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ANNUAL Innovation Guide

INNOVATION RESOURCES FOR COMPANIES AND ORGANIZATIONS

Brought to you by



Research Infosource Inc.

Opening Doors to Research, Innovation and Commercialization



Ron Freedman
CEO
Research Infosource Inc.

Research Infosource welcomes you to its inaugural issue of *Canada's Innovation Leaders: Annual Innovation Guide*. If you are a business owner or manager the Annual Innovation Guide should be of particular interest to you. Our mission is to showcase for a business and non-government audience, some of the many sources of support for research, innovation and commercialization that reside in our leading public sector institutions – government departments and agencies, colleges, universities, hospitals, business

incubators and accelerators, research centres and networks, municipal economic development offices – the list goes on.

What these diverse organizations have in common is a desire to work with companies, entrepreneurs, and non-governmental organizations like yours to help accelerate the pace of research, innovation, commercialization, marketing and sales for products or services.

Every year Canadian taxpayers fund billions of dollars of activity in public sector research and commercialization organizations. The *Annual Innovation Guide* is designed to help business owners and managers harness that wealth of activity to their own benefit. We know that with the plethora of public sector support programs it can be daunting for business owners and managers to navigate the many sources of help. That's why one of your first ports of call should be to the Concierge Service that is offered by the National Research

Council's Industrial Research and Assistance Program (IRAP). Concierge is a free service designed to help you find the right sources of support for your organization no matter where in Canada you reside.

Toronto's Ryerson University is one of Canada's fast-growing research universities. Ryerson offers partner companies and organizations assistance in talent, sourcing funding opportunities, research, commercialization and internationalization. In the words of Dr. Wendy Cukier, Vice President, Research and Innovation "Our research trajectory has been amazing, in part because we combine research excellence with relevance. Because of Ryerson's polytechnic roots, many of our faculty have worked outside of the university and see real win-win scenarios in working with partners to address real world needs. We are committed to excellence in research but also to promoting innovation to drive economic and social

development. While our strength in science and engineering and in developing new technologies is well known, our researchers in social sciences, humanities and design are also critical to driving innovation in new products and services as well as organizational and systems change."

Or, take the Ontario Centres of Excellence. OCE co-invests with companies and organizations like yours to commercialize innovation originating in the province's publicly funded colleges, universities and research hospitals. It also supports and invests in early-stage projects, where the probability of commercial success and potential total return on innovation are substantial.

Eastern Canada businesses, especially, will be interested in the research, entrepreneurship and innovation services offered by Collège communautaire du Nouveau-Brunswick (CCNB). Over the past decade, CCNB has stepped up its efforts to

support and promote innovation and technology integration initiatives in the Atlantic provinces' industrial and manufacturing sectors.

At the University of Guelph, the Catalyst Centre provides a single-window approach to technology transfer and industrial liaison, while the Centre for Business and Social Entrepreneurship (CBaSE) connects young leaders with opportunities for growth via courses, start-up incubation and experiential learning opportunities.

George Brown College is another of Canada's leading research colleges. GBC has the industry connections and the expertise to accelerate your company or organization's research and commercialization and to link with future employees.

Companies in Southwestern Ontario can look to Lambton College for support. Lambton Applied Research & Innovation works with its partners to develop a tailored working model ranging from direct research contracts to collaborative projects supported by public funding.

If your company or organization is active in wireless technology, Wavefront, Canada's Centre of Excellence for Wireless Commercialization and Research, is keen to

Continued on Page 5

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WAVEFRONT—CANADA'S CENTRE OF EXCELLENCE FOR WIRELESS COMMERCIALIZATION AND RESEARCH (CECR)

Accelerating Wireless Innovation for the Benefit of Canadians

Wavefront is Canada's Centre of Excellence for Wireless Commercialization and Research (CECR), accelerating the growth and success of wireless companies by connecting them with critical resources, partners and opportunities, to drive economic and social benefits for Canada.

Generating ROI and Building the National Economy

During the first four years of its CECR, Wavefront:

- Generated almost \$37 million in GDP
- Achieved almost five-fold economic return on every dollar of public funding invested (measured in terms of GDP)
- Contributed to the creation of 574 cumulative new jobs across Canada


WavefrontAC.com

[WavefrontAC](https://twitter.com/WavefrontAC)

linkedin.com/company/wavefront

Advisory Services

Looking to grow or expand your technology-oriented business? These groups have the technical and business know-how to assist you.

