

Information & Communications Technology

You've got it made in Manitoba





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BRING IT ON

Let us help you make it happen.

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As the most powerful source of change in today's economy, Information and Communications Technology (ICT) is a true enabler to innovation. It crosses all other industry sectors, defying strict definition, and blurs the lines between industries across the board, from telecom to IT services to digital media to health.

Globally, it is driving an increasingly competitive market where the value of knowledge-based products greatly exceed the cost of the physical materials from which they are made. In Canada, the ICT sector has grown almost three times as fast as the Canadian economy since 1997.

Through this change, one thing remains constant: innovation, productivity and export orientation are fundamental to future economic success. With an exceptional location, exceedingly low operating costs, a highly educated and loyal workforce and diverse economy, you've got it made, in Manitoba. Manitoba offers a true ICT culture, from qualified human resources to capital, robust infrastructure to innovative R&D, collaborative industry interaction to a winning business climate.

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Manitoba gets it

It's the place

Location, location, location. Manitoba sits at the heart of North America and is a main link in the Mid-Continent Trade Corridor. It is a central transportation and distribution hub with cost-effective transportation links and inter-modal facilities that provide shipping by air, road, rail and sea. The North American central time zone is an asset to conducting business coast to coast and our 24-hour airport provides direct and frequent access to major Canadian and U.S. hubs such as Chicago, Minneapolis and Denver.

It's the people

Canada has the most educated workforce in the world. In Manitoba, the workforce is young, multilingual and accessible at favourable wage rates. 81.5% of Manitoba ICT workers have post-secondary educations and nearly a third have university degrees. Over 65% of IT workers are 25 to 44 years old.

It's the partnership

As stakeholders in the success of the ICT sector, Manitoba's industry, academia and government work together on issues that are critical to ensuring that our collaborative ICT culture continues to thrive; from workforce to infrastructure to R&D to education. Additionally, as an extension of your own business, we can assist you in evaluating your business case, meeting and coordinating suppliers, decision makers and professionals in real estate, capital and more. We work with you to ensure that your venture successfully meets all of your business objectives.

It's the connection

Manitoba has an advanced and competitive telecommunications infrastructure with high-speed access as the norm throughout the majority the province. With the third largest concentration of network switches, more than 75,000 strand kilometres of fibre and 100% digital switching technology, Manitoba provides the highest quality standards in network integrity, flexibility and reliability. Connectivity to U.S. and international markets is fast, abundant and affordable.

It's the cost

Canada is THE best place to do business according to the 2004 KPMG Competitive Alternatives Study, the CEO's Business Guide to International Business Costs. In fact, KPMG ranks Winnipeg, Manitoba among the lowest of cities in 11 leading industrialized countries for the business costs associated with R&D, software and corporate services operations. Our affordable labour, low cost of living, highly competitive office and land costs, low construction costs AND having the lowest electricity costs in North America provides a winning combination that can't be beat.

It's the diversity

Economic diversity is widely recognized as an important factor for economic stability, and Manitoba's economy is recognized as one of the most diversified in Canada. Reports by Moody's Investors Services, Standard & Poor's, Dominion Bond Rating Service and CIBC all cite economic diversity as one of the province's major economic strengths. Over the past several years, Manitoba has either matched or outpaced the country in average economic growth.

It's all right here

Manitoba's ICT sector is comprised of hundreds of companies, from large multinationals to small and medium-sized businesses, and we're growing. In fact, revenues from Manitoba's software publishers, hosting, computer systems design and related services grew at 15 times the national average in 2003. Supported by an extensive network of educational facilities, R&D organizations as well as industry and professional associations, companies are able to thrive in an environment that fosters innovation, and positions them to compete, lead and win in a competitive global market.



Manitoba has the lowest published electricity rates in North America.

According to Higher Education Achievement – World Rank®, Canada boasts the world's best-educated workforce, outperforming the U.S. and Japan.





