

OCE Story

The OCE story...past, present and future



For nearly 30 years, Ontario Centres of Excellence (OCE) has been playing a key role as a catalyst in advancing Ontario's economic transformation. Over the past three decades, Ontario and Canada have seen their traditional economic foundations shift from commodities-based, continentally-focused economies to those that are global, outward-looking and knowledge-based.

Prior to the creation of OCE, collaboration between industry and the province's academic institutions (universities, colleges, research hospitals) was limited. There was a noticeable disconnect between the quality and quantity of research being produced and the level of commercialization resulting from it.

That's where OCE comes in. Our role is to bridge that gap and create productive working partnerships between Ontario's industry and academia.

Today, OCE drives the commercialization of cutting-edge research across strategic market sectors to build the economy of tomorrow and secure Ontario's and Canada's global competitiveness. OCE focuses on areas that will deliver the greatest social and economic benefits through more and better jobs across the province.

OCE is a key partner in delivering Ontario's Innovation Agenda. We are funded by the Government of Ontario and a member of the Ontario Network of Entrepreneurs (ONE).

Through our flexible suite of programs, we continue to act as a catalyst for innovative business development helping companies to grow and achieve sustainable, commercial success and global competitiveness.



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How we do what we do: connect industry and academia – turning ideas into income

OCE takes great pride and care in our approach. We advance innovation through the successful commercialization of game-changing research and the forging of vibrant collaborations between industry and academia. Uniquely positioned in the collaboration and innovation space, OCE:

- · Works directly with industry and academia to identify partnership opportunities
- · Seeks breakthrough opportunities with the potential to leapfrog current technologies and techniques
- · Brokers connections; identifying and facilitating investment transactions
- Invests in the people and ideas that can generate good, sustainable Ontario jobs
- Helps companies connect the dots to the research community and investors

Our programs and services:

The Government of Ontario asked OCE, as part of the Ontario Network of Entrepreneurs (ONE), to administer the Industry Academic Collaboration Program (IACP). Funded by the province, IACP is designed to leverage the full capacity of Ontario's research institutions in order to help technology-based companies create jobs and prosperity by commercializing Ontario-based research discoveries.

Under IACP, OCE offers new programs that are responsive, flexible and adaptive to change, and better serve researchers, entrepreneurs and high-potential companies showing strong promise for commercial success. The program addresses the areas of Collaborative Commercialization and Entrepreneurial Talent.

Responding to recommendations of the Jobs and Prosperity Council report in June 2013, the Ontario government asked OCE to administer the Collaboration Voucher Program – a program designed to connect eligible Ontario companies with research institutions to address challenges that drive innovation and improve productivity and competitiveness. The voucher program consists of four different types: Voucher for Innovation and Productivity (VIP), Voucher for Commercialization, Voucher for E-Business (VEB) and the Voucher for Industry Association R&D Challenge (VIA).

OCE partners in this year's annual report

DIOIVIIVI	. 0	Sheridan Applied Research 17	iviejum	20
Wescast Industries Inc	10	Durham college17	Projexity	25
CHAR Technologies		Kela Medical20	Groupnotes	25
Komodo OpenLab	12	Novus Environmental 20	ChipCare	26
BrainFx	13	Chematria20	Sciencescape	26
Lafarge Canada Inc	14	Remay	EcoPlace Organics	26
InteraXon	15	Thalmic Labs 24	Laser Depth Dynamics	27
Niagara College		Spoonity25	Kinetica Dynamics	27

Letters









FROM THE CHAIR

In my first year as Chair of Ontario Centres of Excellence, it has been my privilege to work with an outstanding group of directors and senior management team led by Dr. Tom Corr. I have had a front row seat in working with an exciting group of innovators, researchers and entrepreneurs.

Using base funding provided by the Ontario Ministry of Research and Innovation (supplemented by contributions from industry partners and targeted program funding from other provinical ministries and agencies of the federal government), OCE applies a business model that is based on collaboration between academic institutions and entrepreneurs and supports the most promising innovations for advancing Ontario's economic advancement and job creation. This approach has the added advantage of de-risking innovations backed by OCE. Through its programs, services and the due diligence associated with properly vetting start-up companies, OCE helps attract the private-sector investors needed by these start-ups at a later stage in their development.

OCE is fortunate to have a close working relationship with the Ministry of Research and Innovation. In 2013, the Ontario government extended OCE's base funding for an additional three years. The Ministry has also now entrusted OCE with a number of additional early-stage commercialization programs. It is also encouraging to see an increasing level of collaboration between the federal and provincial governments on a number of commercialization programs. Together with industry partners and two levels of government, OCE funded \$40 million (\$107 million including leverage) in fiscal year 2012-13, sponsoring 395 start-ups and accounting for more than 2,500 new jobs.

In fall 2012, OCE's Board and senior management team developed a three-year strategic plan. Knowing that outcomes could be shaped by forces beyond our control, we developed a plan forecasting that OCE will be funding \$578 million with the leveraged support of industry partners and two levels of government, sponsoring 3,250 start-ups and generating up to 11,450 jobs over 3 years. Despite any challenges we may face, the board and management are confident that our goals can be fulfilled and look forward to working with all stakeholders in this shared vision for OCE.

Michael J. Nobrega, Chair, Board of Directors

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FROM THE PRESIDENT AND CEO

I believe the success of an organization like OCE can be measured in two key ways: how well we are advancing the priorities of the Ontario government and our success in building partnerships that better serve the province's businesses, entrepreneurs and research institutions. While job creation has been a longstanding imperative of the provincial government, it is now increasingly focusing special attention on youth employment. This will be reflected in OCE's work in the coming year as we begin to allocate a growing proportion of resources toward young entrepreneurship and experiential learning programs for students. This direction builds on the success we have seen in our Experiential Learning Program, which led to 281 start-ups getting underway last year. What better way to address youth employment than by helping students graduate with a degree and their own start-up company.

We have now also been entrusted with the delivery of Ontario's innovative new Collaboration Voucher Program, which helps companies access the expertise and resources in our academic institutions. This will undoubtedly be a boon to Ontario business by helping them address challenges and become more productive and competitive. Always looking for ways to support entrepreneurs. OCE took an aspect of the program a step further by bringing federally-funded partners to the table to create a whole-of-government approach. Now, it takes only one application to reach multiple potential funders. We are just as excited about the work we are doing in building inter-provincial partnerships. Last June, a partnership was launched between OCE and other key provincial players and the Québec Consortium for Drug Discovery (CQDM) to fund collaborative life sciences research projects between the two provinces. The partnership recently announced approval of its first two projects, both of which are OCE supported. This is one of the largest life sciences clusters in North America, second only to Boston and Minnesota.

The Ontario-Quebec Life Sciences corridor report will tell you more about our work over the past year and what is on the horizon for OCE. I feel fortunate to work in such a dynamic and exciting area and to be associated with the OCE team, whose commitment and ingenuity in getting things done for our stakeholders seems limitless.

Dr. Tom Corr. President and CEO

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Discussion









OCE Board Chair Michael Nobrega and President Tom Corr recently sat down together to discuss innovation leadership and 'disruptive innovation' – technologies that create new markets and disrupt existing ones - and OCE's role in advancing them.

What does it take for an organization to be a leader?

TC Our ability to forge partnerships that are mutually beneficial is key to our success, and that depends on the strength of our track record in consistently doing quality work and delivering results.

What are some of the areas where OCE is a leader or can aspire to be a leader, provincially and nationally?

- MN There is no other institution of our size in this province or the country that delivers the types and range of programs that we do. And because of the efficiency that we have brought to our processes, our capacity has substantially increased over time.
- TC We work hard to demonstrate to government that we have the right systems in place to ensure taxpayer money is invested wisely and that our process of internal and external reviews of projects ensures high quality decision-making
- MN Another area of leadership is about due diligence. We are ensuring that the projects we invest in on behalf of taxpayers are worthy and will create jobs and economic wealth for the province. And, through the work we do and the advice we provide, we are assisting companies get to the point where they become attractive to private investors. Due diligence clearance is OCE's seal of approval.

How do we do know if we are succeeding?

MN Some of the hard metrics we collect relate to job creation, the number of start-ups we've helped to create, as well as our role in helping to form industrial partnerships. But there are also softer metrics such as how many students have been engaged to work on entrepreneurial projects and as a result have obtained great real-world work experience and jobs.

Why are follow-on investment and leverage important metrics for OCE?

- **TC** When industry co-invests in collaborative projects with us, it's a signal that we are on the right track. It's important that industry has skin in the game. This year every \$1 OCE invested was leveraged 2.7 times.
- **MN** Yes, absolutely But we know that industry is serious when they actually provide the funding and in-kind support.

There is a lot of talk these days about 'disruptive innovation'. What is it and what is OCE's role on this front?

- TC One great example is 3D printing, technology that allows people to create products or prototypes on the fly without having to assemble them. This will be one of the most disruptive technologies we see in our lifetime. It will change the way manufacturing is done and how we as individuals get something delivered to us by a manufacturer.
 - It's very important that OCE works with government and industry associations to make the industry aware of what is on the horizon so they can use it to the benefit of their own companies. Our role is to identify opportunities to fund these new technologies and to help industry take the lead in adopting them, and bringing together people of common mind who can advance them.
- MN Another amazing example of disruptive technology is telematics, which is now in cars. This involves devices that are able to document how we accelerate or de-accelerate, how many times we brake, and are we exceeding speed limits. This tracked information may enable drivers to lower their insurance costs. Or it could mean that if you're driving safely you'll get 100 points on your affinity card or a credit toward your next coffee.