INNOVATION SUPPORT DIRECTORY			ADVISORY SERVICES	
Organization	Program	Geographic Reach	Contact	Description
Collège communautaire du Nouveau-Brunswick (CCNB) 	Entrepreneurship & Innovation - Research & Industrial Services	Eastern Canada	Sylvain Poirier 506-547-2572 sylvain.poirier@ccnb.ca ccnb.ca/entrepreneurship-et-innovation/research-and-industrial-services.aspx	Advisory services offered in 1) agro-forestry, agro-innovation, precision agriculture, soil and water conservation; 2) bio-fuels, bio-products and scale-up of processes based on microbial fermentation, enzymatic hydrolysis, bio-separation, chemical process technologies; and 3) development of mechanical processes, prototyping and concept validation, technological integration and development of assembly processes, by metallurgy/welding technologies expert team.
Wavefront 	Canada's Centre of Excellence for Wireless Commercialization and Research	Canada	Karen Mitchell 778-331-7500 marketing@wavefrontac.com www.wavefrontac.com  @wavefrontAC	Wavefront is Canada's Centre of Excellence for Wireless Commercialization and Research, accelerating the growth and success of wireless companies by connecting them with critical resources, partners and opportunities, to drive economic and social benefits for Canada. We provide Accelerator and Mentorship Programs, Advisory Services, Training, Technical Services, Market Linkages, and Funding.



The Honourable Ed Holder
Minister of State
(Science and Technology)

Updated Science Strategy Expands Harper Government's Focus on Innovation

New federal research priorities include Advanced Manufacturing

essential to strengthening our position as an international science, technology and innovation leader.

In fact, Canada leads the G-7 in terms of R&D investments at universities, colleges and research institutes. Evidence of these investments can be witnessed across the country: The University of Victoria boasts the world's most powerful microscope. The Perimeter Institute is widely seen as the world's foremost centre for theoretical physics, an anchor institution for Waterloo's growing "Quantum Valley." Université Laval's arctic research programs are benefitting Canada's northern communities. And ground-breaking chemistry research by Dalhousie's Axel Becke, the most recent Gerhard Herzberg prize winner, is among the most cited in the world. We excel internationally in genomics, aerospace, clean energy, cybersecurity – the list goes on.

However, Canada must continue to leverage its competitive strengths and expand its strong entrepreneurial spirit into a broader

business innovation culture. The updated strategy, *Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation 2014* provides a vision and a roadmap toward addressing persistent challenges in business innovation, while sustaining our strength in discovery and developing, attracting and retaining the most talented researchers in the world.

It sets out how we will harness the power of Canadian ingenuity, discovery, and invention to create jobs, increase prosperity and improve our quality of life.

It reaffirms and builds on two existing pillars from the first strategy, namely "people" and "knowledge," and it enhances and broadens the scope of the third pillar to include "innovation."

By focusing on people, we will strengthen the skills and capacity that keep Canada at the forefront of research and innovation. We continue to invest in knowledge – in the form of research and infrastructure – as we strengthen support for excellence across the spectrum

of discovery-driven and applied research activities, and we will make Canada a world leader in targeted research areas to create long-term economic advantages.

The third pillar will foster innovation, building greater partnerships among businesses and the research community to help Canadian companies compete and win in the global marketplace.

We are also expanding the scope of our targeted research priorities.

In addition to the environment, natural resources and energy, health and life sciences, and information and communications technologies, we have added agriculture and advanced manufacturing as priority areas. To the casual observer, advanced manufacturing might appear to be an odd choice- however, the 1.7 million Canadians employed by manufacturing support the development of new materials, processes, and high-value products, essential to countless scientific disciplines and industries ranging from pharmaceuticals to telecommunications.

Economic Action Plan 2014 significantly supported the objectives of the new strategy with the announcement of the Canada First Research Excellence Fund. The Excellence Fund is a legacy investment of \$1.5 billion over ten years to drive Canadian university and college research from world-class to world-leading, creating long-term economic benefits for Canada.

The Excellence Fund has been designed to offer institutions maximum flexibility in making strategic research investments in the pursuit of global excellence, including through greater Canadian and international collaborations across multiple disciplines and with or without industrial partners.

Powered by investments like the Excellence Fund and guided by Canada's updated strategy, our government will continue to strengthen Canada's leadership position in science and business innovation while creating jobs, prosperity and an improved quality of life for Canadians.

In an increasingly competitive and ever-changing world, our government knows that science policy needs to be both flexible and forward-looking.

Our original Science and Technology Strategy, released in 2007, helped guide the government through significant investments across the board. Even during the global economic recession, Prime Minister Stephen Harper's commitment to funding Canadian science did not waver.

In all, since 2006 we have provided more than \$11 billion in new resources for basic and applied research, talent development, research infrastructure, and innovative activities in the private sector. Our government's record support is

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Government
of Canada

Gouvernement
du Canada

Canada

Incubators, Accelerators & Research Parks

Whether you are looking to nurture a great idea, grow a start-up company or relocate an established enterprise, these organizations can help put you on the road to success.