Second to none. Canada has the world's longest fibre-optic communications network and the world's fastest research and education network. Manitoba is recognized as one of the most wired provinces in the country.



Broadcast & Digital Media Manitoba's Got It



A global opportunity

With undisputed strengths in international broadcasting, film and digital effects/animation, Manitoba's broadcast and digital media companies are thriving — and growing. Whether it's the \$2.2 billion in yearly revenues from multi-national broadcast giant CanWest Global Communications, the category-breaking launch of the Aboriginal Peoples Television Network or the internationally-recognized digital effects of Frantic Films, these companies have carved out unique markets and are known around the world for their expertise.

In Manitoba, global expansion is easier on your bottom line — and you can have a life outside of work. You have the supports and structures that build world-class businesses, a vibrant arts culture to fuel the creative soul - with a cost-competitive and lifestyle edge that makes it even more worthwhile.

The support structure for media is strong in Manitoba. Post-secondary institutions offer advanced programs in communications and multi-media. Industry associations provide networks and support tailored to meet the specific needs of these growing industries. ICT and digital media business have access to a myriad of programs to assist in starting or expanding a business in Manitoba.



I COMPETE HERE

The cost of living is a huge benefit. We focus our competitive efforts on quality and innovation, but it's great to have lower overhead costs than all our major competitors in North America, Europe and Australia. We can keep prices very competitive and still maintain a margin."

Ken Zorniak

COO and VFX Producer Frantic Films



I CONNECT HERE

"We've grown into an international company knowing that Winnipeg is an ideal place to do business. It is central and we can get to anywhere quickly and easily. The business support environment is strong and it's possible to balance work with the rest of our family lives."

Leonard Asper

President and CEO CanWest Global Communications Corp.

The birthplace of giants. What do Canada's largest media company, the world's first and only aboriginal television network, and the surreal plastic prison of X-Men archenemy, Magneto, have in common? They were all made right here, in Manitoba.

It's here in Manitoba: CanWest Global Communications Corp. Aboriginal Peoples Television Network (APTN) Frantic Films

Digital Content Factory Ltd. Technologies for Learning Group (TLG)



World-class ingenuity. A Manitoba company produces the world's only intra-operative MRI that travels to multiple locations for point-of-use examinations.

Here in Manitoba: You'll save 13.1% in weekly wage costs over the Canadian average for ICT workers.





information, Manitoba's geomatics companies are making important contributions worldwide by enabling unprecedented support for decision making. We are helping to drive tremendous growth in what has become one of the ICT sector's fastest growing segments by managing important challenges in areas such as environmental protection, emergency response, disaster assistance, disease surveillance, land management, business location, public safety and others.

Manitoba companies like Linnet - The Land Systems Company, Atlis Geomatics, Datalink Mapping Technologies and CAD/CAM Solutions of Canada are leading providers of GIS (Geographic Information System) solutions for core sectors including agriculture production and marketing, natural resources management, transportation and energy. Manitoba has a particular

A wide range of services is available for photogrammetry, photo imaging and data creation, collection and storage.

The innovations of Manitoba companies combined with local and provincial government interest provide a focused support network ideal for geomatics businesses to grow and thrive. Post-secondary educational facilities provide a variety of advanced training programs to ensure a flow of highly qualified geomatics professionals to the province. As a first in Canada, the provincial government has also taken a leadership role nationally by providing free access to a variety of provincial geospatially enabled maps and data through a public website.

The outlook of this industry is excellent both globally and within Manitoba as the need for geomatics continues to grow.



I HIRE HERE

"The Manitoba workforce is very much geared for business. It's easy to find quality people and keep them. They have a healthy attitude and are focused on proving that things in Manitoba can be done world class. That enables us to provide the exceptional service, consistency and support, making it so much easier to build trusted partnerships with our clients."

Bruce Waschuk

CAD/CAM Solutions of Canada

It's here in Manitoba: Linnet – The Land Systems Company ATLIS Geomatics CAD/CAM Solutions of Canada Inc.