This is significantly going to change behaviour. Imagine what it might mean in terms of the use of fossil fuels, or the healthcare system if we have safer drivers, or the elimination of insurance fraud on insurance. This is the future.

What we do

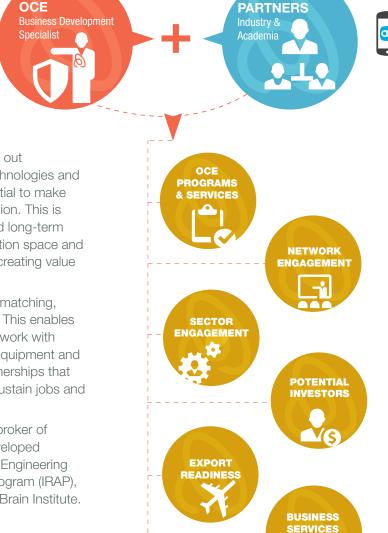
Ontario Centres of Excellence connects the dots...

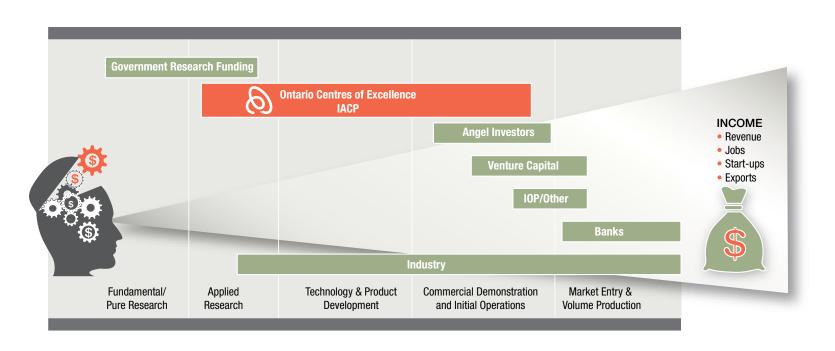
What makes OCE so effective at turning ideas into income is our approach to business development...and that starts with our people. Our team of skilled Business Development Managers (BDs) builds important relationships with industry partners to assess their needs. BDs also scour the halls and labs of academia to find out what's new on the research front.

More than looking for just what's "new and improved," OCE seeks out breakthrough innovations with the potential to leapfrog current technologies and techniques. We invest in people and ideas with the greatest potential to make Ontario a more prosperous province and a global leader in innovation. This is what motivates us: putting our business development acumen and long-term relationships with industry, stakeholders in key sectors, the innovation space and the colleges, universities and research hospitals to good use and creating value for Ontario taxpayers.

OCE's investments are made with industry partners committed to matching, and in most cases exceeding, the initial funding provided by OCE. This enables Ontario companies to develop top-tier intellectual property and to work with talented researchers who have access to unparalleled networks, equipment and resources. These collaborations become the basis for lasting partnerships that drive industry research, empower companies and help create or sustain jobs and build economic prosperity for Ontario.

With our focus on collaboration and partnerships, OCE acts as a broker of connections for industry and academia. We are proud to have developed partnerships with such organizations as the Natural Sciences and Engineering Research Council (NSERC), the Industrial Research Assistance Program (IRAP), the Canadian Youth Business Foundation (CYBF) and the Ontario Brain Institute. And there are more in the works.





Accelerating commercialization and de-risking start-ups

OCE has strong expertise in de-risking innovation. This helps attract private investors and other funders to new ventures, ensuring a good return for taxpayers. Many small- and medium-sized companies typically overlooked by traditional investors have achieved market success through OCE support.



OCE programs



COLLABORATIVE COMMERCIALIZATION

- Collaborate to Commercialize (C2C)
- Market Readiness
- Special Energy Fund Program
- High Performance Computing Initiative (IBM and SOSCIP)
- Colleges Ontario Network for Industry Innovation (CONII)
- Medical Sciences Proof of Principle (MSc PoP)
- Ontario-Quebec Partnership

COLLABORATION VOUCHER PROGRAM

- Voucher for Innovation and Productivity (VIP)
- Voucher for Commercialization
- Voucher for E-Business (VEB)
- Voucher for Industry Association R&D Challenge (VIA)

ENTREPRENEURIAL TALENT

- Entrepreneurship Fellowships
 - Martin Walmsley Fellowship for Entrepreneurship
 - OCE OBI Entrepreneurship Fellowships
 - David McFadden Energy Entrepreneur Challenge
 - **OCE-CYBF Partnership**

- Campus-Linked Acceleration (effective Fall 2013)
- SmartStart

Inside

Success Stories Page 8
What's New Page 16
Focus On Sectors Page 18
Looking Ahead Page 22
Entrepreneurship Page 24
Event Highlights Page 28
Awards Page 30
Board of Directors Page 32

2,563 JOBS

jobs created or sustained in industry that were directly attributable to OCE funded projects, the highest OCE history and a 43 per cent increase over last year

DELIVERING A

Return on Innovation

2012/13

OCE Inc. drives the commercialization of cutting-edge research across key market sectors to build the economy of tomorrow and secure Ontario's global competitiveness. In so doing, we help develop the next generation of innovators and entrepreneurs and are a key partner with Ontario's industry, universities, colleges, research hospitals, investors and governments.

hospitals, investors and government start-up companies

estblished

31.6%
ICT and
Digital Media

28.4% Advanced Health

16.8% Energy and Enviroment

23.2% Advanced Manufacturing

Percentage of OCE projects by sector

\$27 MILLION The \$27 million Invested by OCE in 808 research, commercialization and talent projects

\$77

MILLION

FOLLOW-ON INVESTMENT

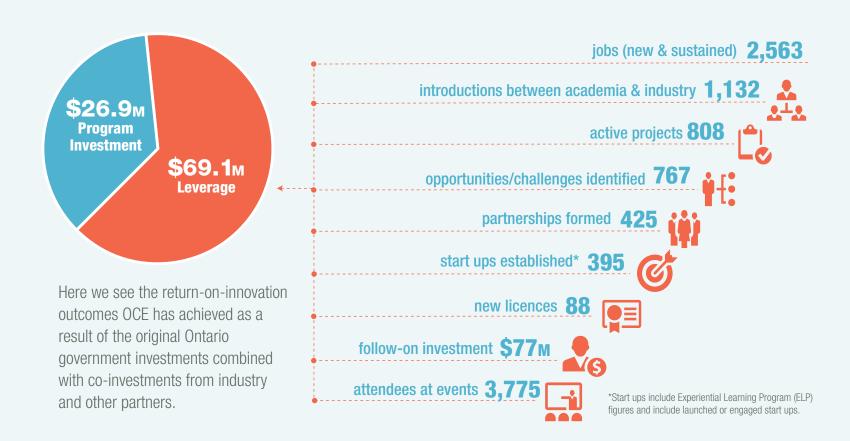
Primarily from Angel Investors and Venture Capitalists

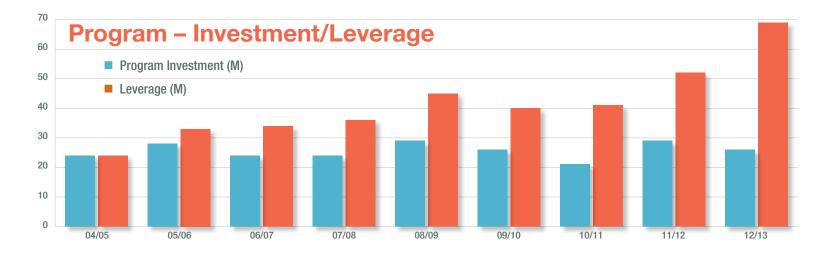
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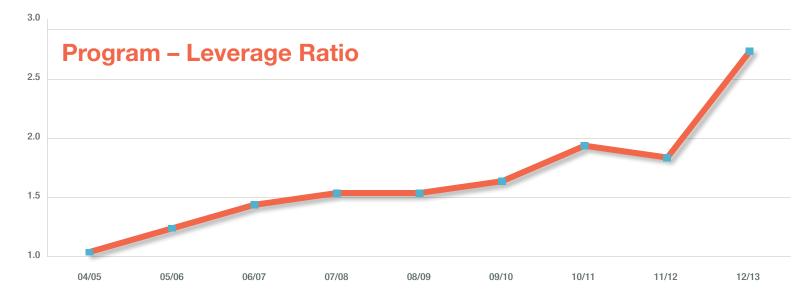
Leverage ratio, compared to an historical level of 1.5

\$69.1

leveraged in investment from industry and other partners, the highest in OCE history







Follow-on investment and leverage are an indication of OCE's strong success in attracting additional financial investment from the industrial sector and other partners.

OCE brings industry and academia together with great success

The Toyota, Maplesoft and the University of Waterloo partnership is just one example of OCE's many successes in the past year.

A core mandate of Ontario Centres of Excellence is bringing together the province's diverse business sector and its academic institutions to collaborate, create and problem solve with an eye to enhancing Ontario's economic prosperity.

A prime example is the collaboration between Toyota Motor Manufacturing Canada (TMMC), Maplesoft and University of Waterloo (illustrated on this page at the University of Waterloo's anechoic chamber).