INNOVATION SUPPORT DIRECTORY			INCUBATORS, ACCELERATORS & RESEARCH PARKS	
Organization	Program	Geographic Reach	Contact	Description
The Centre for Business and Social Entrepreneurship 	The Hub Incubator	Ontario	Ahren Brunow 519-824-4120 ext 56675 abrunow@uoguelph.ca uoguelph.ca/cbase/thehub  @cbase_uog	The Hub is available to University of Guelph students and alumni working on innovative projects. Eligible teams must have at least one co-founder who is a current University of Guelph student or alumnus between the ages of 18 to 29. The Hub supports businesses in the beverage and food, life sciences, agriculture or social enterprise sectors.
City of Port Alberni 	Industrial Design & Manufacturing Centre	Canada	Pat Deakin 250-720-2527 patrick_deakin@portalberni.ca www.portalberni.ca  @CPAecdev	Access to hundreds of qualified trades personnel. Assistance with industrial solutions. Manufacturing sites. Access to capital.
Collège communautaire du Nouveau-Brunswick (CCNB) 	Biorefinery Technology Scale-Up Centre (BTSC) / Centre précommercial de technologies en bioprocédés (CPTB)	Eastern Canada	Josée Landry 506-475-2424 josee.landry@ccnb.ca ccnb.ca/entrepreneurship-et-innovation/research-and-industrial-services.aspx	Technical incubation capacity that provides opportunities for researchers as well as start-ups and well established companies in the biotechnology sector to test their products or processes at near-production scale thus validating their technologies before undertaking commercial production or negotiating the value of their technology with a licensee.
Innovation Park at Queen's University 	Canada Accelerator and Incubator Program (CAIP) – Incubation and Acceleration at Innovation Park	Eastern Ontario	Janice Mady 613-533-3376 janice.mady@queensu.ca www.innovationpark.ca  @InnovationCan	For Eligible Entrepreneurs, Startups and SMEs: <ul style="list-style-type: none"> • Provision of Co-location, Incubation, Collaboration and Program Space at Innovation Park in Kingston, including Provision of Facilities Services • Provision of Mentorship and Embedded Management Services in Eastern Ontario • Delivery of Acceleration Programs in Kingston • Match-Making to Enable Access to Resources in Kingston and Region
Ontario Centres of Excellence 	Campus Linked Accelerator Program	Ontario	Binny Arora 416-861-1092 ext 1037 binny.arora@oce-ontario.org www.oce-ontario.org/programs/entrepreneurship-programs/CLAs  @OCEInnovation	Campus Linked Accelerators fund post-secondary institutions to promote a culture of entrepreneurship among students and youth and integrate entrepreneurial activities with investors, industry, and other stakeholders. The program aims to help Ontario accelerate commercialization of ideas from its world-class institutions, develop business leaders and build competitive regional innovation ecosystems.
Prince Edward Island BioAlliance 	Emergence BioIncubator	International	Daniela Fischer Russell 902-367-4400 daniela@peibioalliance.com www.emergencebioincubator.com  @BioSciencePEI	Emergence is a national virtual business incubator dedicated to assisting start-ups and growth stage companies in the bioscience and food sectors. The Emergence program provides companies at all stages of Development with the long-term support and guidance they require to efficiently bring their products and services to market.
Ryerson University Digital Media Zone 	Digital Media Zone (DMZ)	International	Abdullah Snobar 416-979-5000 ext 2857 dmz@ryerson.ca digitalmediazone.ryerson.ca  @ryersondmz	The Digital Media Zone (DMZ) at Ryerson University is one of Canada's largest business incubators and co-working spaces for entrepreneurs. The top-ranked university incubator in Canada and fifth in the world helps startups succeed by connecting them with customers, advisors, influencers and other entrepreneurs.
Wavefront 	Canada's Centre of Excellence for Wireless Commercialization and Research	Canada	Karen Mitchell 778-331-7500 marketing@wavefrontac.com www.wavefrontac.com  @wavefrontAC	Wavefront is Canada's Centre of Excellence for Wireless Commercialization and Research, accelerating the growth and success of wireless companies by connecting them with critical resources, partners and opportunities, to drive economic and social benefits for Canada. We provide Accelerator and Mentorship Programs, Advisory Services, Training, Technical Services, Market Linkages, and Funding.



THE CITY OF Port Alberni

Port Alberni is well known for its forest industry, fishing, summer heat, and sports tournaments. What is truly remarkable but overlooked is the range of innovations in a community of 25,000 people. They are a testimony to hundreds of skilled trades' people living here and include:

- a sand filter for Sikorsky helicopters working in desert situations; ice-blast machines for removing paint, grease, and mud in commercial and industrial settings; engineered Western Red Cedar siding & panels; conversions of military C-130 Hercules aircraft for firefighting purposes

- industrial exhaust & air intake systems for the world's largest mining, marine & logging machines

- a leading edge air distribution system now being sold for buildings across North America

- the shore station for Ocean Networks Canada's 812 kilometre loop of fibre optic cable is based here transmitting real time data from the system's 130 instruments aboard five installations on the ocean floor.

Port Alberni has a deep sea port, a regional airport and is Vancouver Island's Most Affordable Community.

Text or call Pat Deakin 250.720.9117

Emergence

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emergence@pebioalliance.com
www.emergencebioincubator.com
 Call (902) 367-4400

PRINCE EDWARD ISLAND
BioAlliance



Opening Doors to Research, Innovation and Commercialization

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help you accelerate your growth and success via access to its research, talent and infrastructure. Wavefront is one of 49 federally-funded Centres of Excellence with a mission to reach out to the business community.

