



# ROI | RETURN ON INNOVATION

ANNUAL REPORT 2015/2016

Ontario Centres of Excellence Inc.



Ontario Centres of Excellence

Where Next Happens

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Ontario





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## THE OCE STORY

# Past, Present and Future

For 30 years Ontario Centres of Excellence 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, North American-focused economies to those that are global, outward-looking and innovation-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 applied research being produced and the level of commercialization resulting from it.

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

Today's OCE has become a key partner to government, industry and academia in delivering Ontario's Innovation Agenda. Our mandate is to drive the growth of a globally competitive innovation-based economy in Ontario and our strategy is to spur innovation by:

- Facilitating and supporting collaborative R&D between industry and academia
- Accelerating the commercialization of leading-edge technologies
- Fostering youth and student entrepreneurship
- Leading and developing industry networks around high potential projects

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



#### ABOUT OUR COVER

Collaboration and the excitement of a back-of-the-napkin idea taking shape are at the heart of OCE's work in the innovation space. Thanks to all those in the innovation ecosystem who collaborated in the making of this year's OCE Annual Report. Thanks also to Toronto barista **Brian Leonard** (@BaristaBrian) for his exceptional latte art.

### OCE's Vision

*Prosperity from Innovation – an Ontario where bright minds connect to create prosperity*

# DRIVING THE GROWTH OF A GLOBALLY COMPETITIVE ECONOMY IN ONTARIO

## Who We Serve

- Start-up companies
- Small- and medium-sized enterprises (SMEs)
- Large companies
- Entrepreneurs
- Principal investigators and students from Ontario colleges, universities and research hospitals
- Technology transfer and industry liaison offices
- Investors
- Ontario Network of Entrepreneurs

## More About Our Role and Approach

Our role is that of an innovation catalyst. We drive innovation directly by supporting SMEs and emerging firms in commercializing creative new technologies and services and indirectly by helping to build innovation capacity within regions and sectors.

We connect both new and emerging companies and large established businesses to the resources and expertise in our world-class universities, colleges and research hospitals. Through our investments in collaborative R&D, knowledge transfer between industry and academia and high potential technology-based start-ups, we drive the commercialization of new technologies across many sectors, maximizing Ontario's competitive edge in the global economy. We also support young entrepreneurs and help foster a culture of entrepreneurship on campuses across the province.

OCE's programs and strategic initiatives are informed by continuous dialogue with our industry, academic and government stakeholders. This enables us to identify and address barriers to collaboration and challenges arising from commercialization. It also strongly positions us to capitalize on the exciting new opportunities arising from publicly funded research.

As a not-for-profit organization, OCE receives operational and program funding from the Ontario government as well as the federal government. We are a proud member of the Ontario Network of Entrepreneurs (ONE).

## OCE'S GUIDING PRINCIPLES

- A novel whole-of-government/ one-stop shop approach that enables entrepreneurs and companies to apply for both provincial and federal support through a single application and review process
- A focus on partnerships to augment OCE funding through co-funding agreements with various levels of government and industry, expanding support for Ontario's industries and academic institutions and increasing economic development
- Strong attention to industry pull and demand as a means of addressing industry needs related to innovation, productivity and commercialization challenges
- Proven expertise in de-risking innovation to help new ventures attract angel and venture capital investors and the funding that leads to market success
- A focus on disruptive and enabling technology as a means of helping Ontario take advantage of the new economy and build new industries that create jobs and build competitive strength



### What kind of year did OCE have in 2015-16?

**TOM:** This past year has taken OCE to a new plateau in terms of the impact that we are able to have on Ontario's innovation system. We've evolved in recent years from being largely a funder of industry-academic projects to managing large industry driven province-wide programs. We are taking on large-scale programs that are of great importance to the province.

It's extremely gratifying that the province has entrusted us with these major projects in important strategic areas and counts on us to move quickly and efficiently to produce results. It's also a point of pride for the OCE team that we have developed this particular expertise and capacity and are able to move into exciting new program areas and new directions.

**MICHAEL:** The direction over the past year has been to think big and to pivot the organization to large programs in sectors with a critical industrial presence in the province.

As the Ontario government has become focused on industries and sectors where the province already has strengths and can build on those strengths, it has looked to OCE to help move those sectors ahead and help build new industries. This includes work on connected and automated vehicles, cybersecurity, cognitive computing and greenhouse gas reduction. There is now much more pressure on OCE to work with major industrial companies to be a change agent in some of the major

sectors of the economy, including solutions to climate change.

### What would you name as the year's top three highlights for OCE?

**TOM:** This year we launched a \$74 million TargetGHG program aimed at helping large industry emitters reduce greenhouse gas emissions. We are very proud to be a part of this important initiative. We also continue to work collaboratively with our Alberta and Quebec partners to jointly advance innovation. Also, OCE is partnering with IBM Canada on the IBM Innovation Incubator Project, which will deliver an integrated suite of disruptive advanced computing infrastructure and programming to Ontario's small- and medium-sized enterprises. This is supported by an Ontario grant of over \$22 million through the Jobs and Prosperity Fund — Strategic Partnership Stream and \$24.75 million from IBM.

### Why has OCE been growing?

**MICHAEL:** The pace of change in the economy is accelerating and governments are looking to professional organizations to assist them in identifying new opportunities and partnerships to strengthen innovation and productivity. I am pleased that OCE is being recognized as having a professional and proven program delivery platform and is now the go-to place for delivering major projects with industry and the academic community as trusted partners.

**TOM:** We have put the infrastructure in place with our ten offices around the province. We have the foundation and expertise to deliver new programs as directed by the province and that includes the large-scale projects now under way, many of which include partnerships with other provinces, namely Quebec and Alberta, along with the federal government and its agencies. In effect, we are able to leverage provincial funding by attracting additional funding from industry and other government partners. This has enabled us to greatly increase the overall scope and impact of the innovative projects and programs that we manage.

**MICHAEL:** OCE has not only shown that it can be entrusted to spend and invest wisely on behalf of taxpayers and create job opportunities for young people, but that it can also work creatively and productively with large industrial companies, including IBM, Lockheed Martin, Telus and many others.

### How does OCE support industry?

**TOM:** We are able to play a very valuable role for industry. We de-risk research for large companies by co-funding it, and helping industry to get the best researchers to work on their projects. And we also de-risk small-and medium-sized companies for the investment communities by funding these companies at a stage where venture capitalists and angel investors find it a little too early to invest. We're helping to fund these

# HELPING ONTARIO PIVOT TO A NEW ECONOMY

A discussion between Ontario Centres of Excellence Board Chair Michael Nobrega and President and CEO Dr. Tom Corr

companies to the point that they will attract private investors.

**MICHAEL:** It takes a certain set of skills and expertise to bring the large industry players, the SME community and the research community together to build the collaborations that will make things happen. Several of these groups that we are bringing together are fierce competitors. We bring them together around the table and get them to agree to partner on areas where they would normally be competitive, which is definitely a breakthrough.

In areas such as cybersecurity, cognitive computing and quantum computing, you're dealing with industry giants, which are normally extremely competitive; to bring these players together on something that is of great importance to the economic strength of the province and to Canada takes a skill set that OCE has developed over many years.

## Where else is OCE acting as a game-changer?

**TOM:** There is a growing awareness of the value of new technology procurement for both business and the public service. We know the role that governments can play as consumers and early adopters of innovation. OCE is playing a strong role in helping to enhance and develop programs that assist governments in embracing innovative products and services, while at the same time using the procurement power of the government to drive the development of new and disruptive technologies.

**MICHAEL:** This is yet another area where OCE can be a game changer. The massive purchasing power of governments represents huge potential to drive fundamental improvements in areas such as health care, education and transportation while also supporting the growth of an economy fuelled by innovation. Many of these innovations originate in our colleges, universities and research hospitals and have been supported through tax dollars, so the public should benefit from these exciting new advancements.

## What is distinctive about OCE's model?

**TOM:** We bring to the table resources from both industry, academia and government in a

way that benefits the Ontario and Canadian taxpayer. We have now got to the point where industry and government are co-funding program staff at OCE, which introduces an entirely new level of cooperation to our whole-of-government approach. We are also providing significant benefit to our industry stakeholders by bringing innovation opportunities forth and helping move the technology to the commercialization stage by sharing the cost of its development and helping de-risk industry's investment in these projects. And for academic stakeholders, there are many more opportunities for them to do applied research to meet the needs of our industry partners.

## THANK YOU FROM OCE'S PRESIDENT AND CHAIR

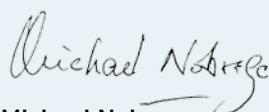
For an organization to grow and take on as many new challenges as OCE has this past year requires an extraordinary team of people committed to the cause of innovation and economic development in Ontario.

We feel extremely fortunate that OCE has succeeded in attracting such talented and highly qualified individuals and we are continually impressed by the high level of professionalism and passion that these people bring to work every day.

Thank you also to our volunteer Board of Directors, comprised of some of Ontario's most distinguished industry and academic leaders. With their visionary outlook and highly principled approach to governance, they have helped steer OCE during a critical time of growth and transition.

OCE is continually challenged and inspired by its mandate as a trusted program delivery partner to the Government of Ontario and the Canadian government. We take considerable pride in our role of advancing their visions for innovation and economic prosperity, and in supporting all our public- and private-sector partners.

And all of us who work at OCE on the front-lines of innovation and commercialization are rewarded every day by our interactions with companies and young entrepreneurs whose innovative spirit is contagious.