OCE supported a collaborative research project to develop sophisticated software that speeds up the vehicle design process, allowing Toyota to build safer, more efficient vehicles more quickly than their competitors.

The unprecedented partnership, which also attracted significant funding from several other sources, allows Toyota to maintain its position as an automotive leader and manufacturer in Ontario.

Waterloo-based Maplesoft is commercializing the research in the form of innovative design, modeling and simulation products that will free up access to new markets.

Building on the success of the initial collaboration, OCE is now supporting a project to help TMMC develop and commercialize green automotive technologies for the Lexus RX Hybrid and electric SUV RAV 4 – built right here in Ontario.

On the following seven pages are more examples of successful OCE collaborations over the past financial year.

(From left) AGM, QC Engineering at Toyota Motor Manufacturing Canada Inc., Rich Young, OCE Regional Director for Central Ontario, John MacRitchie, Maplesoft Executive Vice-President and Chief Scientist, Dr. Laurent Bernardin, and Professor, Systems Design Engineering at University of Waterloo, Dr. John McPhee (right) in the university's new \$15 million anechoic chamber, designed to completely absorb reflections of sound and electromagnetic waves.

OCE Success Stories

Bionym 👨



SUCCESS STORY

Information, Communications and Digital Media

THE CHALLENGE – Passwords and PIN numbers to communicate our identity to machines can be a headache to remember and are vulnerable to security breaches. Current technologies like fingerprint and iris recognition software do not address the core issue - the ability to seamlessly balance convenience without compromising security.

■ THE BREAKTHROUGH

TECHNOLOGY – Toronto-based start-up Bionym has devised a system that uses a person's unique electrocardiogram (ECG) signature – an electrical signal produced by the heart – to replace passwords and PINs, offering the highest level of data protection. Users wear a wristband, called Nymi, which continuously communicates via Bluetooth to devices like smartphones and tablets, authenticating the user in a more secure and convenient way.

- Bionym early on with two rounds of Market Readiness and SmartStart program funding. Support from other funders soon followed. The company recently closed a \$1.4 million angel investment through the Creative Destruction Lab at the U of T's Rotman School of Management.
- WHERE THEY ARE NOW Bionym launched its product in September and is working to attract developers to create apps using their patented biometric technology that could one day unlock cars, verify financial transactions and replace house keys.

ROI RETURN ON INNOVATION

- OCE INVESTMENT: \$140,750
- · Currently employs ten people
- Recruiting another five people by end of 2013
- Project hiring another 50 people by 2015

Wescast Industries Inc.



SUCCESS STORY

Advanced Manufacturing Technologies

■ THE CHALLENGE – As the global automobile industry responds to consumer demands for higher performance, and lighter and more fuel efficient vehicles, auto part makers must develop new cost-effective and durable materials in order to stay competitive.

■ THE BREAKTHROUGH

TECHNOLOGY – Wescast Industries Inc., one of the world's leading producers of automotive exhaust manifolds and turbo charger housings, has developed a new high-performance alloy that can better withstand higher exhaust temperatures produced by many of today's vehicles than traditional cast iron materials. The new alloy will result in superior 'made in Ontario' automotive components.

- HOW OCE HELPED In 2010, OCE supported a Collaborative Research project between Wescast and McMaster University to better predict the service lifetime of the company's products. Wescast partnered with McMaster again in 2012 through OCE's Technical Problem Solving program to study the new alloy's microscopic properties, improve its machinability and determine how much it would cost to produce. Wescast has also engaged in three OCE Connections projects.
- where they are now Wescast's new low-cost, high performance alloy has attracted attention from several global auto manufacturers and the company is now working towards commercializing the material. Wescast currently employs 2,200 people and sells to markets in North America, Europe, Asia, Africa, South America and Australia.

RETURN ON INNOVATION

- OCE INVESTMENT: \$65,363
- Currently employs 668 people in Ontario
- 50 jobs maintained by development of new alloy

CHAR Technologies



SUCCESS STORY

Energy and Environment

■ THE CHALLENGE - In North America alone, renewable natural gas plants waste more than \$100 million a year on hydrogen sulfide-related corrosion. A trace contaminant found in biogas, hydrogen sulfide (H2S) causes significant damage to plant operating equipment resulting in frequent shutdowns, oil changes and maintenance.

■ THE BREAKTHROUGH

TECHNOLOGY - CHAR Technologies has developed SulfaCHAR, a charcoaltype filter made from by-products of the anaerobic digestion process that works the same way as a home water filter to remove H2S and convert it into a beneficial agricultural fertilizer additive, turning the SulfaCHAR into a costeffective, sustainable and truly zero-waste solution. CHAR Technologies owns the patent on the process of extraction.

■ HOW OCE HELPED - OCE worked with founder Andrew White early on and provided two rounds of Market Readiness funding to take the product out of the lab and into pilot testing. With OCE's support, CHAR Technologies was also able to build a demonstration trailer to help educate biogas plant owners on-site. The start-up is anticipating a large angel investment in December, 2013.

■ WHERE THEY ARE NOW – CHAR

Technologies is now engaged in discussions with several Ontario pilot sites, distributors, investors and customers. SulfaCHAR, to launch in May 2014, aims to capture at least 20 per cent of the Canadian biogas market.

ROI

RETURN ON INNOVATION

- OCE INVESTMENT: \$170,030
- · Currently employs one full time and two part time management staff
- Plans to hire another 10-20 in the next two to three years
- Four professors, three post-docs and a one PhD student are working on projects at three Universities

Komodo OpenLab



SUCCESS STORY

Information. Communications and Digital Media

■ THE CHALLENGE - Touchscreen technology has revolutionized the mobile devices market, and changed the way people live and interact. However, it presents a real challenge to those who have moderate to severe physical impairments and rely on assistive technologies like speech recognition.

■ THE BREAKTHROUGH

TECHNOLOGY - OCAD University spinoff, Komodo OpenLab has developed Tecla, an affordable hardware and software solution that enables access to mobile devices for those with motor impairments. Users can access and control their devices by using interfaces they are already familiar with, like wheelchair driving controls, to make phone calls, send emails and read eBooks with ease.

- HOW OCE HELPED OCE supported Komodo OpenLab early on with two rounds of Market Readiness funding to conduct beta testing, product development, marketing and a tradeshow mission. The company, now incubating at the OCE-supported Digital Media Zone at Ryerson University, has landed additional funding from FedDev and IRAP and was one of three winners of the Experiential Learning Student Competition at OCE's Discovery conference in May. Komodo OpenLab is currently preparing for an angel investment.
- WHERE THEY ARE NOW Komodo currently ships to 500 users in 18 countries. A new version of the hardware has just been released and the company is collaborating with the world's top tech companies.

ROI RETURN ON INNOVATION

- OCE INVESTMENT: \$109,943
- Currently employs three full-time and one part-time staff
- Another five Ryerson and OCAD students working on the project
- Plans to hire two positions by end of year and another three in 2014
- Company generated \$120,000 in revenue last fiscal year

SUCCESS STORY

Advanced Health Technologies





- THE CHALLENGE According to NeuroScience Canada, one in three Canadians will suffer from a brain disorder over the course of their lifetime. While severe impairments can be more readily detected by a health professional using pen and paper tests, it's significantly more difficult to detect milder cases where intervention can be important.
- **THE BREAKTHROUGH** TECHNOLOGY - Markham-based company, BrainFx, has married cuttingedge research with digital technology to create a clinical tablet-based assessment tool that measures the early and subtle effects of brain disorders like dementia and concussion. With early intervention, health professionals can minimize disability and improve quality of life. It also translates to significant savings for Ontario's healthcare system.
- HOW OCE HELPED OCE supported a Technical Problem Solving project in 2012 undertaken by BrainFx and York University researchers that helped the company scientifically validate its assessment tool. SmartStart support followed, allowing the founders (both occupational therapists) to create marketing materials and connect with more than 600 organizations and health professionals. The company has since received additional funding from MaRS and is gearing up for a fall angel investment.
- WHERE THEY ARE NOW BrainFx officially launched its assessment tool in September and has plans to pilot the tool in two major Ontario hospitals programs and community rehabilitation organizations this fall.

RETURN ON ROI **INNOVATION**

- OCE INVESTMENT: \$54,050
- · Currently employs four people
- · Plans to hire another six by end of 2013
- Projects another 30 jobs by September, 2015

Lafarge Canada Inc.



SUCCESS STORY

Energy and Environment

■ THE CHALLENGE - The cement industry is the third largest coal consuming sector in Ontario. Rising fuel costs, new regulations and air quality concerns are driving industrial facilities to seek out local, cleaner fuels. However, some emerging fuel sources, such as wood-based materials, pose a risk due to the possibility of spontaneous combustion during storage.

THE BREAKTHROUGH

TECHNOLOGY – Lafarge Canada Inc., in partnership with Queen's University, has taken the lead in developing fuel storage and safety systems and standards that address the unique handling characteristics of low carbon fuels. New safeguards and best practices, similar to those for diesel oil or gasoline, will ensure operational safety and set a precedent for all industries committed to building a more sustainable future.

- HOW OCE HELPED OCE supported the partnership between Queen's University and Lafarge Canada Inc. through its Technical Problem Solving program. The project, which explored the causes of spontaneous combustion and dust explosions, was a critical component of a major \$8 million multi-partner initiative to make the plant sustainable.
- October, Lafarge's plant in Bath, Ontario, started using construction and demolition wood sourced from local landfills to help power the plant. The company plans to keep exploring new low carbon fuel sources over the next few years.