Based in Charlottetown, PEI BioAlliance is the focal point for PEI's bioscience cluster. The BioAlliance has just launched Emergence, a not-for-profit virtual business incubator that assists start-ups and growth stage companies in the bioscience and food sectors. Their objective is to make Prince Edward Island the location of choice for companies engaged in the research, development, and commercialization of bioactive-based human and animal health and nutrition products.

The City of Port Alberni is rapidly transitioning from a resource economy to one focussed on tourism, post-secondary education, the arts, agriculture, and high tech industries. Businesses looking to locate

or expand there will find a warm welcome from the city's economic development office.

Fanshawe College's Centre for Research and Innovation (CRI) serves as the central liaison for industry, business, and community groups wishing to connect with Fanshawe researchers to develop new and innovative research projects or programs. CRI works with partners in a variety of ways: curriculum integrated projects, capstone collaborations, externally-funded collaborations, and fee for service.

And, if your organization is looking for a community where innovators can work with academia, industry, government and not-for-profits to cultivate ideas, identify and transform important technological discoveries, and propel innovations into the marketplace, then look no further than Innovation Park at Queen's University.

Finally, we thank the federal and provincial ministers responsible for science, research and advanced education for contributing to *Canada's Innovation Leaders: Annual Innovation Guide*.

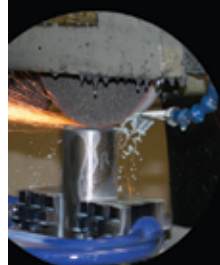
CCNB INNOV



**Biorefinery Technology Scale-Up Centre /
Centre précommercial de technologies
en bioprocédés**



**Eastern Canada Soil and Water
Conservation Centre /
Centre de conservation des sols
et de l'eau de l'Est du Canada**



**Metal Innovation and Technology
Transfer Centre /
Centre d'innovation et de transfert
technologique des métaux**













**Atlantic Canada Welding
Technology Centre /
Centre de technologie en soudage
du Canada Atlantique**

Bilingual services / Services bilingues
 Tel : 506-547-2613
 Email/courriel : recherche.ccnb@ccnb.ca
www.ccnb.ca/innov














Research Services

Need research support to develop your next product or service or troubleshoot an existing one? These organizations offer collaborative or contract research services that can help you get to market.

INNOVATION SUPPORT DIRECTORY			RESEARCH SERVICES	
Organization	Program	Geographic Reach	Contact	Description
The Centre for Business and Social Entrepreneurship 	Business Consulting	Canada	Ahren Brunow 519-824-4120 ext 56675 abrunow@uoguelph.ca www.uoguelph.ca/cbase/community-partners  @cbase_uog	Grow your business with senior student consultants from the University of Guelph. We work with you to develop a project plan. Then, you are matched with a student team who deliver a comprehensive report detailing the project's objectives, findings, and suggested courses of action.
Collège communautaire du Nouveau-Brunswick (CCNB) 	Entrepreneurship & Innovation - Research & Industrial Services	Eastern Canada	Sylvain Poirier 506-547-2572 sylvain.poirier@ccnb.ca ccnb.ca/entrepreneurship-et-innovation/research-and-industrial-services.aspx	Contract & collaborative research services offered in 1) agro-forestry, agro-innovation, precision agriculture, soil and water conservation; 2) bio-fuels, bio-products and scale-up of processes based on microbial fermentation, enzymatic hydrolysis, bio-separation, chemical process technologies; 3) experimental aquaculture; 4) development of mechanical processes, prototyping and concept validation, technological integration, development of assembly processes.
Fanshawe College Centre for Research and Innovation 		International	Dan Douglas 519-452-4430 ext 4292 ddouglas@fanshawec.ca www.fanshawec.ca/research  @RFanshawe	The Centre for Research and Innovation (CRI) is Fanshawe College's Research Office and Industry Innovation Centre (IIC). CRI links industry, business and community partners with Fanshawe researchers, to develop innovative research projects and programs, and serves as the College's liaison to external funders. In short, we're the first point of contact for research and innovation services at Fanshawe College.
George Brown College 	Research & Innovation	Southern Ontario/Greater Toronto Area	416-415-5000 ext 6082 research@georgebrown.ca www.georgebrown.ca/research  @GBCResearch	The Office of Research and Innovation (ORI) at George Brown College promotes Canadian innovation through industry-driven applied research projects. We match industry connections with faculty and student expertise, operating as a single hub of access to highly qualified and skilled personnel, funding and state-of-the-art facilities. These facilities include research labs available for work on new product testing and technology validation, spanning the fields of healthcare, green building, design and culinary arts.
Innovation Atlas of Canada 		Canada	Ron Freedman 647-345-3434 ext 22 ron@researchinfosource.com innovationatlas.com	The Atlas provides critical information about Who is doing What , Where in research and innovation in Canada: Identify thousands of experts in any field of research; Create an expertise database for your own organization; Track research funding and infrastructure investments; Find high tech and R&D companies; Identify over 1,300 university, hospital research centres; and more!
Lambton College Applied Research & Innovation 	Applied Research & Innovation	Southwestern Ontario	519-542-7751 ext 3523 research@lambtoncollege.ca www.lambtoncollege.ca/research  @LCappresearch	Lambton College Applied Research & Innovation works with its partners to develop a suitable working model ranging from direct research contracts to collaborative projects supported by public funding. By working with industry partners, faculty and students, we ensure that we keep pace with industry developments within our community and across the globe.