**Michael Nobrega**  
Board Chair



**Dr. Tom Corr**  
President and CEO



Invested by OCE in Ontario's innovation ecosystem

**\$ 44** Million

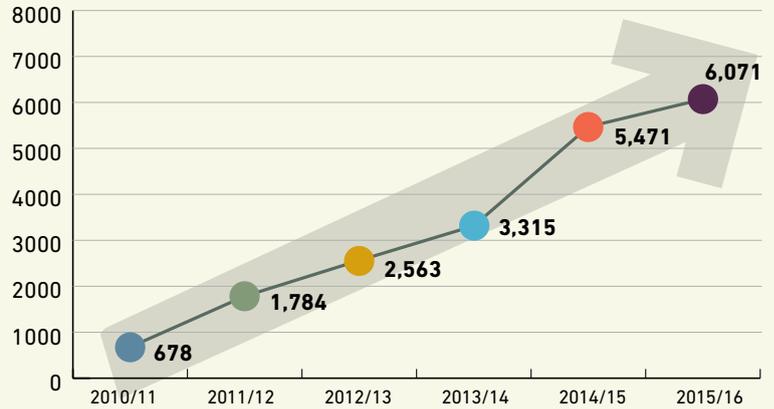
**762** New R&D, commercialization and talent projects managed by OCE

Cash or in-kind contributions from our partners

**\$ 91.5** Million

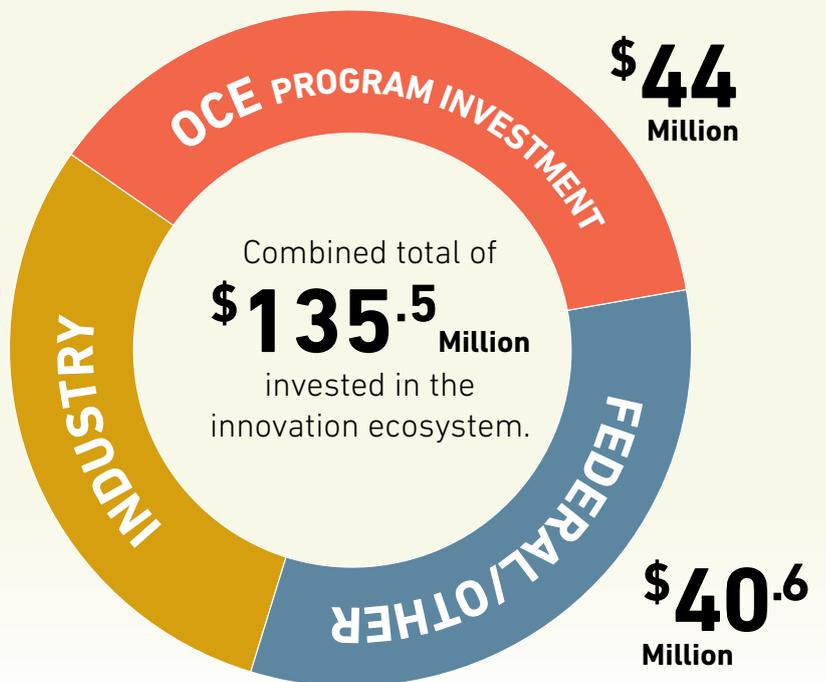
New or retained jobs directly attributed to OCE-funded projects, the highest in OCE history and an **11 per cent increase** over last year's 5,471 jobs.

**6,071** Jobs



Here we see the **Return-on-Innovation** investment OCE has achieved as a result of Ontario government funding combined with co-investments from industry and other partners, including the federal government.

**\$50.9** Million



# DELIVERING A RETURN ON INNOVATION

## Committed almost **3X** the provincial funding

The leverage that was attracted was 1.9 times the provincial funding received allowing us to commit almost **3 times** the provincial funding

**Start-ups** created or supported directly through OCE seed financing or indirectly through other OCE programs

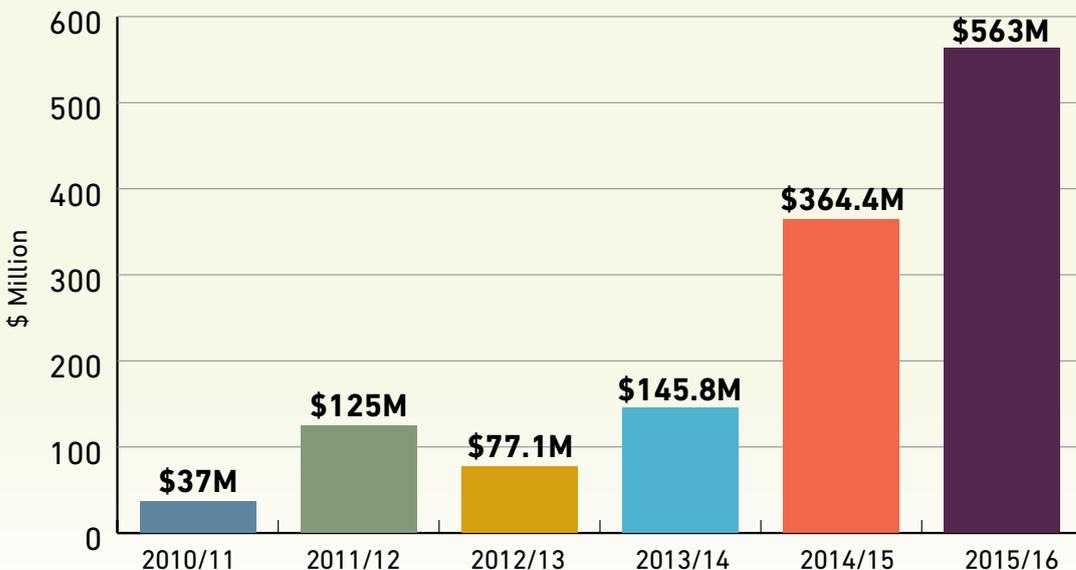
**31.2 per cent higher than last year**

**1,566**

Incremental sales by client companies as a direct result of OCE-funded projects, the highest in OCE history and **almost four times** last year's \$42.4 million

**\$ 165.2**  
Million

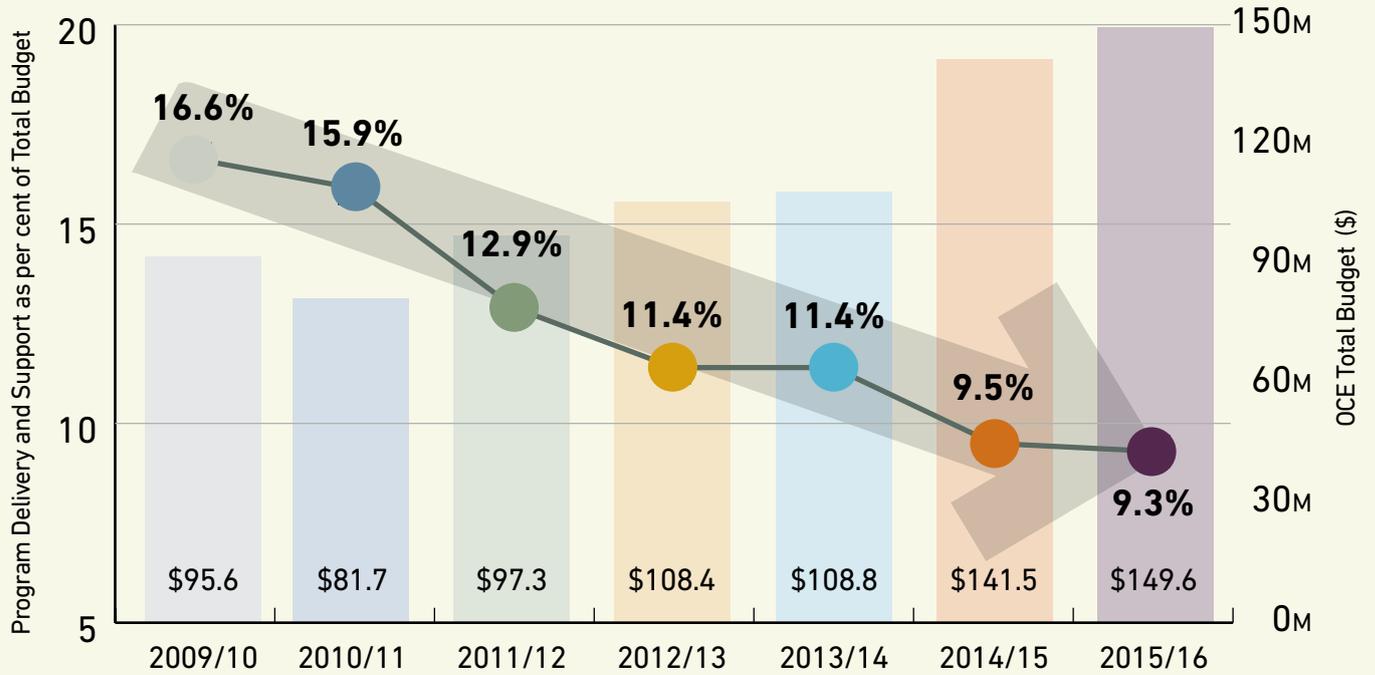
## Increase in Follow-on Investment from 2010/11 to 2015/16