ESRI Canada Ltc. Map It Out Inc. Prairie Geomatics Ltd. DataLink Mapping Technologies Zone 14 GeoInfo Solutions

It pays to locate here. Gathering data in 121 cities around the world, KPMG found that Canada is the overall low cost leader for the world's 11 leading industrialized countries in 2004 and 9% below the U.S. average. Winnipeg, Manitoba ranks among the lowest of cities for the business costs associated with R&D, software and corporate services operations.

Software Products Manitoba's Got It

An innovative mentality

Manitoba's software cluster includes some of the most creative and innovative leaders in their fields, who quietly and consistently revolutionize their niche markets. This diverse group boasts many significant achievements. TelPay Inc., the Canadian pioneer and largest independent provider of e-payments, has a host of innovations, including being the first to offer Canadians the ability to pay their bills online. Winnipeg-based Emerging Information Systems Inc. (EISI), developed NaviPlan, an application that has risen to become the most widely used financial planning software in North America. Protegra, formally recognized as one of Canada's fastest growing companies, delivers enterprise software solutions to clients in Canada, the U.S., Europe and Japan.

Manitoba's strong research community is a driving force behind its software industry. More than twenty research institutions across the province provide an excellent foundation for technology transfer and the commercialization of new software solutions, particularly in biomedical, agricultural and telecommunications sectors.

Manitoba companies enjoy some of the best tax credits anywhere in the world for software R&D. Canada's federal tax support of R&D is recognized as one of the most generous and stable programs in the industrialized world.

Revenues from Manitoba's software publishers, data processing, hosting, computer systems design and related services grew at 15 times the national average in 2003.

High-level thinking doesn't cost much in Winnipeg, Manitoba. For software design, it is the most competitive of these major cities in relation to location-sensitive costs (wages, statutory plans and benefits).

KPMG, Competitive Alternatives Report 2004



One in a million. A Manitoba company brought the first 'bill payment by phone' experience to Canada, and now processes 14 million transactions valued at more than \$5 billion annually. It's here in Manitoba: EISI

Protegra Technology Group Lazer-fare Media Services TelPay Inc.

ProfitMaster Canada Inc.



It's under control. Inflation in Canada has averaged a modest 2.4 % over the past five years, producing low interest rates and one of the lowest cost-of-living indices in the developed world.

Here in Manitoba:

Your money goes further. After considering both Manitoba's R&D tax credit and the federal credit, the after-tax cost of one dollar of R&D expenditure in Manitoba for a non-manufacturing firm is between 41 cents and 46 cents.

I BENEFIT HERE

"Manitoba has everything you need to run a successful business in this industry. There are many advantages for us here, including overall cost, qualified and dedicated people and access to government programs to support our ongoing R&D."

Howard Loewen

President and Chief Technical Officer MicroPilot

I EXPORT HERE

"This has been an excellent location for our business. We have excellent transportation services for shipping product to our foreign customers. Being in the centre of North America with convenient access to truck, rail and air routes is significant for a company that uses both surface and air transport to get its products to market."

Neils Erik Hansen

President Vansco Electronics

A centre of activity

Canada is the top ranked location in the world in terms of overall business cost competitiveness in electronics assembly. Canada's electronics manufacturing services continue to reach new heights. Major strengths include: a highly-skilled labour force with a solid work ethic, plants roster which includes academic, military and private geared to high complexity product assembly, product innovation and central location. With tariff-free access to North America under NAFTA and some of the most generous R&D tax credits in the world, Manitoba offers an exceptional location, infrastructure and business climate for EMS start-ups to succeed. In Manitoba, the electronics and microelectronics segment of the industry represents an area with significant growth potential. The majority of Winnipeg's electronics companies are original equipment manufacturers and assemblers.

Many Manitoba electronics companies have become global players and are well known in their respective fields. As the manufacturer of the world's smallest miniature autopilot, Manitoba's Micropilot has a client research institutions worldwide. Flight International honoured their achievements in global aerospace by naming MicroPilot a finalist in the Avionics and Electronics category at the 2004 Annual Aerospace Awards. Winnipeg based Vansco Electronics, which specializes in the design of custom electronic, electro-mechanical and electro-hydraulic products, has also emerged as a global player, with annual sales of over \$100 million.