INNOVATION SUPPORT DIRECTORY**RESEARCH SERVICES (CONTINUED)**

Organization	Program	Geographic Reach	Contact	Description
Ontario Centres of Excellence 	Industry-Academic Collaboration Voucher Program	Ontario	Bettina Klenkler 416-861-1092 ext 3228 bettina.klenkler@oce-ontario.org www.oce-ontario.org/programs/industry-academic-collaboration/collaboration-voucher-program  @OCEInnovation	Gives companies quick and easy access to the expertise and knowledge at Ontario's universities, colleges and research hospitals to address industry challenges and improve productivity, performance and competitiveness. Eligible Ontario companies receive a voucher, which is a credit, that they can redeem from research institutes. Three types of vouchers are available.
Ryerson University 	Office of the Vice President, Research and Innovation	International	Jennifer MacInnis 416-979-5042 ext 4602 jmacinnis@ryerson.ca www.ryerson.ca/research  @ryersonresearch	Ryerson's research office serves as a hub for private and public sector collaboration, supporting innovative research applications with social and economic impact. Our partners can access a variety of funding programs, specialized research facilities, new technologies, and highly skilled professionals. Partner with us to solve real-world problems.
Ryerson University 	Centre for Urban Energy (CUE)	International	Matthew Kerry 416-979-5000 ext 2988 cueinfo@ryerson.ca www.ryerson.ca/cue  @ryersoncue	The Ryerson Centre for Urban Energy works with industry to commercialize innovative solutions to urban energy challenges. Partner with us to connect with leading researchers, highly qualified personnel, and international collaborators in areas such as smart grid technologies, energy policy, electric vehicles, and net-zero homes.
Ryerson University 	Ted Rogers School of Management's Diversity Institute at Ryerson University	International	416-979-5000 ext 7268 diversityinstitute@ryerson.ca www.ryerson.ca/diversity  @ryersonDI	The Diversity Institute undertakes research on diversity in the workplace to improve practices in organizations. We collaborate with partners to evaluate programs, explore barriers to participation, develop policies, and provide customized training. Our action-oriented, evidence-based approach advances knowledge of barriers faced by underrepresented groups as well as leading practices.
Ryerson University 	Social Innovation at Ryerson	International	Amanda Gaspard 416-979-5000 ext 2795 changemakers@ryerson.ca www.ryerson.ca/socialinnovation  @innovate_RU	Ryerson University is Canada's only Ashoka Changemaker campus. It offers the country's largest entrepreneurship program, and over 300 courses with innovation and entrepreneurship components. The new Social Ventures Zone supports enterprises with a positive social impact. The University is also home to 15 research centres focused on social innovation.
Ryerson University 	Institute for Biomedical Engineering, Science and Technology (iBEST)	International	Jennifer MacInnis 416-979-5042 ext 4602 jmacinnis@ryerson.ca www.ryerson.ca/ibest	iBEST is a partnership between St. Michael's Hospital and Ryerson University, merging strengths in biomedical research and education. iBEST scientists, engineers, clinicians, students, and trainees develop innovative solutions that profoundly advance patient care. Collaborations encompass big data, imaging, microfluidics, nanoparticles, regenerative medicine, biomaterials, and more.

Attention Research Organizations

Missed the print issue of Canada's Innovation Leaders: Annual Innovation Guide? *It's not too late to be in our online version!*

Gain visibility with our **70,000+** unique visitors each year. For further information contact: Arlene Dwyer 647-345-3434 ext 23; arlene@researchinfosource.com



The Honourable Reza Moridi
Minister of Research and Innovation
Minister of Training, Colleges and Universities

It's no secret – Ontario strives to be the top global jurisdiction for research excellence. Attracting, retaining and growing research talent helps support economically important sectors and leads to discoveries that bring tangible benefits to Ontarians.

Ontario's Aggressive Innovation Agenda

Our province already generates nearly 50% of Canada's research output, has the fastest growing clean tech sector in Canada, and ranks second in North America, after California, for the number of ICT establishments¹. But global competition is fierce.

That's why Ontario is intensifying efforts to strengthen high-growth sectors, including ICT, advanced manufacturing and life sciences. We're doing this by working with our partners through the entire innovation continuum – from research to commercialization and beyond.