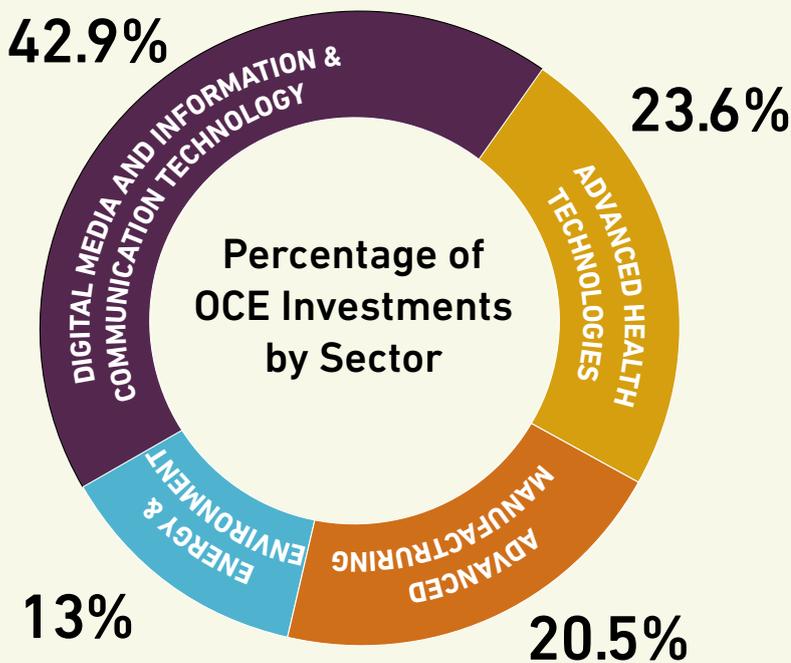
**\$ 563**  
Million

Follow-on investment in client companies primarily from angel investors and venture capitalists, the highest in OCE history and a **54.5 per cent increase** over last year

## Efficiency - OCE Program Delivery



OCE continues to see its cost of delivering programs as a percentage of total funding deployed decrease from 16.6 per cent in 2009/10 to **9.3 per cent in 2015/16**. This efficiency outcome is the result of an ongoing commitment to efficiency, the leveraging of our existing organization to deliver new programs, and ongoing streamlining measures.



These broad industry sectors have been identified by the Government as being key to the Ontario economy as they represent large-scale global market opportunities.

**OCE's sector strategy:**

- Concentrates investment for maximum impact
- Increases return on investment
- Expands the organization's reach by focusing on new opportunities and new partners
- Pulls together pockets of strength across the province to position Ontario as a global leader
- Ensures the voice of industry is heard through strategic level engagement with industry

**4,570**

**Highly Qualified Personnel** – researchers, students and private-sector employees whose knowledge and skills were enhanced through their work with OCE-supported projects

**44,169**

**Attendees** – OCE-hosted and supported events

**66**

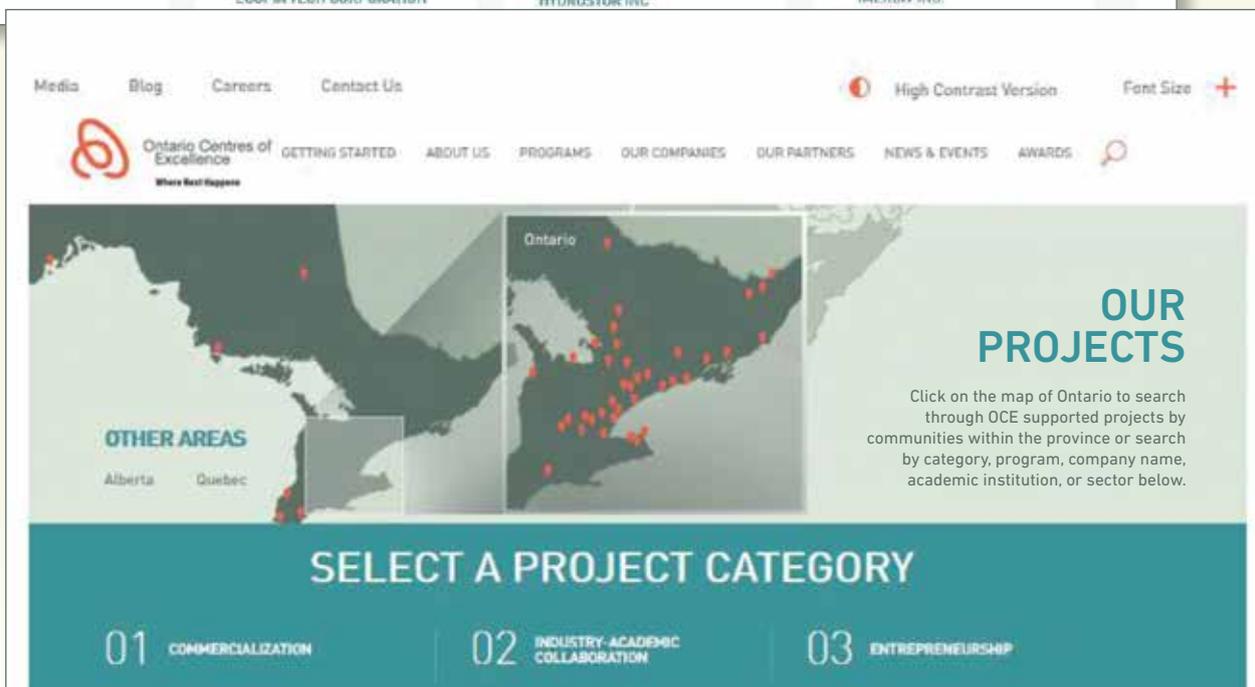
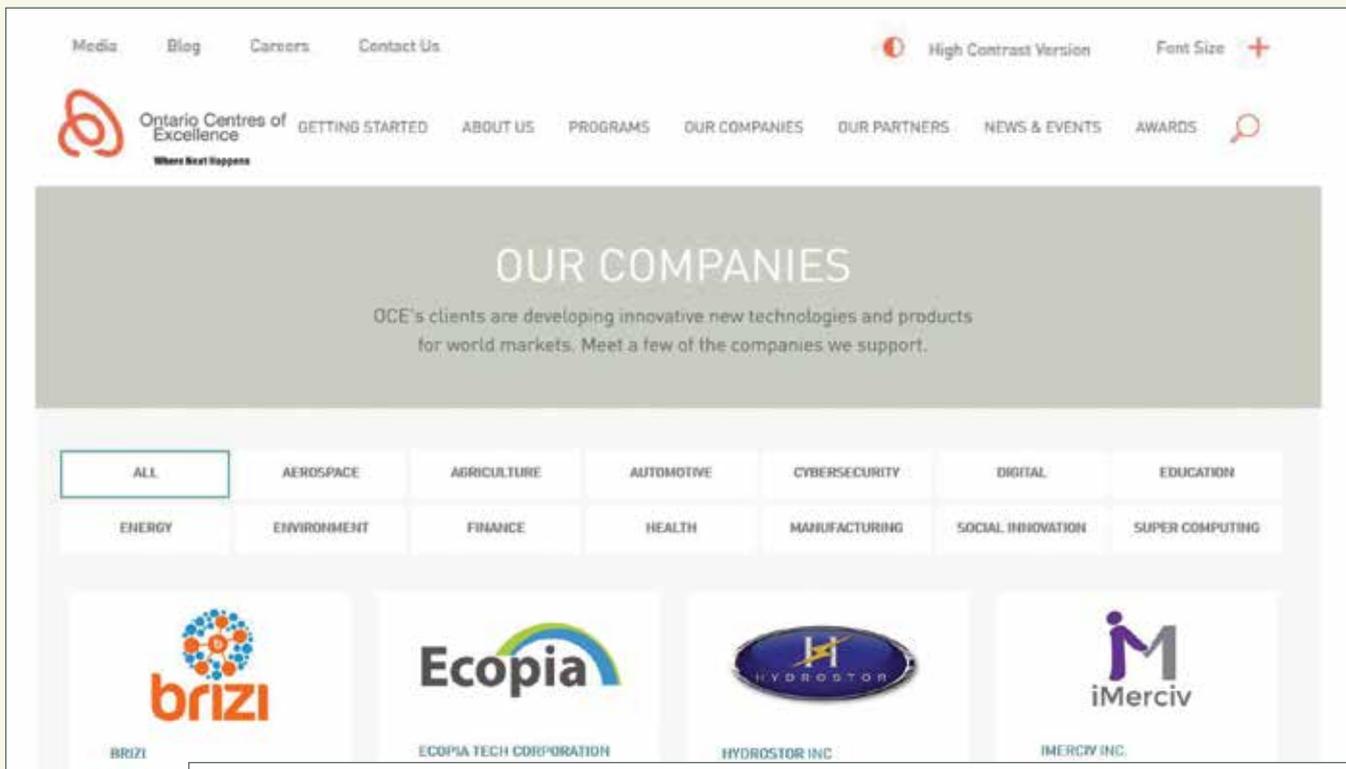
**Innovation events hosted and supported** – Information sessions, partnering forums and industry events

## Learn about our projects and our companies

OCE is committed to making our funding processes and company information as transparent and accessible to the public as possible.

In 2015-16, we launched a new searchable database on our website, which provides stakeholders with robust information on all our OCE-funded projects going back three years. Our searchable database produces results that are mapped and filtered based on the users' needs, with sort options that include sectors, programs and academic affiliations.

We also launched the *Our Companies* page and have now profiled over 250 OCE-supported companies on our website.