RETURN ON INNOVATION

- OCE INVESTMENT: \$24,975
- 20-30 new jobs will result from the partnership over the next two years.
- For every 10 per cent of fossil fuel replacement with low carbon fuels, the Ontario Cement Industry will produce 200,000 tonnes less CO² emissions.

This OCE project contributed to the success of Lafarge's sustainability efforts and supports a major \$8 million partnership between Lafarge Canada Inc., Natural Resources Canada, the Department of Mechanical and Materials Engineering at Queen's University, Carbon Management Canada, Pollution Probe, WWF Canada, Queen's University, the Cement Association of Canada, Scott Environmental, and Rail Link to explore new ways to power Lafarge Canada's cement plants by re-using local surplus materials.

InteraXon ...



SUCCESS STORY

Information, Communications and Digital Media

■ THE CHALLENGE - Being unable to 'switch off' your mind can greatly affect your well-being. While there are many products and services to improve our physical fitness, brain fitness has remained relatively unexplored - until now.

■ THE BREAKTHROUGH

TECHNOLOGY - Toronto-based InteraXon has developed Muse, an attractive, comfortable brain-sensing headband that measures brainwaves in real-time and relays the information via Bluetooth to smartphones or tablets. Users can monitor and improve their brain health, reduce stress, increase productivity, and improve memory. In the future, Muse could be used to control lighting and other home automation systems, play games and more.

■ HOW OCE HELPED - OCE

supported InteraXon and researchers at the University of Toronto through two Technical Problem Solving projects to help the company improve brainwave signal processing and Bluetooth functionality. Since OCE's support, InteraXon has raised \$7.2 million in two separate funding rounds, including investments from Horizon Ventures, OMERS Ventures, and Ashton Kutcher's A-Grade Investments. They also raised \$250,000 from an Indiegogo crowd funding campaign.

■ WHERE THEY ARE NOW – InteraXon is preparing Muse for product launch in early 2014 and currently working with developers to create brain-sensing apps. Reservations for the product, are available at getyourmuse.com, have come from interested buyers in more than 25 countries.

ROI RETURN ON INNOVATION

- OCE INVESTMENT: \$45,897
- · Currently 18 full-time employees, total of 35 including contractors
- Will grow to 40 full-time employees over the next year
- 80 plus employees in the next three to five years
- InteraXon's technology has been featured in more than 1,000 media articles and television placements, including CNN, Wall Street Journal and New York Times

What's New

ONE of a kind

OCE has been a member of ONE for four years, but that now stands for the Ontario Network of Entrepreneurs.

The new brand introduced earlier this year aptly reflects ONE's mandate. Instrumental in delivering Ontario's Innovation Agenda, the ONE is a collaborative network of organizations fostering entrepreneurship by helping businesses and researchers commercialize ideas through a comprehensive suite of programs and services across the full commercialization continuum, from idea to market.

OCE is ONE's provincial coordinator for industry-academic collaboration programs and services.



Co-investing in Young Entrepreneurs

Ontario's young entrepreneurs now have a new funding avenue for businesses driven by post-secondary innovations, thanks to a new partnership between OCE and the Canadian Youth Business Foundation (CYBF).

Up to 10 projects will receive about \$100,000 each over two years with a \$50,000 OCE grant plus mentorship from CYBF in the first year of the award and matching financing from CYBF and the Business Development Bank of Canada in the second year.

OCE's new program offerings

OCE offers a range of programs that help take research from labs to the marketplace. Under our new Collaboration Voucher Program, launched in June 2013 on behalf of the Province of Ontario, we connect eligible Ontario companies with research institutions to address challenges and improve productivity, performance and competitiveness. Companies gain quick and easy access to the expertise and knowledge at Ontario universities, colleges and research hospitals to help their businesses succeed while making Ontario and Canada more prosperous.

We have also introduced the **Medical** Sciences Proof-of-Principle (MSc PoP) program to help commercialize promising life sciences and medical technology intellectual property (IP) developed at publicly funded academic research institutions in Ontario.

With our new Entrepreneurship Fellowships, we will be supporting the development of an Ontario student or graduating student to create an innovative start-up within a key economic sector in Ontario. These include new initiatives with the Canadian Youth Business Foundation and the Social Sciences and Humanities Research Council.

And, honouring a past OCE board chair, OCE has established the David McFadden Energy Entrepreneur Challenge, which invites university and college students from across Ontario's academic institutions to address challenges facing the energy sector. better place.

For details about our full suite of programs, see our website at www.oceontario.org/programs.

College innovation network brought under OCE umbrella

Ontario businesses can now turn to Ontario Centres of Excellence as the gateway for accessing the research, development and commercialization expertise of both colleges and universities in the province. The Colleges Ontario Network for Industry Innovation (CONII) has been integrated with OCE, a development arising out of a discussion between the colleges, OCE and the Ministry of Research and Innovation.

"CONII has laid solid groundwork with a suite of programs that complement what OCE is doing, says OCE President Dr. Tom Corr. "We are now building on the strengths of this work while ensuring that the college system is able to take full advantage of all that OCE has to offer. This integration is creating new opportunities and bringing significant benefit to our shared stakeholders."

In 2012-13, CONII invested \$826,000 in 43 new industry-led applied research projects, leveraging an additional \$1.3 million in cash and in-kind. More than 1,500 introductions were made between academia and industry and 92 college researchers and technicians and 170 students were engaged.

As a network of 24 colleges dedicated to connecting business to the applied research and commercialization expertise of Ontario's colleges, CONII offers business the innovative thinking, expertise and technology they need to become more competitive in a challenging global economy.

■ NIAGARA COLLEGE Fine-turning the hearing test



Ultimate Kiosk connects those in need of hearing assessments with the latest technology using a standalone kiosk similar to a blood-pressure monitoring station at a pharmacy.

Niagara College's student research associates worked with Ultimate Kiosk to enhance its software capabilities, creating specialized testing for noiseexposed workers, for example, while allowing the administrator to remotely manage many aspects of the software platform.

The company has increased revenue streams, profits and jobs and begun deploying a world-scale screening technology. Niagara was able to obtain additional OCE funding for the research team to bring the technology to computer tablets, add commercialization features and reduce ambient noise during a hearing test.

■ SHERIDAN APPLIED RESEARCH **Preventing pressure ulcers**



Pressure ulcers are a big challenge for elderly and immobile patients and a financial burden on the health-care system.

With OCE funding, Sheridan Applied Research and Innovation and HalTech Regional Innovation Centre helped company SensiMAT Systems assemble a project team from the college's School of Applied Computing. The researchers developed an iOS mobile application and software to enhance the SensiMAT for wheelchairs system and mitigate this health risk.

The mat with pressure sensors is inserted under a wheelchair cushion. Through the new software, sensors send pressure data to an application on the user's or caregiver's smartphone. SensiMAT 's proprietary PressureRisk™ algorithm alerts users of pressure build up, and recommends and tracks pressurerelieving exercises.

■ DURHAM COLLEGE Painless scheduling of patients



Organizing medical appointments for cancer patients can be logistically challenging.

To simplify scheduling, Bykart Software introduced the Chemotherapy Appointment Reservation Manager (CHARM) in 2009. It increases the number of patients that can be treated by automates the approval process and improving scheduling and communications amongst care providers. When introduced at the Odette Cancer Centre at Sunnybrook Health Sciences. the clinic was able to accept 47 per cent more patients.

Bykart wanted to expand the product to create a scalable and robust system for use in any hospital setting requiring patient management. With OCE funding support, some Durham college students and faculty worked with Bykart to transform CHARM into new appointment management tools.

Focus on Sectors









Building sector strength and new partnerships

OCE continues to develop strong sector opportunities that align with the province's innovation agenda for driving economic growth and position Ontario as a global leader. This work is now being supported by our new Voucher for Industry Association R&D Challenge, which enables us to connect industry associations or groups of companies to address sector-wide research and development challenges



Advanced Health

Partnering with Quebec in life sciences

Building on one of North America's top three medical/life sciences research clusters

OCE and other key players from Ontario have partnered with CQDM, which supports research projects that develop innovative tools and technologies to accelerate the drug discovery process. This is the first initiative out of the recently announced cross-provincial life sciences corridor and will fund collaborative life sciences research projects between Ontario and Quebec and build on each of their research strengths to increase innovation, productivity, investment and job creation. Other partners include MaRS Innovation and the Ontario Brain Institute.

The corridor, second only to Boston and Minnesota in life sciences research strength, is developing the tools or 'enabling technologies' that play a key role in the life sciences sector in drug discovery by making is easier for new drugs to reach the market and the process more efficient.

The two projects under the research partnership approved to date, both supported by OCE, are:

Developing an instrument add-on device to improve efficiency in drug screening processes - A partnership between McMaster University, Sunnybrook Research Institute, Spectral Applied Research in Richmond Hill and the National Optics Institute in Quebec City.

