is early diagnosis of cancer using MRI scanners and spectroscopy. He began his career at NRC in 1967.

"It is a privilege to share in the success of the NRC Institute for Biodiagnostics and the Winnipeg biomedical cluster," said Dr. Smith upon receiving the appointment, which is among the highest honours available to Canadian civilians. "I feel a great sense of satisfaction in knowing that I have contributed to improving the health of Canadians and helped to build a stronger medical devices industry that brings greater wealth and prestige to Canada and NRC." [AW](#)