## COLLABORATIVE R&D

- TalentEdge
- Collaboration Voucher Program
- Alberta-Ontario Innovation Program
- Connected Vehicle/ Automated Vehicle
- Explore



## SEED FINANCING/ START-UPS

- SmartStart Seed Fund
- Market Readiness
- Medical Sciences Proof-of-Principal (MSc PoP)



## ENTREPRENEURSHIP

- Campus Linked Accelerators (CLA)
- On-Campus Entrepreneurship Activities (OCEA)
- Ontario Social Impact Voucher (OSIC) Program
- Young Entrepreneurs, Make Your Pitch



OCE works with innovators and entrepreneurs to help them develop and hone business ideas, secure financing and develop promising technology. These business ideas are advanced to the point of industry or institution adoption and scale up, where the game-changing economic and social benefits can be realized.

# OCE OFFERINGS

OCE offers a comprehensive suite of programs designed to commercialize innovations that help create jobs, drive prosperity and equip the next generation of entrepreneurs to continue to build a globally competitive knowledge-based economy for Ontario.

## DEMONSTRATION/ ADOPTION

- Health Technologies Fund (HTF)
- REACH
- *AdvancingHealth*
- *AdvancingEducation*

## GOING GLOBAL

- China Angels Mentorship Program (CAMP)
- GlobalStart Voucher Program

## GAME-CHANGERS

- TargetGHG
- IBM Innovation Incubator Project
- SOSCIP Research Consortium

## Spearheading Ontario's efforts to reduce greenhouse gas emissions

OCE's decades of experience in energy and environment are now being applied to an important new role: managing the Ontario government's TargetGHG program, a \$74 million GHG emissions reduction initiative. The project encourages large industrial plants to adopt leading-edge technology to reduce emissions and supports Ontario's entrepreneurs and SMEs in developing new solutions that will help industry meet aggressive future GHG emission reduction targets.

The program's three streams are Industrial Demonstration; Collaborative R&D and Technology Development; and an OCE-Carbon XPrize partnership competition and Solutions 2030 Challenge.

Helping Ontario meet its 2020-2030 targets for GHG emission reduction and

providing significant economic benefits to Ontario, the program is supported by Ontario's Ministry of Research, Innovation and Science and the Ministry of Environment and Climate Change and is offered in partnership with Natural Sciences and Engineering Research Council of Canada (NSERC), Sustainable Development Technology Canada (SDTC) and Alberta's Climate Change and Emissions Management Corporation (CCEMC).



## Ontario businesses can now join cognitive computing movement to scale-up and find new markets

Ontario's small- and medium-sized enterprises (SMEs) can now gain access to the advanced computing and global supply chains that will help them scale-up their businesses.

The \$54.5 million IBM Innovation Incubator Project gives SMEs unprecedented, preferred access to IBM's technical resources and expertise while supporting innovative demonstration projects, incubation activities, internships, and fellowships to build skills and drive adoption of disruptive technologies.

Qualifying companies can access IBM's technical, design and business resources and reduce costs of introducing new technologies to the global market.

Levelling the playing field for

SMEs, the program is offered in partnership with the Ontario government, IBM and the SOSCIP Research Consortium. SMEs will be

able to use cognitive and cloud computing through IBM technology platforms including BlueMix and Watson.

### Smart Computing R&D Challenge

Ten projects with a total project value of \$4.7 million have now been approved under two rounds of OCE's Smart Computing R&D Challenge. Offered in partnership with SOSCIP and NSERC, the \$7.5 million program provides academic and industry research collaborators with access to advanced computing tools and infrastructure in areas such as advanced manufacturing, cybersecurity, digital media and mining.



### OneEleven

Launched by OCE, OMERS Ventures and Ryerson University in the fall of 2013 as Canada's first community for data driven entrepreneurs, OneEleven continues to nurture entrepreneurs building big data companies, accelerate the commercialization of cutting-edge research and contribute to Ontario's economic prosperity. Since its founding, OneEleven's portfolio start-ups have raised \$91.9 million in follow-on financing and created 176 jobs. It is currently home to 13 portfolio start-ups and has 13 alumni companies.



# APPLYING INNOVATIVE SOLUTIONS TO PRESSING GLOBAL CHALLENGES

## Helping Ontario's transportation and automotive industry grow and succeed



OCE's Connected and Automated Vehicles program supports businesses and academic institutions in commercializing a wide range of creative new technologies to improve safety of drivers and passengers, reduce traffic congestion, improve fuel efficiency and environmental safety and allow for more efficient deployment of trucks and other commercial vehicles.

This is a partnership between OCE, Ontario's Ministry of Transportation

and the Ministry of Economic Development and Growth.

OCE has also supported projects related to electric cars, alternative propulsion system technology, and lightweight materials for better vehicle performance and fuel efficiency.

OCE is also partnering with Ontario and the Automotive Parts Manufacturers Association to support innovation by small- and medium-sized auto suppliers to increase their global competitiveness.

## Taking on cybersecurity technology challenges in Ontario and Quebec

A cross provincial, \$3-million Cybersecurity R&D Challenge is supporting joint industry-academic partnerships leading to innovative new technologies, products and services to protect the privacy of government systems, companies such as financial institutions and citizens. More than 100 researchers and industry representatives attended an OCE-hosted Partnering Forum in Ottawa to explore collaborations that can lead to the commercialization of new technologies.

The R&D Challenge is offered by OCE in partnership with NSERC and PROMPT, a non-profit Quebec-based

organization that helps create R&D partnerships between industry and public research institutions in the ICT market.

Funded by OCE's Voucher for Industry Association R&D Challenge Program, this initiative is part of OCE's ongoing work in the area of cybersecurity, which includes a partnership with Canada's Smart CyberSecurity Network (SERENE-RISC).



## Developing social entrepreneurs and enterprises in Ontario

Social entrepreneurs embrace business methods to create solutions to social, cultural and environmental problems while creating jobs and attracting investment. Building on the success of the Ontario Social Impact Voucher Pilot program (OSIV), OCE has now introduced the two-year OSIV program and will deploy up to 200 vouchers valued at \$3,000 each to Ontario-based entrepreneurs and social enterprises through nine organizations: Schlegel Centre for Entrepreneurship and Social Innovation; 80-20 Growth Corporation; PARO Centre for Women's Enterprise; Centre for Social Innovation; Impact Hub Ottawa; MaRS Centre for Impact Investing (MCII); The Conseil de la coopération de l'Ontario; Centre for Innovative Social Enterprise Development; and Community Innovation Lab. Funding for OSIV is provided by Ontario's Ministry of Economic Development and Growth.



# Innovation Procurement

## Championing government's role as first customer of innovation

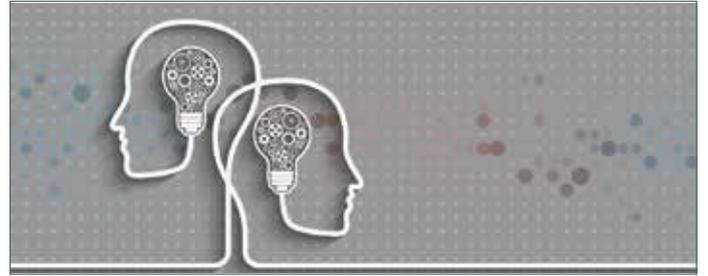
The massive purchasing power of governments represents huge potential to drive fundamental improvements in areas such as health care, education and transportation while also supporting the growth of an economy fueled by innovation. Understanding this, OCE is taking a leadership role in the innovation system in developing programs to demonstrate new technologies as a means of building a strong case for adoption and system-wide scaling.

### AdvancingHealth



In 2014, OCE launched its *AdvancingHealth* program in partnership with the Ministry of Government and Consumer Services, bringing together health-care and industry partners to develop and demonstrate new technologies within a health-care setting. Under Round 1 of the program, OCE invested \$5 million in five large-scale demonstration projects focusing on ICT and mobile applications. Now an additional \$3 million has been invested in five public-private partnerships focused on technology used to remotely monitor and care for Ontario patients.

### AdvancingEducation



Under a similar program model, OCE subsequently introduced its *AdvancingEducation* program. Launched in the fall of 2015, the program is bringing together Ontario's K-12 and postsecondary educational institutions with companies to test early-market engagement and demonstrate innovative products and technologies designed to increase student engagement and improve learning outcomes and accessibility. Successful applicants will be announced in the fall of 2016.

### Health Technologies Fund



OCE recently announced a \$20 million program to help develop leading, made-in-Ontario health technologies by accelerating prototyping, evaluation, adoption and dissemination in the Ontario health-care sector. Delivered by OCE on behalf of the Ministry of Health and Long-Term Care's Office of the Chief Health Innovation Strategist (OCHIS), the Health Technologies Fund is making "better care closer to home" its first priority. It will support Health Innovation teams from across Ontario to work on projects related to home and community care through virtual, digital and mobile health-care technologies.

### REACH



Now also being offered by OCE is REACH, a matching grant funding program designed to help Ontario health-care providers apply new methods to procure and more rapidly adopt innovative medical technologies that can address high priority health system needs.

The three-and-a-half-year program supported by the Government of Ontario provides up to 50 per cent of total project costs to the lead applicant of competitively-selected projects, where the lead applicant is a public health-care service provider organization.