Developing a new drug discovery platform for cancer and metabolic disease therapies - A partnership between Toronto's InDanio Biosciences and McGill University in Montreal

Turning neuroscience researchers into 'neuro-entrepreneurs'

disorder diagnostics and therapeutics estimated at

The largest Canadian initiative of its kinds, the OCE-OBI Fellowship program offers awards of \$50.000 each to post-graduate (M.Sc., PhD and post-doctoral fellows) and early-stage



companies to support the commercialization of discoveries

Entrepreneurs also receive mentoring, training and access to follow-on funding. The fellowship is funded through a Ontario Brain Institute.

and we are pleased to support these fellowships," said Reza Moridi, Ontario's Minister of Research and Innovation. "We are home to hundreds of top neuroscientists and the research and innovation being done in this area is recognized around the world



Advanced Manufacturing

Exploring transformative technologies in mining for commercialization

OCE is supporting industry-academic partnerships that develop cutting-edge mining processes.

Mining companies face unprecedented challenges, including the need to go deeper and further afield to remote, often inaccessible locations. Add to this the growing imperative to ensure that environmentally sound practices for extracting and processing materials are employed.

The "ring of fire" near Hudson Bay, rich in the rare mineral chromite and others such as copper and zinc, is one of the most promising mineral development opportunities in Ontario in more than a century. But serious obstacles related

to transportation, extreme temperatures for underground workers and depths that defy traditional extraction methods must be overcome and new approaches developed for managing energy, water, waste and improved productivity.

OCE is also now partnering with the Centre for Excellence in Mining Innovation (CEMI) and the Natural Sciences and Engineering Research Council of Canada (NSERC) to fund R&D.

Development of these advanced technologies – applicable to all remote locations around the world - will help position Ontario as a global leader in mining

Safely bringing home the gold

Ontario mining companies produce about half of Canada's total gold output, making gold the province's most economically valuable mineral. But finding a way to extract gold from tailings that is both environmentally friendly and economically viable has proven elusive. Three engineering researchers at Laurentian University (Dr. Zhibin Ye; Dr. Eduard Guerra; and Dr. Ramesh Subramanian) and Barrick Gold Corp., the world's biggest gold producer, are working together to solve this problem under an OCE-supported industrial-academic partnership.

Scaling up for speed, productivity and safety

Because dangerous acids are used and released into the air, mining laboratories can be hazardous and environmentally unfriendly work environments. The revolutionary COLD BLOCKTM Digestion technology offers better analytical data, faster processing times, lower labor and operating costs and lower capital costs. Now, with funding support from OCE, CEMI, NSERC, and Barrick Gold, the industry leaders Vale, and SGS Mineral Services are working with researchers at Brock University to validate, scale up and implement the technology, developed by Chemquant.

Developing a manufacturing strategy for Ontario



Canadian Manufacturers and Exporters (CME) is working with OCE in the development of a strategy aimed at spurring innovation and propelling economic growth.

Informed by views and recommendations that have been solicited from across the sector. the strategy aims to address issues related to fostering a culture of innovation, career opportunities, markets and export funding and other financial and advisory support.

A workshop about the future of manufacturing held at OCE's Discovery this year attracted 60 sector representatives.

Focus on Sectors



ICT and Digital Media

High Performance Computing

Helping companies harness the power of HPC and Big Data

In a global economy, governments are increasingly recognizing the importance of high performance computing to unlocking innovation and gaining competitive edge. OCE is helping to bring small and medium-sized businesses, recognized as powerhouses of the economy, into the world of high performance computing and big data.

OCE is a key contributor to the Southern Ontario Smart Computer Innovation Platform (SOSCIP) which provides access to supercomputer technology for small to medium-sized enterprises (SMEs). In partnership with IBM and SOSCIP's seven university members, the program is helping to boost Ontario's economy by creating new jobs, products, services, technologies and businesses.

OCE is now working with some of Ontario's most exciting innovative companies



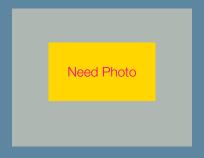
Cloud improves view and transfer of health records

that allows Ontarians to carry their complete medical file with them at all times. Featuring a secure, encrypted microchip that connects without special software to any computer, the card empowers individuals to take control of their medical record keeping and gain faster and more efficient healthcare service.

Using the SOSCIP Analytics Cloud technologies at Westner University, the company will be able to develop a cloud-based solution to aggregate, analyze, and standardize patient health records. This mobile-device based solution will enable clear and efficient transfer of information across medical practitioners, and provide patients with a single integrated view of their health records.

Simulating storms to improve building design

Guelph-based Novus Environmental, made up engineering consultants who specialize in air sustainable water, seeks to harmonize built and natural environments.



Now Novus will be able to integrate high resolution extreme weather simulations and climate projections with infrastructure in urban and rural areas, including buildings and transportation networks, to improve their design, sustainability and resiliency. This research leverages SOSCIP supercomputing and the University of Western's WindEEE dome, for world-class collaboration in wind and climate

Trading test tubes for computer prediction



Chematria is working to make drug discovery radically faster and cheaper by replacing test tubes with computer prediction. The University of Toronto Bioinformatics startup makes software that helps pharmaceutical companies determine what molecules can become medicines.

It is now leveraging a combination of massive data sets, intelligent machine learning algorithms and

super computing power through SOSCIP, which enables it to predict outcomes that are currently being uncovered through traditional experimentation in



Energy and Environment

Getting smart about energy

Helping Ontario build a global reputation in smart grid development, OCE is working with industry and academic partners to advance technology in data communication, energy storage and smart distribution systems.

Some projects currently funded by OCE's Special Energy Fund.

Smarter energy communications

Energent is collaborating with a team from Wilfrid Laurier University on communications software that can be installed on smart grid devices. The software will enable the devices to communicate with each other to facilitate smarter, more effective, efficient energy use. This will result in unparalleled reliability to the smart grid network.

Underwater storage for energy

Efficient scalable energy storage is potentially a disruptive technology in the energy sector. Hydrostor is working with the University of Windsor to pilot a patent-pending underwater storage system that converts electrical energy to compressed air. Air is kept in large balloon-like storage below the surface of large bodies of water until needed, drastically reducing costs.

Making the most of microgrids

Research on smart micro grids - small, scalable versions of centralized power systems - is still early stage. Hydro One Networks and the University of Waterloo are together developing new procedures to help smart micro grids reach full potential. The will allow the power utility to integrate distributed generation and renewable energy generation sources to increase reliability of electricity supply to the consumer.

Recognizing the water-energy nexus



There is increasing urgency to find solutions to aging and leaking infrastructure that not only conserve water but contribute to electricity conservation. From 30 to 60 per cent of Ontario's total electrical energy usage in urban areas is consumed by pushing water through defective infrastructure.

An OCE- hosted event in early 2013 drew close to 100 leading water system experts from across the

province to discuss infrastructure challenges, identify how current technologies can be improved and identify technology gaps that can be filled through R&D.

In partnership with NSERC, OCE has issued a call for R&D proposals that focus on creating the smart drinking water distribution systems and leading edge technologies that will position Ontario as a global leader in clean water

Thinking holistically about energy



With the goal of creating an energy system that optimizes the use of the existing energy infrastructure, Ontario energy leaders came together in late 2012 to explore integrating gas and electricity

Led by OCE, the event drew more than 70 senior officials from the natural gas and electricity sectors, including from Hydro One Networks,

Toronto Hydro Electric System, AECL, Cleanfield Energy, Energy Technology Innovation Canada, Enbridge, Union Gas and Hydrogenics. Also represented were Alberta Innovates Technology Futures and academic researchers from University of Waterloo, Ryerson and McMaster Universities and the University of Ontario Institute of Technology

Gaining access to energy when it's needed requires an energy system that can both incorporate and store energy from renewable sources and store surplus generation from nuclear sources when demand is low at night.

In partnership with NSERC, OCE issued a call for R&D projects, which are currently under review.

Looking Ahead

New Collaboration Voucher program spurs innovation and productivity

OCE has begun awarding vouchers under this new Ontario program, launched in June. Eligible Ontario companies receive a voucher, or credit, that can be redeemed for expertise and resources from Ontario universities colleges and research hospitals to advance productivity and commercialization.

Creating a one-stop application

As part of the new program, OCE is bringing together partners from provincial and federal governments to simplify the funding application process of industry-led academic research and innovation collaboration projects. "We felt it was important to bring our partners together to increase opportunities for support and create a convenient whole-of-government approach for company applicants," says Dr. Tom Corr, OCE's President and CEO.

To assist Ontario companies gain more support opportunities for the Voucher for Innovation and Productivity, OCE has partnered with the Canadian government through the Natural Sciences and Engineering Research Council of Canada (NSERC) and the National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP) as well as Connect Canada to create a simple process for referrals to complementary innovation services and funding. Eligibility criteria, support guidelines and all funding decisions will be those of the relevant partner organization.



"Ontario has an impressively large number of medical technology companies with outstanding competitive potential for the province. In helping to stimulate commercialization of these technologies, we are providing citizens with cutting edge health-care facilities and patient care while also generating economic development for the province."

> - Dr. Tom Corr, President and CEO Ontario Centres of Excellence

Investing in early-stage medical technologies

Commercializing medical and life sciences research is often a highly complex and unique process with extended timelines and special challenges. But as an area of these business ideas at the early stages.

Proof of Principle (POP) program that provides debt-free funding to early-stage are projects related to testing technology, engaging customers/end users, assessing commercial potential and developing business plans. MSc PoP projects may lead to follow-on support through OCE's Voucher for Commercialization or Market Readiness programs.