Dreams take flight. A Manitoba company developed the world's smallest functional autopilot weighing just 28 grams, with capabilities that include GPS navigation, turn coordination and autonomous operation from launch to recovery.

It's here in Manitoba: Vansco Electronics LP MicroPilot Solectron Corporation – Systems Solutions Group

Amphenol Technical Products International RTDS Technologies Inc. IDERS Incorporated

Manitoba supports it



Red River College Campus, Winnipeg, Manitoba

Education

Manitoba's excellent education system ensures the continued availability of a quality pool of human resources with skills that meet the demands of a knowledge-based economy. A number of educational facilities provide programs to support the ICT sector, including the University of Manitoba, the University of Winnipeg, the University of Brandon, Red River College, Assiniboine College, South Winnipeg Technical Centre, the University College of the North and numerous private vocational facilities. Each year nearly 70,000 students are enrolled in post-secondary programs.

Canada's R&D tax treatment includes immediate full write-offs for all expenditures in R&D capital equipment and appreciable tax credits.



Manitoba's ICT sector is well served by a strong R&D base that includes a number of key organizations and assets:

- TRLabs the largest not-for-profit ICT research and development lab in Canada
- University of Manitoba including U of M Bioinformatics, U of M Scanning Probe Microscopy and Nanofabrication Lab, the Internet Innovation Centre and the many research labs affiliated with U of M's medical campus
- Canadian Advanced Networks for the Advancement of Research in Industry and Education (CANARIE) — facilitates the widespread adoption of faster, more efficient networks and the enabling of the next generation of advanced products, applications and services to run them
- Ca*Net/MRNet the world's first national optical Internet research and education network
- The NRC Institute for Biodiagnostics' Biomedical Informatics Group — developing state-of-the art methods for managing complex biomedical data
- Virtual Reality Centre providing industry, academia and government with easy access to the most advanced visualization tools
- SmartPark a world class research and technology park at the University of Manitoba's Fort Garry Campus





Nano-Systems Fabrication Lab, University of Manitoba, Winnipeg, Manitoba

Support Programs

ICT companies enjoy support through a myriad of programs and services to assist start-ups or expansions in Manitoba.

- R&D Support
- Feasibility Study/Business Plan Assistance
- Incubation Services
- Technology Transfer and Commercialization Assistance
- Export/Trade Assistance

Venture Capital

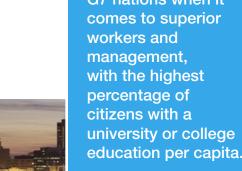
Growing and sustaining an ICT business requires access to capital investment at different stages of the company's life cycle. Manitoba has multiple sources of capital to support your venture, from angel investment to labour-sponsored capital funds.

Supportive Government and Associations

It is a priority of the municipal, provincial and federal governments to enable growth in the ICT sector through innovative programs, tax credits and a cooperative, coordinated approach. Numerous associations work to promote ICT industry and professional development in Manitoba, including the Information Communication and Technology Association of Manitoba (ICTAM), the Canadian Information Processing Society Winnipeg Chapter (CIPS), the Manitoba Interactive Digital Media Association (MIDMA) and Smart Partners of Manitoba, among others.

Canada leads the G7 nations when it comes to superior workers and management, with the highest percentage of citizens with a university or college







Manitoba. It's the place to: locate expand research partner invest

Photography courtesy of:

COVER

grajewski.fotograph.inc Ken Miner Photography Vansco Electronics LP IMRIS Virtual Reality Centre Manitoba Telecom Services Inc.

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Executive shots courtesy of:

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CanWest Global Communications Corp.
Momentum Healthware
IMRIS
CAD/CAM Solutions of Canada
MicroPilot
Vansco Electronics LP

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