## Supporting Collaborative R&D in Ontario Aerospace

Close to 160 researchers, entrepreneurs and representatives of the aerospace industry attended a partnering forum in late 2015 to identify collaboration opportunities. Hosted by OCE, the event marked the launch of OCE's second Aerospace R&D Challenge. The \$2.5-million initiative is supporting areas of technology that are strategically important to Ontario's aerospace sector and with strong economic benefits, including jobs and revenues.

Our partners in the program include the Ontario Aerospace Council (OAC), the Consortium for Aerospace Research and Innovation in Canada (CARIC) and the Natural Sciences and Engineering Research Council (NSERC).

### Funding helps satellite company soar

A greenhouse gas monitoring satellite developed by Toronto-based Space Flight Laboratory (SFL) with support from OCE was launched this summer. The GHGSat-D satellite is the first of a group of satellites that will do targeted GHG monitoring of specific facilities. Funds awarded under OCE's first Aerospace R&D Challenge helped SFL develop a high performance ground target tracking system for this project, making this new technology for miniature satellites more attractive to global customers. SFL began developing key microsatellite technology 18 years ago with OCE funding. A miniature reaction wheel jointly developed by SFL and Toronto-based Sinclair Interplanetary has led to successful satellite manufacturing contracts from global customers. With that wheel technology, SFL was able to start a business originating at the University of Toronto that has grown into a company of 50 staff with 15 satellites in orbit. Ten more are under construction or awaiting launch.

## Providing a gateway to the innovation marketplace



Under the federal government's Defence Procurement Strategy, OCE is uniquely positioned to help defence contractors gain maximum multiplied credits under the Industrial and Technological Benefits (ITB) policy's investment framework program.

Focusing our team on Canada's Key Industrial Capabilities (KICs) and leveraging our strong network in the innovation sector and our long-term relationships with industry, we deliver R&D collaboration and investment opportunities that are eligible for ITB Offset credits while generating optimal economic value for the contractor and Ontario. Defence contractors work with OCE's on-the-ground team to leverage Ontario's capabilities.

## Commercializing game-changing health research



A non-invasive test to predict aggressive tumour behaviour in prostate cancer; a new way to test sleep apnea in children; and treatment of heart arrhythmia. These are just three of twenty exciting Ontario-based medical research projects that are a step closer to market entry thanks to funding from OCE's Medical Sciences Proof-of-Principle (MSc PoP) program. MSc PoP commercializes promising Intellectual Property (IP) in life sciences and medical technology developed at Ontario's academic research institutions. Economic benefits flow to the province when Ontario-based companies build businesses based on IP or the IP is licensed to an existing company. OCE, which partners with MaRS Innovation in delivering MSc PoP, announced a third round of funding this fall.



## PROVINCIAL PARTNERSHIPS

### Alberta-Ontario collaboration

The Alberta-Ontario Innovation Program brings industry and academia together to develop research projects with a strong economic focus. The cross-provincial collaboration addresses challenges in both Ontario and Alberta that can be tackled through joint R&D.

The provinces of Ontario and Alberta are providing up to \$4 million to be matched with \$4 million from industry partners in both provinces. Additional matching funds of up to \$4 million are available through NSERC. Funded in Ontario by the Ministry of Research, Innovation and Science, the program has been extended with an additional \$2 million investment.

#### Making it smarter and simpler    Uncovering secrets of steel



Under global competitive pressure, manufacturers of heating, ventilation and air-conditioning (HVAC) equipment and controls want to change how systems operate to optimize efficiency and lower costs. This is driving the industry toward more intelligent technologies. **Johnson Controls** creates quality products and services for buildings, focusing on operational and energy efficiency. With OCE funding, the company is developing new real-time optimization (RTO) technologies for HVAC equipment and processes. By removing the need for detailed information about the systems being optimized, these technologies lower barriers to adoption. Developed with Praxair Inc., the new technologies will benefit Canadian companies and buildings.



Researchers at **NOVA Chemicals Corporation** (Calgary and Sarnia) and Western University are looking at how steel pipes crack and whether the speed and nature of cracking is influenced by absorption of hydrogen. They are finding that a change in carbon content or a different heat treatment could limit cracking and the strength of steel could be improved by reducing the number of low-angle boundaries, either through heat treatment or the addition of alloying elements. Sophisticated spectrometry experiments will shed further light on how to address causes and pathways of cracks.

Supported by OCE and NSERC, this advanced materials development for safer pipelines will greatly benefit the oil, gas and plastics industries.

#### QUEBEC-ONTARIO

### Cutting-edge drug discovery

Partners since 2012, OCE and Quebec's CQDM recently announced funding for six new game-changing research projects to accelerate drug discovery under the Quebec-Ontario Life Sciences Corridor, resulting in a total investment of \$1.8 million. The projects are part of the unique Explore program, which funds Quebec and Ontario-based researchers whose research projects provide early concept validation of cutting-edge technologies that address the needs of biopharmaceutical research. The projects include a focus on innovative approaches to treating cancer and heart diseases as well as new vaccine therapies.



"I am grateful to both OCE and CQDM for their sustained efforts to foster collaboration between Ontario and Quebec. Both provinces have ever-expanding life sciences sectors and a lot to offer each other, including knowledge and expertise that can shape an enhanced tomorrow. By working together, we remain focused on the future, and committed to driving discoveries that change people's lives."

— **Reza Moridi**

Minister of Research,  
Innovation and Science

# OUR NATIONAL AND INTERNATIONAL PARTNERSHIPS

## INTERNATIONAL PARTNERSHIPS

### Ontario-based companies make connections in China

The China Angels Mentorship Program (CAMP), a joint initiative of OCE and the China Canada Angels Alliance (CCAA) is a virtual incubation program that helps early-stage companies enter the Chinese market. OCE and CCAA this year strengthened ties between Ontario-based businesses and the Chinese investment community, forming new partnerships with Zhongguancun Haidian Science Park (Z-Park), a high-tech innovation centre in Beijing and River Capital, an investment fund-based in China.

Ten Ontario startups were selected last fall as the inaugural CAMP participants. They travelled to

China for two weeks in November and spent the year building relationships in Ontario and China. Those first 10 companies have already generated close to \$6 million in follow-on investments including \$1.6 million from CCAA. A new cohort of ten companies was announced in September, 2016.

“

Ontario has some exciting technologies to share with the world and we are excited to be able to bring our expertise to this partnership to help them develop and grow.”

— **Huang Lei**  
Deputy Chief of  
International Cooperation  
of Z-Park.

#### A save-the-world page turner



Once upon a time, two preeminent artists developed Storyvalues, an online educational resource that takes folktales and myths from around the world as a foundation for inclusive arts education. Cheryl Thornton and Matthew Giffin wanted to “save the world through storytelling.”

Through cross-cultural narratives, the company harnesses the power of language, empathy, creativity, and cultural fluency. Storyvalues was endorsed by Curriculum Services Canada after just one year and licensed by the Toronto District School Board. More success came when they encountered Jet Zhang who helped Cheryl and Matthew rebrand Storyvalues as the more market-ready **KapowKidz** and were introduced to CAMP, which connected them with the Chinese market and began the next chapter of their story. A year later KapowKidz has investors offering them mentorship and financial backing. The company is slated to provide educational content for over 20,000 schools in China. The Canadian component of companies like KapowKidz is pivotal as part of the company's brand; the Chinese component helps these start-ups scale to rival the best “happily ever after” stories.

#### Veering to drones



**Reforges'** name is inspired by a singular desire to make things better, whether that means perfecting a doorbell, a table or a television. What Murray Wu and Ella Bao, co-founders of the company, initially set out to do was “reforge” the modern electrical outlet. They developed the V.O., a safe, convenient and elegant device that connects and powers electronic devices by magnetically aligning and securing the power adapter to the outlet at any angle.

CAMP then “reforged” Reforges itself. After consulting with CCAA's Tony Wang, the founders realized that the V.O. technology had other potential applications. Together with CAMP and their newly hired CTO Isaac DeSouza, Reforges pivoted and turned their magnetic technology into drone-charging ports. Previously, drones were limited by their power supply. Once out of power, they needed to recharge at a central location.

With Reforges' technology, a drone can jump from port to port, covering a huge area of land that previously would have required human intervention or backtracking. Since joining CAMP, the company has iterated eight versions of their prototype and secured more than \$5,000,000 in LOIs for their next project.



**ROI** RETURN ON INNOVATION

- Technology has already generated over \$200,000 USD in sales
- Two students that worked on the project have been hired by Landau Gage
- OCE Investment: \$158,495

## Landau Gage

Auto manufacturers must carefully inspect every transmission component, measuring each part down to the micrometre to ensure rigorous safety and quality standards are met. Current measurement machines use a time-consuming process involving probes to measure the surface of a part. Windsor-based Landau Gage, a leading supplier of world-class measurement systems, wanted to develop an industry-leading alternative.

The company paired its mechanical engineering expertise with a leading-edge electrical and programming research team at University of Windsor to develop a measurement solution that drastically reduces the time it takes to inspect auto parts. The collaboration produced a patent-pending laser-based coordinate measuring machine that uses advanced algorithms to analyze transmission components and filter unwanted data. The system reduces inspection time by 93 per cent - from 15 minutes per part to less than two minutes. Less time spent per part translates to big cost savings for automotive manufacturers, as it allows for quicker adjustments and higher productivity.

OCE first supported the Landau Gage-University of Windsor collaboration through the Voucher for Innovation and Productivity (VIP) Program in 2013. The project focused on the development and implementation of the system's algorithms. An ongoing VIP II project is refining the next-generation prototype in preparation for commercialization. Two TalentEdge funded interns are engaged on the project, focusing on improving the algorithms and user interface design.