Voucher for Innovation and Productivity (VIP) up to \$20,000

 Helps eligible companies develop innovative products, processes and services with a focus on exporting to new markets



Voucher for Commercialization (VC) up to \$50,000

 Helps eligible businesses commercialize intellectual property developed at Ontario publicly funded academic research institutions via licensing or start-up opportunities



Voucher for E-Business (VEB) up to \$2,500

· Connects eligible main-street companies with contacts at Ontario colleges to help companies take advantage of online tools for driving market expansion including exports



Voucher for Industry Association R&D Challenge (VIA)

 Connects industry associations or groups of companies with Ontario's publicly funded academic research institutions to address sector-wide research and development challenges.



The Collaboration Voucher Program was one of the key recommendations of the Government of Ontario's Jobs & Prosperity Council.

> "By connecting Ontario companies with our world-leading researchers and academic resources, the Collaboration Voucher program will help our businesses become more innovative, productive and competitive."

> > - Hon. Reza Moridi, Ontario's Minister of Research and Innovation

First industry challenge voucher goes to Aerospace

OCE has awarded its first Voucher for Industry Association R&D Challenge academic projects leading to the technological breakthroughs and new enabling Engineering Research Council (NSERC) is a federal partner on this initiative.

With a remarkable history of trailblazing, Ontario's aerospace sector has become

The industry has an exceptionally strong track record of investing in research and technologies have been recognized around the world. Ontario boasts particular strengths in aircraft systems including landing gear systems, aircraft assembly, environmental conditioning, turbine engines, simulation systems and maintenance service providers.



"This in an exceptionally strong partnership that we expect to see yield amazing results for Ontario in terms of jobs and economic competitiveness," says OCE President Dr. Tom Corr. "The aerospace industry has immense potential as a major global exporter of leadingedge technology and its future is unlimited."

> - Dr. Tom Corr, President and CEO Ontario Centres of Excellence

Young Entrepreneurs

Gen Y a powerful generator of innovation



If the spirit, creativity and drive of the young entrepreneurs OCE worked with this year reflect the values and aspirations of a generation, the future looks bright. They show a strong tendency to gravitate toward ideas and projects that can make a difference - improve the lives of patients, help us eat better, rethink the urban landscape and empower neighborhoods. Or, in some cases, entrepreneurial imagination is channeled more towards ingenious products and services that improve convenience and lifestyle. Here are a few highlights from several OCE programs that help young entrepreneurs hone their ideas, connect with mentors and learn the business skills to create successful companies.

Experiential Learning Program (ELP)

The Experiential Learning Program (ELP) had another stand-out year. With OCE funding in 2012-13 of \$2.7 (leveraged to more than \$4.3 million), the program links postsecondary students and recent graduates to industry, leading to new innovations and start-ups. During the year, 302 projects were funded; 2,189 young entrepreneurs were engaged; 361 start-ups 'graduated' out of academic institutions; 956 jobs were created; 60 licenses were negotiated; and \$27.5 million in follow on investment was secured.

Remay A smooth roll out



After stumbling onto his invention accidentally while experimenting, Carleton University chemistry student Nick May has used his discovery to improve an habitual routine for women – shaving. May created the REMAY shaving gel, a portable and easy-to-use soft gel bar that is rolled on in place of shaving cream. He founded REMAY to market his innovation, using business training from resources at the ELP-supported Ottawa Young Entrepreneurs (OYE) and Invest Ottawa. REMAY is currently sold at 70 Canadian retailers, earning May several awards for his entrepreneurial success. He also pitched his business on an episode of CBC's Dragon's Den airing in late 2013.

ROI:

- Offering a first-of-its-kind product in a global market projected to reach \$33.3 billion by 2015
- May named the 2013 Student Entrepreneur National Champion by Enactus Canada, 2012 National Nicol Entrepreneurial Award Finalist and the 2012 Dragon's Den student pitch competition winner

Spoonity Rewarding loyalty



Recent graduates Myron Gomes and Max Bailey used their differing perspectives on the food industry to found Spoonity, a loyalty rewards platform for customers of quick-service restaurants. Spoonity offers invaluable data to businesses that allows them to improve customer loyalty and retention. Gomes and Bailey used support services from the Ottawa Young Entrepreneurs' Startup Garage and OCE's ELP including \$20,000 to launch their business, which has been customer-revenue funded since February, 2013. Current revenues are projected to increase more than 50 per cent by the end of 2013 to reach \$400,000, and double to \$800,000 by early 2014.

ROI:

- Company in talks to license part of its soon-to-be-patented technology to a billion dollar multinational loyalty provider
- Created five new jobs in software and business development

Mejuri Crowdsourcing creativity



Co-founder Noura Sakkijha leveraged 60 years of family experience in the jewelry industry to create Mejuri, an online platform that uses crowdsourcing to bring fine jewelry designers' ideas to life. Sakkijha uses a strong network of manufacturers to produce high quality products, and supports local designers as well as Canadian suppliers in the process. Operating out of Rverson University's Digital Media Zone, Mejuri earned \$25,000 in the ELP Competition at Discovery 2013. The funding has allowed them to hire a full-time developer and increase marketing resources to grow their social media presence to 35,000 followers.

ROI:

- Revenues have increased 65 per cent in the two months following the company's participation at Discovery
- · Company has increased its manufacturing capacity, which includes buying gemstones from Canadian suppliers as well as increasing local production in Toronto

Projexity Empowering neighbourhoods



Toronto-based start-up Projexity is an online crowdsourcing/ crowdfunding platform that empowers residents of Toronto and Philadelphia to help fund, design and build projects in their neighbourhoods. Founded at University of Waterloo's VeloCity by a team specializing in urban design and architecture, Projexity provides a support system for grassroots initiatives and also offers an opportunity for citizens who want to directly shape their communities. Since launching in April, 2013, Projexity has hosted four projects in Toronto and Philadelphia and helped raise more than \$35,000. It will be launching five new projects in the near future. Projexity was also one of 10 finalists in OCE's 2013 Social Enterprise Student Competition.

ROI:

- Funded a project that built a public patio outside Market 707, a unique urban space that's also Toronto's only shipping container market and an important part of the Alexandra Park community
- Recently hired two employees to establish relationships with community groups

Groupnotes Share your comments



Groupnotes is an online platform that lets users easily create and share comment sections on top of any website, serving a wide variety of social, educational and business applications. Established by Matt Gardner and his teammates at McMaster University's ELP-supported Xerox Centre for Engineering Entrepreneurship & Innovation (XCEEi), Groupnotes is already an award-winning company. In the past year Groupnotes earned the top spot in both the Startup Weekend Toronto and Startup Weekend's Global Startup competitions. Groupnotes also won \$25,000 as one of three finalists in OCE's ELP Competition at Discovery 2013, which has helped the team grow and further develop their platform.

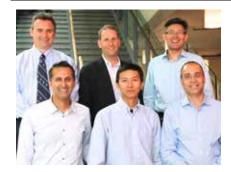
- Five jobs created
- \$150,000 follow-on investment secured since winning ELP Competition in May 2013

Young Entrepreneurs

SmartStart program

OCE's SmartStart program supports new ventures by Ontario's next generation entrepreneurs. These post-secondary students and recent graduates are taking the next step out of publicly funded academic institutions and research hospitals and the SmartStart program is there to facilitate next generation entrepreneurship training and development. This pilot program received funding through the Federal Economic Development Agency for Southern Ontario (FedDev Ontario).

ChipCare A single drop does it



Originating as a research project at the University of Toronto, ChipCare is bringing medical testing out of the lab and into the hands of patients worldwide with its portable handheld cell analyzer system. The integrated point-of-care and monitoring system provides stateof-the-art blood analysis at a fraction of the cost of the equivalent test performed in a routine medical laboratory. It also allows testing for different diseases with a single drop of blood. ChipCare received support under OCE's SmartStart program and is now developing the product with follow-on funding from OCE's Market Readiness program and other sources, such as MaRS Innovation.

ROI:

- Potential for significant social impact by improving global health monitoring and HIV testing in developing countries
- Secured \$925,000 in follow-on investment with further funding being finalized
- · Currently working towards a significant angel investment Ariel checking this with source

Sciencescape Researching in real time



Conducting scientific research can be a daunting task, as thousands of scholarly articles are published daily. To help cut through the clutter, Sciencescape has developed a revolutionary platform to radically change the way researchers connect with the latest and most important publications, people, places and products relevant to their fields. Sciencescape charts allow users to explore the history of research written on a particular topic, and articles are added in realtime to ensure researchers stay up-to-date on new developments. Sciencescape received SmartStart funding as part of OCE's partnership with Extreme Startups and received further support through the Market Readiness program.

ROI:

- Six jobs created since receiving SmartStart funding
- Secured \$1.1 million in follow-on investment from Extreme Startups, angel investors and additional committed funding

Social Innovation program

Social Innovation is about new ideas that work to address tough social and environmental challenges and improve peoples' lives. Social challenges are complex systems that require new science to understand them and new strategies to address them. Nonprofit organizations, along with social entrepreneurs, social enterprises, and social purpose businesses, continue to be a major source of social innovation in Canada.

EcoPlace Organics Keeping it local



University of Waterloo undergraduate student Emily Peat turned her passion for locally grown organic food into a thriving business. EcoPlace Organics, a London-based, small-scale distributor helps farmers and their communities by purchasing local certified organic foods and distributing them to families and individuals at home and work via home delivery service and a mobile produce market. EcoPlace Organics delivers to a minimum of 24 homes every week, and the new mobile market earned \$3,000 in revenues after its first month of operations. In March 2013, EcoPlace Organics' success won Emily \$20,000 in OCE's Social Enterprise Student Competition as well as the Nicol Entrepreneurship Award.