This begins with ensuring we have a workforce with the right skills and knowledge. Ontario is continuing to boost its innovation and research

capacity, and more than 38,000 science, technology, engineering and mathematics students now graduate each year from our world-class universities and colleges.²

Through Ontario's Youth Jobs Strategy, virtually every campus now has programming available for the next generation of entrepreneurs, including mentorship and resources to start their own businesses. The province also created the Ontario Network of Entrepreneurs (ONE) to help people turn ideas and discoveries into marketable products and services. Last year alone, it helped launch more than 900 tech-based firms³.

Building an exceptional foundation of talent has allowed us to make strategic

investments in research – over one billion dollars since 2003 – which have leveraged an additional \$2.8 billion in funding. The province is developing and attracting researchers to lead globally-recognized organizations such as the Perimeter Institute, the Ontario Brain Institute and the Ontario Institute for Cancer Research. International companies, like OpenText and Cisco, are also continuing to choose Ontario to expand operations and create jobs – a strong endorsement of our depth of talent.

The final part of Ontario's innovation continuum includes building a strong risk capital ecosystem through programs like the Ontario Venture Capital Fund and the Northleaf Venture Catalyst Fund. At least 18 new seed and venture capital

funds have been established in Ontario since 2011⁴. Start-ups here are attracting the interest of leading global investors, including Ottawa-based Shopify, which has reached a market valuation of more than one billion dollars.

We have a lot to be proud of in Ontario, and with a clear plan centered around investing in talent, research and collaboration, I know Ontario will continue to build on our innovation agenda.

¹ Statistics Canada, US Bureau of Labour Statistics, ICT/Life Sciences unit analysis.


² Statistics Canada, Ministry of Training, Colleges and Universities.

³ RCE Deck: Ontario's Innovation and Entrepreneurial Ecosystem, January 2015.

⁴ Provided by RCE Division.

Facilities & Equipment

Do you require access to unique facilities and equipment for testing or development, and the expertise that goes along with them? Organizations can provide you with access to state-of-the-art resources.

INNOVATION SUPPORT DIRECTORY			FACILITIES & EQUIPMENT	
Organization	Program	Geographic Reach	Contact	Description
Collège communautaire du Nouveau-Brunswick (CCNB) 	Biorefinery Technology Scale-Up Centre (BTSC) / Centre précommercial de technologies en bioprocédés (CPTB)	Eastern Canada	Josée Landry 506-475-2424 josee.landry@ccnb.ca ccnb.ca/entrepreneurship-et-innovation/research-and-industrial-services.aspx	Mobile pre-production scale equipment (fermentation and distillation system; biodiesel production system; biogas production system) unique in Atlantic Canada and a well equipped analytical laboratory (HPLC-DAD, GC-FID-MS, spectrophotometers, steam fractionation system; Ankom system; bioreactors/fermenters; reverse osmosis system; GEA filtration systems; micromalter; microbrewery), staffed by an industrial services oriented research team.



WHERE INGENUITY MEETS OPPORTUNITY

Applied Research & Innovation
Lambton College

Applied Research & Innovation
Suncor Sustainability Centre
519-542-7751 Ext. 3523
1489 London Road
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Talent

Skilled workers are key to the success of any technology-oriented business today. Are you looking for expertise to help research or commercialize your next product or service? Are you looking for future star employees? Look no further.

INNOVATION SUPPORT DIRECTORY

TALENT

Organization	Program	Geographic Reach	Contact	Description
Ontario Centres of Excellence  <small>Ontario Centres of Excellence Centres d'excellence de l'Ontario Where Next Happens Ou l'avenir se réalise</small>	TalentEdge Internship and Fellowship Program	Ontario	Binny Arora 416-861-1092 ext 1037 binny.arora@oce-ontario.org www.oce-ontario.org/programs/industry-academic-collaboration/talentedge  @OCEInnovation	Provides Ontario students and recent graduates with real-world industry experience. Interns and postdoctoral fellows can apply leading-edge knowledge to solving industry problems. Open to university and college students, specifically graduate students, final-year undergraduates, and recent graduates. Placements are project-based with an R&D component and program is open to all disciplines.



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ONTARIO CENTRES OF EXCELLENCE

Industry's gateway to Ontario's innovation ecosystem

- Helping companies tap into top research at universities, colleges and research hospitals
- Facilitating and supporting collaborative industry-academic R&D
- Accelerating commercialization of innovative new technologies
- Strengthening capacity to develop innovative new products, services, and processes
- Equipping Ontario students and recent grads with real world skills through exposure to industry challenges
- Helping develop and retain top talent in Ontario

For more information visit oce-ontario.org











Ontario Centres of Excellence
Where Next Happens



Aerospace • Mining • Energy & Environment • Agri-food • Digital • Financial Services
Advanced Health • Advanced Manufacturing • High Performance Computing

Tech Transfer & Commercialization

Canada's universities, government labs, colleges and hospitals are home to world-beating technologies ready for you to take the next step towards commercialization. Contact them for details on accessing their technology and intellectual property.