The fully functional prototype is scheduled for completion in the fall of 2016. A major player in the auto-parts industry has already purchased two systems and several other leading companies are on board to demonstrate the new version upon its release.



Ken Bishop,  
VP Operations,  
Landau Gage



Dr. Rashid  
Rashidzadeh,  
University of  
Windsor



Raed Kadri,  
Business  
Development  
Manager, OCE



# ROI

RETURN ON INNOVATION

- Raised \$10 million in Series A financing
- Currently has 16 full time employees
- OCE Investment: \$134,899

## Analytics 4 Life

Heart disease is the second leading cause of death in Canada and an estimated 1.3 million Canadians are currently living with it. Early detection is crucial to decreasing death rates, but current diagnostic techniques can be invasive and costly.

Analytics 4 Life (A4L) has developed an analytics platform with the potential to disrupt the health-care space by enabling non-invasive, affordable screening and diagnosis of various diseases. The platform uses proprietary machine-learned algorithms to reveal previously hidden information about a patient's health status from within their physiological signals. The first application of the platform will be cardiac conditions. The technology could replace expensive, cumbersome methodologies such as nuclear stress tests and x-ray based computed tomography. Its ease of use will enable diagnostic testing for cardiac diseases in a broader range of settings, including at home.

OCE first supported A4L in 2014 through a Medical Sciences Proof-of-Principle (MSc PoP) project with Queen's University that explored predictive measures of cardiotoxicity. A TalentEdge Internship project helped the company develop a Quality Management System to ensure it meets compliance for Canadian and European markets.

In 2016, A4L became a primary tenant in IBM's Innovation Space in Toronto, part of a partnership between OCE and IBM that offers an integrated suite of globally disruptive, advanced computing technology infrastructure and programming to Ontario SMEs. With support from a SOSICIP-OCE TalentEdge Fellowship, the start-up is further developing the machine learning platform that forms the basis of its cardiac-specific system.

A4L recently launched a two-stage, U.S.-based clinical study that is enrolling up to 2,500 subjects at as many as 25 sites. The first stage is designed to gain insight for its algorithms. The company plans on commercializing its system in the U.S. followed by Europe and Canada.

Ian Shadforth,  
CTO,  
Analytics 4 Life



Shyam Ramchandani,  
Director of  
Marketing  
and Business  
Development,  
Analytics 4 Life



Samira Afrand,  
Business  
Development  
Manager, OCE





ROI RETURN ON INNOVATION

- CleanSlate UV currently has nine full-time employees and anticipates growing to 19 next year

- The team solidified a partnership with Mississauga-based company C2P to keep manufacturing of the CleanSlate UV Sanitizer in Canada
- OCE Investment: \$120,704

## CleanSlate UV

Healthcare-associated infections (HAIs) affect over 200,000 patients in Canada each year, and more than 8,000 of these patients die as a result. Mobile devices – like smartphones, tablets and non-critical medical devices, are a major contamination risk in hospitals. One in four are contaminated with pathogenic bacteria, meaning they carry bacteria and undermine hand hygiene. Disinfectant wipes, the current best practice, harm devices and are prone to human error.

CleanSlate UV has developed an innovative solution that uses UV-C light to rapidly sanitize cell phones, tablets and other devices. The CleanSlate Sanitizer kills at least 99.99% of HAIs, such as MRSA, VRE and *C. difficile* in 30 seconds. It causes no damage to electronic screens and requires no training to use. The system also tracks which devices are cleaned to ensure compliance with sanitization protocols.

The company was formed in 2014 when the co-founders attended the Queen’s Innovation Connector Summer Initiative. In 2015, the team competed against 11,000 other applicants to win the top prize of \$500,000 from 43North, an international pitch competition. OCE supported CleanSlate UV in 2016 through the Market Readiness Program, which accelerated the development of the start-up’s second-generation product. With OCE’s help, the team was able to double the initial number of devices produced, giving them invaluable feedback from new pilot projects and market traction for the official product launch.

The CleanSlate UV Sanitizer launched in September 2016 and is currently used in hospitals in Toronto, Buffalo and New York City. Additionally, the product has been quickly adopted into food processing facilities and corporate campuses where there are concerns about bacterial contamination, with new deployments underway in Houston and New Zealand.



Taylor Mann,  
CEO,  
CleanSlate UV



Samira Afrand,  
Business  
Development  
Manager, OCE



**ROI**  
RETURN ON INNOVATION

- Company closed \$235,000 in angel investment since receiving funds from OCE’s Market Readiness Program
- Currently employs five full-time team members and projects doubling its staff in 2017
- OCE investment: \$164,970



Ami Shah,  
CEO,  
Peekapak



Rebecca Tran,  
Business  
Development  
Manager, OCE

# Peekapak

Early education curricula emphasize the cognitive skill development of subjects like language arts and math – to help students succeed in the 21st century world. But this fails to include an equally crucial aspect to a child’s development — character education.

Peekapak co-founders Ami Shah and Angie Chan wanted to address this gap in a fun and engaging way. Working with early education experts, teachers and parents, they created Peekapak, a learning platform that brings character development and social-emotional learning to the classroom and home. Through the characters of Peekaville, Peekapak teaches students from pre-Kindergarten to grade three the core character concepts of perseverance, self-regulation, respect, teamwork, gratitude, empathy, kindness, resilience, courage, and honesty. Each concept is covered in a monthly unit that consists of an original storybook and lesson plans filled with activities for school and at home.

OCE first supported Peekapak in 2015 through the Market Readiness Customer Creation (MRCC) Program, which helped the start-up pilot its platform in 20 schools across Canada and the U.S. and launch their freemium version in December. In 2016, Peekapak partnered with George Brown College’s School of Early Childhood on an OCE VIP I project that helped the company understand how children learn at home and design at-home learning activities for the program. An ongoing VIP project with George Brown’s School of Design will help Peekapak develop game-based technology to capture insights on how students are progressing with the platform in real time.

Peekapak currently has 20,000 users in 87 countries, including many in the Toronto, Peel and York school boards. The team is based out of Ryerson’s DMZ and is currently focusing on expanding to new districts across North America and evolving the platform.



**ROI** RETURN ON INNOVATION

- Noblegen has raised \$5.5 million in follow-on investment
- The company currently has 17 full-time employees and projects adding 10 jobs in 2017
- OCE Investment: \$140,729

# Noblegen

In a world facing the increasing impact of climate change, there is a huge demand for sustainable and scalable solutions. Young entrepreneur and renowned scientist Adam Noble founded Noblegen Inc. (formerly Noble Purification) to address these great challenges and help redefine the relationship between people and the planet.

Noblegen is an advanced bioproducts manufacturer dedicated to developing competitively priced, naturally-derived biomaterials and biochemicals for market applications that range from food and beverage ingredients to water purification and biopharmaceuticals. The company uses a proprietary approach to grow naturally occurring microorganisms for their valuable compounds. The results are sustainable, efficient and cost-effective bioproducts that offer innovative alternatives to existing, often synthetic, products.

Noblegen's patented "directed expression" technique forms the core of the company's multi-product platform. The technology originated in research Noble undertook at Trent University, which won him several national and international awards. In 2013, he co-founded Noblegen with Dr. Andressa Lacerda to apply the research to solving the industrial challenge of wastewater pollution.

OCE supported Noblegen in the company's early stages, helping the company take its water purification technology from a science fair project to a full-scale demonstration. In 2014, a Voucher for Innovation and Productivity (VIP) project validated the feasibility of the system. Market Readiness support allowed Noblegen to demonstrate its technology in a full-scale pilot project.

Following Market Readiness support, Noblegen attracted significant follow-on investment and expanded the applications of its technology from wastewater to health, nutrition and biochemicals. The company is building a \$20-million production facility in Peterborough scheduled to open in 2017.



Adam Noble,  
*CEO,  
Noblegen*



Dr. Andressa  
Lacerda,  
*Co-founder,  
Noblegen*



Dr. Neil Emery,  
*Trent  
University*



Balinder Rai,  
*Business  
Development  
Manager, OCE*

# ROI

RETURN ON INNOVATION

- Thoth expects to hire 5 more staff within two years
- The technology has the potential to make Canada a world leader in the multi-billion dollar global VLBI and SKA markets
- OCE Investment: \$254,998



## Thoth Technology

A partnership between Pembroke-based Thoth Technology and a professor at University of Toronto's Canadian Institute for Theoretical Astrophysics is helping Canada reclaim its role as a world leader in very-long-baseline interferometry (VLBI).

A technology used in radio astronomy, VLBI allows a signal from an astronomical radio source to be collected at multiple radio telescopes on Earth, combining their angular resolution to create an Earth-sized telescope for making ground-breaking observations about astronomical objects. Without VLBI, a breakthrough viewed by many as momentous as the invention of the Internet, there could be no Global Navigation Satellite Systems (GNSS) such as Global Positioning System (GPS) technology.

U of T Professor Ue-Li Pen contacted Caroline Roberts, CEO of Thoth, because he wanted to use the company's 46-metre radio antenna at the Algonquin Radio Observatory (ARO) for pulsar research. OCE's Technical Problem Solving program gave Thoth the first opportunity to work with Professor Pen and his group. Under OCE's Smart Computing R&D Challenge, Thoth was awarded support for the project to access SOSCIP computing resources on its Agile computing and Blue Gene/Q platforms. And through OCE's TalentEdge Program, Thoth was able to apply students' cutting-edge knowledge to the problem of VLBI signal processing.