ROI:

- Total revenues from deliveries have reached \$20,000 since launch, with \$60,000 in total expected by the end of December, 2013
- Company has purchased over \$6,500 in produce from smallscale local organic farms, and \$1,500 from other small-scale organic producers

Martin Walmsely Fellowships

The Martin Walmsley Fellowship supports the commercialization of Ontario based academic Intellectual Property by allowing a Masters, Ph.D. or Post-Doctoral Fellow, graduate student or recent graduate within the last 3 years to create an innovative start-up with the potential sustainable economic impact in the province. The innovation must be based on science, technology or advanced engineering design.



Laser Depth Dynamics More latitude for Lasers



Queen's University PhD graduate Paul Webster's Inline Coherent Imaging (ICI) technology addresses a major problem for manufacturers by enabling precise, real-time quality control measurements of industrial laser processes such as welding and cutting, opening up new possibilities for laser use. Webster's innovation earned him OCE's 2012 Martin Walmsley Fellowship (tow years of funding) and PARTEQ's Atherton Entrepreneurship Award to help commercialize his technology. In 2013, Webster's company, Laser Depth Dynamics, developed the early commercial version of its laser depth measurement product and earned \$74,000 in revenue from its first sale. The company is performing well internationally having secured purchase orders from the USA, UK and Germany.

ROI:

- Received \$144,000 of follow-on investment from OCE's Market Readiness program, IRAP and private funds
- Three jobs created, including hiring of two STEM graduates

Kinetica Dynamics Doing away with sway



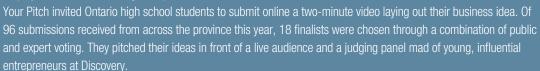
After earning a PhD in Structural Engineering at the University of Toronto, Michael Montgomery co-founded Kinetica Dynamics to commercialize his innovative technology. The Coupling Damper enables high-rise buildings to be built even taller while keeping them safe for tenants and eliminating the sickening swaying of the building. The tool's ability to absorb vibrations means it can also reduce damage from earthquakes, making the technology ideal for seismic areas worldwide. Since receiving OCE's \$50,000 one-year Martin Walmsley Fellowship, Montgomery has travelled the world and built relationships with key industry players, including Nippon Steel. Kinetica has upcoming projects in Toronto as well as with some of the future tallest buildings in the world.

ROI:

- Received \$64,000 Heffernan Commercialization Fellowship from U of T, as well as \$89,000 in Market Readiness I funding followed by \$125,000 in Market Readiness II funding from OCE
- Company currently has three employees, two full-time and one part-time, and plans are underway to hire additional Highly Qualified Personnel

Make your pitch or





These students won a reserved spot in Summer Company, the province's flagship youth entrepreneurship program. Through this program they'll receive business training and support to turn their business idea into a reality.

"Make Your Pitch competition shows the great creative and entrepreneurial strengths of Ontario's young people. Learning business startup skills will help students build their futures and will contribute to Ontario's competitiveness, job growth and future economy." -- Dr. Eric Hoskins, Minister of Economic Development, Trade and Employment



This year's winners were:

- Ramez Fazelyar, Toronto, The Guy Box
- Iman Jaffari, Toronto, Foodpost
- Nish Kapuria, Kingston, Voluntree
- Quinsea McKenna, Collingwood, Fundja
- George Oni, Hamilton, Kemies
- Riley Tsang, Windsor, Simplistic Lawn Care

Event Highlights







Awards

Ontario Centres of Excellence is proud to have worked with and supported this year's record number of award-winning companies

360pi formerly	2012 Canadian Innovation Exchange (CIX) Top 20 company
azaro)	2012 Red Herring 100 North America Finalist
	2013 Bootstrap Award for Innovation in Engineering and Technology, Gold Medal
	 2013 Bootstrap Award for fastest growing start-up
	2013 Finalist for IBM Beacon Award for Best Industry Solution for Retail
venir Medical	2012 Canadian Youth Business Foundation's Chairman's Award, Best Innovative Business
	• 2012 PROFIT Magazine FuEL Awards, Top 20 Under 30 honouree, Armen Bakirtzian
	2012 Member of Canadian Delegation at the G20 Young Entrepreneur Summit in Mexico, Armen
OR echnologies	Finalist 2013 bootstrap awards
edside inical estems	Participant in cdn techno accel program
enbria	Ottawa Business Journal and Ottawa Chamber of Commerce Top 40 Under 40, Mason Du
	2012 Customer Interaction Solutions Magazine, CRM Excellence Award
	2012 PROFIT Magazine FuEL Awards, Top 20 Under 30 honouree, Ronald Richardson
oinformatics lutions Inc	2013 Waterloo top employer award
onym	2012 Inventor of the Year Award, University of Toronto
KIN echnology	GSK-Canadian Institures of health research chair in neurosciences and Barbara Turnbull Award
ombardier ack Safe	 Institution of Engineering & Technology - Innovation in Embedded and Critical Systems award
ain FX	2013 YTA Technology Leadership Awards, Most Promising Start-Up
1 Systems	2012 Deloitte Canadian Technology Fast 50 List
).	2012 Deloitte North American Technology Fast 500 List
rbon Control stems Inc.	2012 County of Peterborough Environmental Recognition Award
stConneX	Professional engineers of ontario engineering medal for entrepreneurship

Cayce Medical/ Vitasound	2012 OCE mind to market award		
Char Technologies	2012 Peel Region RIC Centre's Innovator Idol		
Clearpath Robotics Inc.	 2013 Finalist Edison Award, Applied Technology 2013 Gold Stevie® Award for "Best New Product or Service of the Year – Industrial Products & Services" in the 10th Annual International Business Awards 		
Desire2Learn Incorporated	 2012 Microsoft U.S. Public Sector Partner of the Year Award 		
	2012 International Platinum MarCom Award		
	 2012 Canada's Top 100 Employers for Young People 		
	 2012 SIIA CODIE Best Postsecondary Course or Learning Management System, Finalist 		
	 2012 One of Canada's "Best Managed Companies" selected by Deloitte 		
DragonWave Inc.	 2012 Branham 300, Top 10 Canadian wireless solutions companies (ranked 4) 		
DVS	 International Society for the Advancement of Cytometry (ISAC) Cytometry A 2012 Best Paper Award 		
EidoSearch	 2012 Alpha Exchange Innovation Campaign, presented by Backbone, Grand Prize Winner 		
EION Wireless Inc.	2013 IT Expo Best in Show, Wireless		
Electrovaya Inc.	 2013 Corporate Knights Top 10 Most Promising Cleantech Companies Traded on a Canadian Exchange 		
Enermotion	 Top Energy Invention Award for 2013 from Popular Science 		
Fluidware	CATAAlliance Award for Business Leadership and Innovation		
Flybits	 2012 MIT's Technology Review World's Top 35 Innovators under 35, Dr. Hossein Rahnama 		
Forming Technologies Inc.	2012 Canadian Innovation Awards, Intel SME Innovation		
Greencore	CPIA 2012 Plastics Innovator Award		
Gridcentric Inc.	2012 University of Toronto Inventor of the Year Award (Gridcentric Founding Team)		
Ignis Innovation Inc	 finalist, 2012 mind to market award, 2012 Global Frost & Sullivan Technology Innovation Award 		