INNOVATION SUPPORT DIRECTORY		TECH TRANSFER & COMMERCIALIZATION		
Organization	Program	Geographic Reach	Contact	Description
Ontario Centres of Excellence  Ontario Centres of Excellence Centres d'excellence de l'Ontario <small>Where Next Happens OÙ l'avenir se réalise</small>	Market Readiness Program	Ontario	Jennifer Moles 416-861-1092 ext 1023 jennifer.moles@oce-ontario.org www.oce-ontario.org/programs/commercialization-programs/market-readiness  @OCEInnovation	Directly funds early-stage commercialization by start-up companies to support growth into scalable businesses. Supports both Customer Creation and Company Building stages of Customer Development Model, as defined by Lean Start-up principles. Applying its de-risking expertise, OCE helps early-stage companies attract the private investors and other funders they need to grow.
Ryerson University  RC4 <small>RYERSON CENTRE FOR CLOUD & CONTEXT-AWARE COMPUTING</small>	Ryerson Centre for Cloud and Context-Aware Computing (RC4)	International	John MacRitchie 416-979-5000 ext 3290 rc4@ryerson.ca rc4.ryerson.ca  @ryersonrc4	RC4 brings together industry, researchers and start-ups to develop and apply cloud and context-aware technologies to commercialize research, improve business processes and create new products and services. RC4 also includes the Ryerson Transmedia Centre; the Advanced Manufacturing, Design and 3D Printing Lab; and the Ryerson Ubiquitous and Pervasive Computing Lab.
University of Guelph  CATALYST CENTRE	Catalyst Centre	Ontario	Melissa Williams 519-824-4120 ext 58878 catalystcentre@uoguelph.ca www.uoguelph.ca/catalystcentre  @catalystcentre	The Catalyst Centre (CC) is University of Guelph's technology transfer and industrial liaison office, overseeing all aspects of the University's intellectual property (IP) management and technology commercialization activities. The Industry Liaison Program helps form valuable applied research partnerships by connecting industry's R&D needs with U of G expertise and resources.
Wavefront  wavefront™ <small>accelerating wireless innovation</small>	Canada's Centre of Excellence for Wireless Commercialization and Research	Canada	Karen Mitchell 778-331-7500 marketing@wavefrontac.com www.wavefrontac.com  @wavefrontAC	Wavefront is Canada's Centre of Excellence for Wireless Commercialization and Research, accelerating the growth and success of wireless companies by connecting them with critical resources, partners and opportunities, to drive economic and social benefits for Canada. We provide Accelerator and Mentorship Programs, Advisory Services, Training, Technical Services, Market Linkages, and Funding.




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The Honourable Donald Scott
Minister of Innovation and
Advanced Education

Innovation and Entrepreneurship Go Together in Alberta

Albertans have always been innovators and are known across the country for our entrepreneurial and innovative spirit. So perhaps it's no surprise that our innovative spirit led to the Alberta Research Council, founded in 1921, as Canada's first and largest provincial research council. Much of the early research focused on agriculture, helping to build the backbone of the Alberta economy. Another field of research saw Dr. Karl Clark develop a method for extracting oil from oil sands in 1929, which would impact not only Alberta but all of Canada in profound ways.

Being innovative goes hand-in-hand with Albertans' entrepreneurial spirit. Simply put, we believe in the power of ideas. This is reiterated in the strategic importance of innovation recognized by Premier Jim Prentice, in his mandates to government ministries, including Alberta Innovation and Advanced Education, for a more innovative Alberta.

To gain the most benefit from innovation, it makes sense to focus government's investments in world-class research talent and infrastructure on priority areas where we have established leadership and strong industries. In Alberta, our rich natural environment offers tremendous opportunities in the key areas of energy, environment, fibre and food. Health innovation is also a priority, building on our successes in life-saving medical devices, diabetes, and multiple sclerosis.

Albertans expect their government to get the best value from our investments in research and innovation. We've found that being collaborative and supporting an innovation system, which we call Alberta Innovates, is paying off. In 2010, we took 10 research and innovation organizations and created the four Alberta Innovates corporations for health, energy and environment, commercialization, and biotechnology.

Alberta is open to new areas of innovation and is now on the leading edge of disciplines like nanotechnology, metabolomics, virology, robotics and sustainable resource development.

Alberta is a province that relies on trading relationships throughout the world and we compete in the Global economy. We are not just competing in commodity markets; we are competing for research and innovation talent, the attraction of capital, and in building a vibrant environment where researchers and entrepreneurs can thrive.

We know we must offer a compelling case to encourage innovators to stake their claim in the marketplace from here in Alberta. That's where our collaborative and entrepreneurial approach helps build a fertile innovation environment. For example, our Research Capacity Program puts world-class research tools in the labs of our post-secondary institutions, and our Regional Innovation Networks provide business and technical services in every corner of Alberta. Any Albertan with a new product idea can call and speak to a team of professionals for advice and access to experienced innovators, who are just as excited as they are about game-changing ideas.

Our commitment to innovation has led global technology giants like Siemens and GE, and other jurisdictions including China, Germany, Finland and Mexico to sign formal agreements with Alberta. These include memoranda-of-

understanding, product and technology development programs, twinning agreements, exchange programs and more. Together, we're creating greater pathways to commercialization opportunities and access to global markets.