Space elevators — a type of space transportation system — could also be a viable technology within 10 years thanks to Thoth. The ThothX Tower uses readily available materials inflated with helium or hydrogen to ascend to 20 kilometres.

The patented technology has a number of innovative applications related to the world's fastest Internet, renewable wind-energy generation, space planes, international travel and high-altitude tourism.

Caroline Roberts,  
CEO,  
Thoth



Ue-Li Pen,  
University of  
Toronto



Richard Worsfold,  
Business  
Development  
Manager, OCE





**ROI** RETURN ON INNOVATION

- Employs six team members, including one sourced through TalentEdge
- Team projects doubling in the next year
- OCE Investment: \$150,000

## Sober Steering

A drunk driver gets behind the wheel of a vehicle, loses control and hurts – or kills – himself and possibly others. It’s a tragic story that could have been prevented with some new OCE-supported technology from Waterloo-based Sober Steering.

Founded in 2009, and led by Catherine Carroll, CEO, and her father John Carroll, CTO, the company moved from Florida to Ontario to gain access to Ontario expertise and supportive government programs. It also gained the use of specialized equipment by partnering with the University of Waterloo’s engineering department.

Sober Steering has developed what is believed to be the world’s only touch-based alcohol interlock. Upon ignition, the driver places a hand on the biosensor pad in the wheel. Biosensors analyze the gases exuded from the skin. If any alcohol detected exceeds a pre-set limit, the vehicle is immobilized and an instant message is sent to dispatch or to parents. Random retests ensure that the driver maintains sobriety while driving. Sober Steering’s Zero Tolerance System is available for fleet vehicles and select other installations.

In 2011 the company started working with OCE on the sensor development via Waterloo’s Accelerator Centre. OCE provided support through the Connected Vehicle/Automated Vehicle (CVAV) and TalentEdge programs.

The platform has been used in Waterloo-area school buses for 18 months and will expand to other industries to monitor drivers of hazardous vehicles and trucks. With OCE’s support, it also plans to commercialize a wearable version of the product for consumers, which could benefit parents monitoring teens driving.

Sober Steering has received significant follow-on investment from angel investors in the U.S. and plans to expand to the U.S. market with school buses in select states.



Catherine Carroll, CEO, Sober Steering



John Carroll, CTO, Sober Steering



Ken Schultz, Business Development Manager, OCE



**ROI**  
RETURN ON INNOVATION

- When fully developed, technology will generate an estimated \$5 million a year
- Rock Tech estimates hiring 10+ full-time employees in the next few years as a result of the technology
- OCE Investment: \$100,000



## Rock-Tech

Current methods for rock breaking pose challenges for mining operations. Rocks are passed through a screen to be crushed, but rocks that are too big must be crushed separately by an operator, which reduces productivity and increases expenses. Automating the rock-breaking process would increase efficiency, but existing technology can't program machines to respond to the variables in rock sizes.

Sudbury-based Rock-Tech, a manufacturer of equipment for underground mining, is developing a semi-autonomous system that will give it a competitive advantage and help realize the company's goal of commercializing a first-of-its-kind, fully autonomous system. The system increases productivity by allowing one worker to operate multiple rock breakers at once and minimizes losses due to product damage. It is also safer for operators.

Rock-Tech partnered with Cambrian College to develop the main component of its semi-autonomous rock breaking system, a customizable grizzly screen that can better handle rocks of various sizes. The project was funded by OCE's Voucher for Industry Association (VIA) program, offered in partnership with the Ultra-Deep Mining Network (UDMN), managed through the Centre for Excellence in Mining Innovation (CEMI). Two students, Emma Tugwood and Justin Midena, were engaged to develop the grizzly screen, taking the lead on all aspects from design to welding. Upon completing the project, the students had gained enough welding experience to become Level 2 apprentices, making them significantly more employable.

The grizzly screen now forms the centrepiece of Rock-Tech's recently completed product testing and showcase centre. The company's semi-autonomous rock breaking system, which has already garnered interest from large mining companies in Canada and abroad, is expected to be launched in the fall of 2017. After the commercialization of its current system, Rock-Tech will continue R&D of a fully autonomous rock breaker.

Ricky Lemieux,  
*President,  
Rock-Tech*



Prof. Robbie  
Duncan,  
*Cambrian College*



Samira Afrand,  
*Business  
Development  
Manager, OCE*





## Launching companies and careers

OCE offers a wide range of programs to help youth with entrepreneurial goals to gain real-world industry experience and entrepreneurial skills and to build their own companies to the point that they are investment- and customer-ready. This includes funding for accelerators and infrastructure that provides training, mentorship and access to capital for young entrepreneurs at Ontario's colleges and universities as well as the GlobalStart Voucher Program for youth-led start-ups that are targeting emerging markets. Based on the success of these programs, the Ontario government this year provided another \$13.8 million in program funding to be invested over the next two years.

## SmartStart

Planting the seeds for a flourishing innovation economy in Ontario

### A textbook case of social innovation



In 2013, Chris Janssen travelled to a Rwandan university and noticed a lack of educational resources available to students. Together with his former Western University business school classmate, Tom Hartford, he founded **Textbooks for Change**, a social enterprise and B Corp that collects textbooks from North American campuses and redistributes them to East Africa.

Out of the thousands of textbooks collected annually, 50 per cent are donated to partner campus libraries in East Africa, 20 per cent are sold online to students at affordable prices, and 30 per cent are recycled. Proceeds help support student-led social initiatives.

OCE's SmartStart funding helped the team launch their

first collection drive in April 2014. In 2015, they began working with Toronto-based SAMETRICA to measure and assess impact, supported by the Ontario Social Impact Voucher (OSIV) Program.

Textbooks for Change currently operates on 26 Ontario campuses and has donated over 100,000 textbooks to African universities. The team is focusing on expanding across Canada and the US.

#### ROI:

- Employs 15 full-time and five part-time employees
- Has provided over \$115,000 for Canadian charity and student-led initiatives

# BUILDING THE NEXT GENERATION OF ENTREPRENEURS

The \$18 million SmartStart Seed Fund is helping some of Ontario's most promising young entrepreneurs obtain seed funding and support in scaling their companies to the point where they can attract customers and early investors.

This much-needed financing and support comes from the Ontario Ministry of Research, Innovation and Science and FedDev Ontario through a single program, a whole-of-government approach that creates a more streamlined

application system and reduces duplication.

In 2015-16, the program supported **97 start-ups** and led to **465 new or retained jobs** and **\$3.8 million in incremental sales revenues**.

## Eyes on the future

Waterloo-based **SkyWatch** saw the future and took the support offered from OCE's SmartStart Seed Fund to turn its satellite data application into a global commercial potential. OCE allowed SkyWatch to take technology originally built for astrophysics and turn it into something that had huge commercial opportunity. The data is used by people in the mining industry to inspect areas of interest; by oil companies to monitor pipelines; and by farmers to monitor their crops. Market intelligence companies also use the data to count cars in parking lots and the number of construction cranes that are in use across the entire country. OCE worked with the SkyWatch team on pivoting the product for Earth-observing data, for which there is a huge market.

### ROI:

- The company has offices in Waterloo and New York City
- Plans to have 20 staff by the end of 2017



## Ample samples

Samples are a great way for brands to interest consumers in buying their products, but determining the ROI is difficult when samples are handed out randomly. Marie Chevrier recognized this inefficiency while working in marketing and founded Sampler in 2013 to create a technological solution.

**Sampler** is an end-to-end digital product sampling platform that helps brands get their product samples into the right hands quickly, effectively and with clear ROI. Brands like Kimberly-Clark, L'Oréal and Mondelez are using Sampler's technology to move their product sampling online and effectively distribute samples to their target audience, all while seeing direct ROI on their campaign.

OCE's SmartStart support helped Sampler hire a CTO-in-residence and meet key milestones in the company's first two years. Sampler is used by over 200 brands in 20 countries. The start-up expects to distribute five million samples through its program in the next year.



### ROI:

- Sampler has 17 full-time employees, with operations in Toronto, New York and the U.K.
- Has raised over \$1.5 million in follow-on investment to date

## CLA and OCEA

### Campus entrepreneurship is thriving

Launched in 2014, the Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) programs continue to ignite entrepreneurial spirit at Ontario's university and college campuses.

**Over the past two years**, the program has created or assisted **2,214 start ups** and created **3,699 jobs**. These start-ups have generated **\$64 million in sales** and **raised \$128 million in investments**.

The number of students participating in pitch competitions, attending events and seeking advice and mentorship continues to climb dramatically.

Number of competitions and contests in **2015/16 - 243** (38 per cent increase over last year)



Participants at events and seminars in **2015/16 - 120,072** (26 per cent increase over last year)

Hours of mentorship provided to students in **2015/16 - 64,651** (47 per cent increase over last year)

This \$38 million, four-year program is a globally unprecedented investment in young entrepreneurs providing outreach to local communities, extracurricular education, experiential training and accelerator services to help build companies.