Impakt Protective	 2012 Explorium Entrepreneur Network Innovation in Engineering and Technology Award 2012 Ottawa Business Journal and Ottawa 	Polar Mobile Group Inc.	2012 Canadian Innovation Awards Ericsson Award for Outstanding Product Achievement (Content and Application Mobility Industry)	
	Chamber of Commerce Top 40 Under 40, Danny Crossman		2012 Achievers 50 Most Engaged Workplaces in Canada Award	
	 2012 Institute of Engineering & Technology, Sports Technology Award 		2012 Huffington Post Most Influential Millennials: Kunal Gupta	
Interface Biologics Inc	2013 Synergy Award for Innovation		• 2012 Marketing Magazine Top 30 Under 30: Kunal Gupta	
Kela Medical Inc.	2012 Member of Canadian Delegation at the G20 Young Entrepreneur Summit in Mexico, Admin Mexico,		2012 Canada's Most Fabulous Entrepreneurs: Kunal Gupta	
	 Arjun Kumar 2012 PROFIT Magazine FuEL Awards, Top 20 Under 30 honouree, Arjun Kumar 		Finalist in the NYC Data Week Startup Showcase	
Kinetica Dynamics	Martin Walmsley fellowship	Purifics ES Inc.	2012 ISSE Awards, Excellence in Filtration Technology, Brian Butters	
Komodo OpenLab Inc.	2012 TiEQuest TiE Institute Participant	QuantumDentalTechnologiesInc.	 2012 CAP-INO Medal for Outstanding Achievement in Applied Photonics, Dr. Andreas Mandelis 	
Miovision Technologies Inc.	 2012 Junior Achievement, Business of the Year Award 	Revelo Bikes	MaRS "Upstart" competition Winner	
IIIG.	 2012 Ontario Business Achievement Award, Small Business Category 	Rna	2012 Pathologist Award, Dr. Kenneth Pritzker	
20 GGM2020	2012 Peter Brojde Award for Canada's Next Generation of Executive Leadership, Kurtis	Diagnostics Inc.	2012 BioPartnering Future Europe, Rising Star Award, Finalist	
	McBride	Signority	Exploriem Lead to Win Bootstrap Award	
	2013 University of Waterloo Top Employer Award	Simple	2012 University of Toronto Connaught	
	2013 Greater KW Chamber of Commerce, Young The Manual Ma	Systems Inc.	Innovation Award	
ModiFace Inc.	Entrepreneur of the Year Award, Kurtis McBride2012 PROFIT Magazine's HOT 50 (ranked 40)	_	2012 TiEQuest Winner	
moun doc mo.	2012 THO IT Magazine 3 HOT 30 (taliked 40)	Smart Rotor	2012 TiEQuest Winner, Best Intellectual Property	
MyVoice Inc.	2012 Autism App of Distinction from Wynsum Arts	Systems	Honourable Mention from Sikorsky Innovations Entrepreneurial Challenge Competition Notation Associated Professional Competition Notation Associated Profession Associated Professio	
NexJ	2012 PROFIT 200 Canada's Fastest Growing	Sunwash Technologies	Venture London Business Competition Winner: Planned Business Category	
Systems Inc.	Companies, 1st Place 2012 Branham300 Top 250 Canadian	Sylleta Inc.	Gilbert Walker: University fo Toronto Invention of the Year	
	ICT Companies (ranked 122) • 2012 Canadian Channel Elite Awards, Best Cloud	Top Hat Monocle Inc.	 2012 Branham300, Top 25 Up and Coming ICT Companies 	
Nulogy	Solution and Best Mobile Solution Gold Award2012 CIX Top 20 Innovators, Canadian Innovation	Trojan Technologies	2012 AWWA ACE12 Green Ribbon Recipient	
	Exchange	Tyromer	Winner Recycling Idol Competition from Research Innovation and Commercialization Centre	
Coming Tech • 2012 York Te	2012 PricewaterhouseCoopers Top 10 Up-and- Coming Technology Company	Vive Nano	2012 Chemistry Council's EHS Performance	
	 2012 York Technology Alliance (YTA) Technology Leadership Award for Scale-Up Company of the Year 	Zephyr Sleep Technologies	Award 2012 TechRev Innovators Award for MATRx	
One Chip	Founder Valery Tolsikhin: Ottawa Immigrant Entrepreneur Award	Zighra	2012 Ottawa Business Journal and Ottawa Chamber of Commerce Top 40 Under 40,	
OtoSim Inc.	• 2012 TieQuest Awards, 3rd Place		Deepak Dutt	
	 2013 Canadian Association of Medical Educators, Certificate of Merit Award, Dr. Vito Forte 		2012 TiE50 Awards Finalist (TiE Silicon Valley)2012 Backbone/Alpha Exchange Innovation	
P&P Optica	2012 TieQuest Awards, 100 Award Winner		Campaign Contest – top 10 finalist	
PlantForm Corporation	 2012 Venture Forum "Most Promising Technology" 		2012 Ottawa's Rising Stars, Deepak Dutt2013 Bootstrap Award for Lead to Win, Bronze	

Ontario Centres of Excellence Governance

Board of Directors 2012/13

Michael J. Nobrega

President and Chief **Executive Officer OMERS**

EXECUTIVE COMMITTEE (CHAIR)

Brian Armstrong, Q.C.

Coporate Director EXECUTIVE COMMITTEE (VICE-CHAIR AND SECRETARY) GOVERNANCE COMMITTEE (CHAIR)

Dr. Robert Gillett*

Corporate Director EXECUTIVE COMMITTEE HUMAN RESOURCES AND COMPENSATION COMMITTEE

Colin Kelleher

President

Kelleher Financial Inc. EXECUTIVE COMMITTEE STRATEGIC PLANNING COMMITTEE (CHAIR)

Barbara Wilkes

Management Initiatives Inc. FINANCE AND AUDIT COMMITTEE (CHAIR) GOVERNANCE COMMITTEE

Andrew Abouchar

Partner

Tech Capital Partners Inc. FINANCE AND AUDIT COMMITTEE STRATEGIC PLANNING COMMITTEE

Dr. Hadi Mahabadi*

President and CEO CanWin Consulting Inc. FINANCE AND AUDIT COMMITTEE GOVERNANCE COMMITTEE

Caroline Somers

Co-CEO, Cassidy Bay Group & Chair, Capital Angel Network FINANCE AND AUDIT COMMITTEE STRATEGIC PLANNING COMMITTEE

Debbie Fischer

Corporate Director HUMAN RESOURCES AND COMPENSATION COMMITTEE (CHAIR) GOVERNANCE COMMITTEE

Dr. Amit Chakma

President and Vice-Chancellor Western University HUMAN RESOURCES AND COMPENSATION COMMITTEE NOMINATING COMMITTEE

Dr. Mo Elbestawi*

Vice-President, Research and International Affairs McMaster University HUMAN RESOURCES AND COMPENSATION COMMITTEE STRATEGIC PLANNING COMMITTEE

Bob Richardson*

President Devon Group

GOVERNANCE COMMITTEE NOMINATING COMMITTEE

Dr. Molly S. Shoichet*

Professor, Chemical Engineering and Applied Chemistry University of Toronto EXECUTIVE COMMITTEE NOMINATING COMMITTEE (CHAIR)

William J. McClean

Corporate Director NOMINATING COMMITTEE STRATEGIC PLANNING COMMITTEE

Dr. Tom Corr

(ex-officio) President and CEO Ontario Centres of Excellence

*Absent from photo

Observers

(Board of Directors)

Wendy Tilford

Deputy Minister Ministry of Economic Development, Trade and Employment, Ministry of Research and Innovation

Bill Mantel

Assistant Deputy Minister Research, Commercialization and Entrepreneurship Division, Ministry of Economic Development, Trade and Employment, Ministry of Research and Innovation

Brigit Viens

Senior Program Manager, Networks of Centres of Excellence of Canada (NCE)



Executive Team

Dr. Tom Corr President and CEO

Bob Civak

Senior Vice President, Business **Development Operations**

Narinder Dehal

Vice President, Finance, Programs and Administration

Anne Wettlaufer

Vice President, Marketing and Communications

Claudia Krywiak

Vice President, Corporate Planning and Development

Sharon Jobity

Vice President, Human Resources

Ontario Centres of Excellence Inc. is a member of the Institute of Corporate Directors (ICD).



Ontario Centres of Excellence promotes a healthy workplace, which is key to wellbeing and, by extension, innovation.





FOR MORE INFORMATION oce-ontario.org



Ontario Centres of Excellence is a member of





OCE At A Glance

- The Ontario Centres of Excellence not-for-profit program was formally established in 1987 with seven independent centres that evolved and amalgamated into Ontario Centres of Excellence Inc. (OCE), a notfor-profit organization, in 2004.
- In partnership with industry, OCE co-invests to commercialize innovation originating in the province's colleges, universities and research hospitals.
- OCE efforts converge on four key sector areas - advanced manufacturing; advanced health technologies; energy and environment; and information, communications and digital media, including High Performance Computing.
- OCE connects the dots between industry and academia while providing and identifying additional sources for funding and support. We support Ontario's Innovation Agenda by ensuring the best ideas get the support they need to get to market and create jobs.
- OCE deploys experienced teams of Business Development Managers to all corners of the province. We have a province-wide footprint with offices in Toronto, Mississauga, Waterloo, Ottawa, London, Hamilton and Markham.
- OCE is a member of the Ontario Network of Entrepreneurs (ONE), Ontario's, client-focused, province-wide innovation network.
- Within the ONE, OCE delivers the Industry Academic Collaboration Program (IACP).
- In 2013, OCE launched the industry-focused Collaboration Voucher Program, which it administers on behalf of the Province of Ontario.
- In recent years, OCE has introduced a number of new initiatives: the Experiential Learning Program, the Social Innovation program, High Performance Computing Initiative (with IBM), OCE/NSERC Industrial R&D Fellowships and the SmartStart program.

- OCE provides real-world commercialization experiences for Ontario's next generation of innovators and entrepreneurs.
- Our Entrepreneurial Talent program offerings give students and recent graduates the opportunity to learn by doing and to pursue their innovations fulltime through various Entrepreneurship Fellowships.
- OCE excels at leveraging dollars to help drive innovation in Ontario - more than doubling the value of the original investment.
- In 2012/13, OCE invested \$27 million in 808 projects and leveraged \$69.1 million from industry and other partners in further investments.
- OCE has developed expertise in "de-risking" innovation. A number of small- and-medium-sized companies typically overlooked by traditional investors have achieved market success through OCE support.
- OCE partners with key players in the innovation ecosystem to drive commercialization, knowledge mobilization, and the development of highly qualified personnel. Our partners include NSERC, NRC-IRAP, Connect Canada, CYBF, Ontario Brain Institute, FedDev Ontario, OMERS and more.
- In 2012/13, 2,563 jobs were created or sustained in industry as a direct result of OCE-funded projects and 395 startup companies were established.
- This past year more than 60 OCE-supported companies were recognized with national or international awards.
- OCE's annual award-winning Discovery conference is Canada's premier innovation and commercialization event showcasing leading-edge technologies and research. Discovery's 2012 edition was named best international large-scale trade show by the International Special Events Society.
- Each year, Discovery attracts more than 2,500 attendees and 300 exhibitors. Discovery was previously named Canada's best trade show in 2010 and 2011 at the Canadian Event Industry Star Awards.



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