These programs, our system-approach and our

direct investments in public research and innovation organizations, make Alberta an attractive partner and launching-pad for innovation. Our goal is to turn the discoveries of today, and tomorrow, into opportunities for all Albertans and our partners across Canada and around the world.

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More than Technology Push is Needed to Drive Innovation Success

Wendy Cukier
Vice President, Research and Innovation
Ryerson University

Much ink has spilled in the debate about Canada's position in global innovation rankings, its strategies to build a "culture" of innovation, and the roles of Universities, Government and the private sector. Without question, we need to leverage our investments in research excellence, particularly in science, technology, engineering and mathematics (STEM). Basic research is critical in part because we are notoriously bad at anticipating where excellent science will lead. And we all know of examples of discoveries that have transformed society in ways few could have planned or imagined.

However, the dominant models of technology transfer that focus on pushing research out of the lab and into the market produce uneven results at best. At Ryerson, researchers work with partners to develop next-generation technological solutions, but they also explore the strategic, organizational, and individual factors affecting the demand side. Our unique approach to collaborative and multi-disciplinary research is driving innovation, not just by creating new products, services and ventures in one of

the world's most successful incubators – the Digital Media Zone – but also in promoting innovation in existing organizations. With our partners, we look at user needs, organizational drivers, factors shaping personal preferences and behavior, and policy and legal issues, whether in digital technology, health care, advanced manufacturing, and the environment and sustainability. We work to understand the demand as well as the supply side of innovation.

Consider the lament that the under-utilization of digital technology in Canada is impeding growth and productivity improvements – whether in advanced manufacturing, health care, or education. Much of the focus has been on the supply side, on developing new tools, and on technology push, such as in mobile technologies, big data, and 3D visualization and printing. But new technologies only produce innovation if they are actually used. At Ryerson we draw not only on the STEM disciplines but on the important insights from Social Sciences, Humanities, and Design disciplines to better understand the processes of innovation, the complex and often irrational dimensions of human and organizational behavior, the dynamics of large social systems, the role of aesthetics and of identity, the importance of policy and ethical implications, the measurement of impact, and more.



Ryerson University researcher, Victor Yang, designs game changing surgical navigation system for spinal fusion surgeries.

For example, Ryerson's Centre for Cloud and Context-Aware Computing (RC4) partners with industry to develop leading-edge technology and tools, and also examines the impediments and drivers of mobile technology adoption and develops evidence-based strategies to promote them. We found, for example, that short-term business priorities often prevent companies, particularly Small and Medium Enterprises, from investing in ICT solutions even though, over time, these investments improve growth and

productivity. Our action-oriented research, with partners like the Ontario Chamber of Commerce, helps SMEs develop the absorptive capacity they need to innovate.

In our Advanced Manufacturing, Design and 3D Printing Lab, researchers work with leading 3D and augmented reality companies to develop applications to solve real-world needs. And we have industrial and interior designers, social psychologists, and consumer behavior experts working with aerospace engineers to design everything from aircraft interiors to amusement park rides that will create outstanding user experiences.

In health care, our researchers recently built a game-changing surgical navigation system and complementary surgical tools for use in spinal fusion surgeries. But it is not a shortage of leading-edge technology that is impeding innovation in Canadian health care. To help drive transformation, we also examine health system processes, organizational structures, patient-centered care, and policies in technology-enabled innovation.

The technology-driven 'if we build it they will come' approach produces uneven results. By effectively linking academics and industry partners, labs to markets, technology makers and technology users, we are more likely to succeed. At Ryerson, we are creating a culture of entrepreneurship where trial and error, agility, and adaptation are core to our innovation DNA. And true to our roots, we are eroding silos between disciplines to drive technological, economic and social innovation.

<p>DIGITAL MEDIA & TECHNOLOGY</p>				<p>MANAGEMENT, ENTREPRENEURSHIP & COMPETITIVENESS</p>		
<p>ENERGY & SUSTAINABILITY</p>	<p>CHALLENGING THE STATUS QUO. DRIVING INNOVATION.</p>	<p>HEALTH & WELL BEING</p>	<p>CITY BUILDING & SOCIAL JUSTICE</p>	<p>42%</p>	<p>INCREASE IN RESEARCH FUNDING OVER TWO YEARS</p>	
<p>TECHNOLOGICAL & INDUSTRIAL INNOVATION</p>	<p>Ryerson is Canada's comprehensive innovation university. Working with industry and community partners, we solve real world problems. The excellence and relevance of our research propels economic development and social change.</p>	<p>“ ONE OF CANADA'S RESEARCH UNIVERSITIES OF THE YEAR ”</p> <p>RESEARCH INFOSOURCE, 2014</p>	<p>DESIGN, CULTURE & CREATIVE INDUSTRIES</p>	<p>TEACHING & LEARNING FOR THE NEW ECONOMY</p>		

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