## CLA/OCEA successes:

### Robot meets 3D



A virtual reality simulation platform connected to big data, **Coqui 3D** combines a robot that mimics the real-world touch-and-feel of performing an operation with a 3D virtual operating room and patient. This can be used in telehealth training for surgeons in remote areas, such as military conflict areas, Aboriginal communities and developing countries. Working with the FastStart OCEA and Brilliant incubator at University of Ontario Institute of Technology in Oshawa, the company met with investors, secured seed funding and obtained sites for beta testing. Winning start-up competitions and grants leading to an angel investment of more than \$125,000, the company now plans to scale the platform from kidney stone and urology operations to gastrointestinal procedures.

### Retirement home search



Toronto-based **Pearl's Choice**, Canada's most comprehensive online marketplace for retirement home searching, connects seniors and their families with retirement living communities, providing free and unbiased information and resources. Last year, the company raised more than \$500,000 and was valued at nearly \$4 million. The founding team was nominated for Toronto Board of Trade Entrepreneur of the Year and highlighted in national media. Seneca College's HELIX OCEA program offered invaluable mentoring, networking with tech industry leaders and government officials and the ability to conduct focus groups. This led the company to its multimillion-dollar valuation in only a year. It now plans to grow the platform and expand its workforce.

### Valuable content alert



Toronto's **TrendMD** is the world's leading scholarly content discovery and distribution platform, generating more than 450 million recommended articles to 50 million unique readers each month. With support from the University of Toronto's UTEST CLA program and others, TrendMD graduated from Y Combinator this year and closed a \$3.3 million (US) financing round led by Arena Ventures, bringing global investment in the company to \$5.5 million (US). Last year, the TrendMD Network grew by more than 100 times and now includes more than 3,000 journals and blogs with monthly growth of 25 per cent. TrendMD helps doctors and researchers find the most valuable content while giving publishers, authors and funders new ways to reach engaged and targeted audiences.

# GLOBALSTART

## Helping start-ups tap global markets

The GlobalStart Voucher Program supports youth-led technology based start-ups that are engaged through the CLA and OCEA programs and the Ontario Regional Innovation Centres and are targeting emerging markets outside North America. Qualifying start-ups are placed with a host incubator or accelerator in a selected global market for between three and six months.

Launched in the fall of 2015 as a pilot, the program awarded 10 vouchers each worth \$15,000 (with matching funds from the start-up) to companies with projects in Uruguay, Hong Kong, India, South Africa, New York (2), Texas, Boston, San Francisco and Philadelphia. Some companies are already reporting



*GlobalStart awardee Colin Pritchard, Co-Founder and COO of Interactive Studios Inc. at the Canadian Pavillion of the World ICT Expo in Hong Kong in April.*

new partnerships and sales growth in their selected global market, along with obtaining entrepreneurial training and on-the-ground expertise. Now out of its pilot stage, Global Start will allocate up to 100 vouchers over the next two years.

### Desktop circuit boards



**Voltera** has developed the V-One circuit prototyping machine that cuts fabrication time from weeks to hours using nanoparticle-based conductive inks. This allows for manufacturing of circuit boards right on a desktop. The Kitchener-based start-up has been recognized as Techcrunch Battlefield Champions and one of the top ten Most Innovative Kickstarter Projects ever, and was the first Canadian company to win the James Dyson Award. The University of Waterloo's Velocity CLA program team helped get the company through early growing pains. This summer, Voltera began shipping units pre-ordered through a crowdfunding campaign to over 40 countries. The company will work closely with customers to improve the V-One end user experience while scaling the team to match product demand.

### The perfect colour



Founded in 2013, Hamilton-based **Nix Sensor Ltd.** has developed the Nix Pro Color Sensor, a tool that measures colour more accurately and conveniently than ever. It offers industry-grade colour accuracy without the frustration of using cumbersome fan decks or swatch books that are prone to imperfections. Supporting a wide range of professionals across numerous sectors, Nix Pro provides precise colour data sent right to a smart phone or tablet. Through its work with Hamilton's CLA, the Forge, the company accessed prototyping with a 3D printer and laser cutter, skills development and funding programs. Having won a number of awards and strong industry recognition, the company is now expanding revenue, customer base and workforce to meet demand.

### Focused on interiors



Ottawa-based **InteractiveStudios Inc.**, a software development company, creates interactive solutions for organizations operating large, multi-building campuses that serve multitudes of visitors. It is a spin-off of Carleton University's Capital Entrepreneurs CLA program Lead to Win. The CLA provided InteractiveStudios with mentorship, networking events, office space and pitch opportunities. The company has morphed from a digital directory for large hospitals, malls and campuses into a content management and back-end analytics operation that provides critical data and general demographics (e.g., customers walking through malls and their shopping habits). The product has been sold to Queensway Carleton Hospital and Cadillac Fairview.

## Gaining a competitive edge with TalentEdge



Under this \$17 million, four-year program, Ontario students and recent graduates from across all disciplines can apply their skills and expertise to solving industry problems. A two-pronged program, TalentEdge enables university students and recent grads and Ontario-based PhD graduates and postdoctoral fellows (PDFs) to work on industry driven research and development projects.

By equipping industry with highly skilled R&D personnel and helping build research and development capabilities, TalentEdge is creating jobs and stimulating economic growth in Ontario.

### Seeing the path from research to consumer



From left to right: Darian Blanchard, BSc MSc, Biomolecular Engineer, Christopher Osuch, BSc MD, Medical Consultant, Sr. Scientist, Molecular Biology

When Darian Blanchard joined **Aterica Health Inc.** as a TalentEdge intern a year ago September, he was only 25 and straight out of grad school. Now he's a full-time bio-molecular engineer at the forward-thinking digital health company "and can't wait to see what happens next."

The internship proved to be a perfect fit for him given the company's multidisciplinary and individual-focused approach. Exposed to many aspects of the

tech industry, Darian "witnessed the process of bringing a product from the research stage to the consumer level."

Last year, the Consumer Electronics Show (CES) named Aterica's Veta™ Smart Case & App for epinephrine auto-injectors such as EpiPen® an Innovation Awards Honoree. The Veta system's smart case replaces the stock epinephrine auto-injector case and has a mobile app that shares life-saving information about the user's location and

automatically broadcasts an alert whenever the auto-injector is removed from the smart case - one of many functions that help individuals and families living with anaphylaxis.

Darian helped out with the Veta project. He was also brought onto the Aterica team for an exciting new project that would utilize his expertise in toxicology and chemistry.

"Darian joined us near the end of the proof-of-concept stage," says Aterica senior scientist Dr. Christopher Osuch. "With his help, we are now developing our prototype." Darian quickly made his mark on the company. Since he came onboard, the R&D of the project has progressed faster and with a clearer focus, Osuch says.

Darian is optimistic about the future. "In an innovative but small start-up, the potential for growth is really enormous!"

- Since the program was launched in February 2014, OCE has supported **762 internships** and **153 fellowships**.
- OCE commitment of \$11.7 million for these internships and fellowships has resulted in **leverage of \$24.9 million** from industry and the federal government.
- In just two years, **384 companies** and **35 academic institutions** have participated in at least one TalentEdge project.

**62%**  
of recent TalentEdge  
grads hired by  
participating company

## TalentEdge returns Fellow to first love

When **Morgan Solar**'s Director of Science, Stefan Myrskog, recruited Alma Bardin to join the team as a TalentEdge postdoctoral fellow, Alma jumped at the chance. She left a position at a research hospital to return to her first love: quantum optics and the interactions between light and matter. During her fellowship, Alma worked closely with Morgan Solar's engineers and scientists to update standard performance characterizations with a flexible laser system for improved reliability, accuracy and reduced costs.

Working for a cleantech start-up has given Alma the chance to make real changes to the world and she is thriving in her new position. "I love the fast-paced environment," Alma beams. "We're already working on creating new iterations of the laser tester I helped develop."

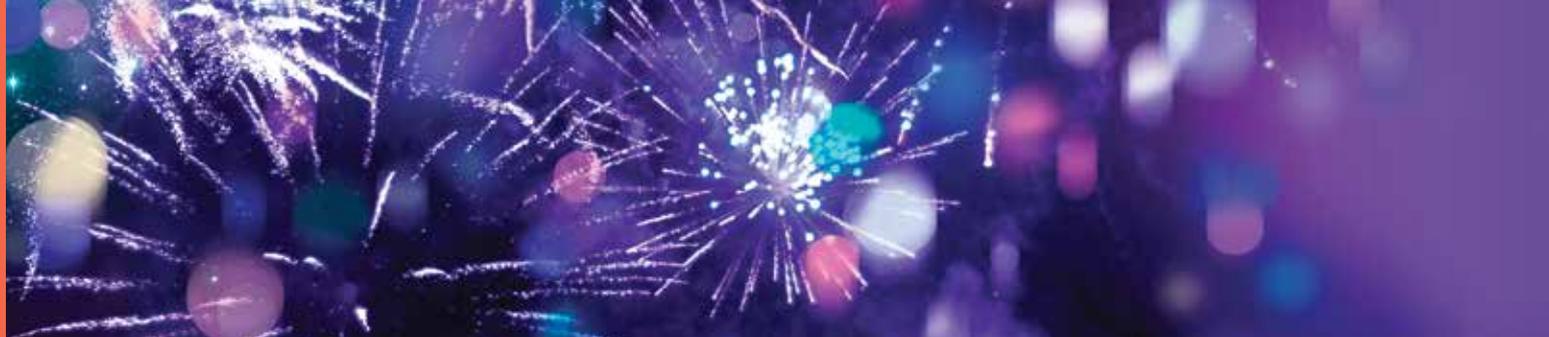
She has also had an opportunity to address her work on a global platform. She recently presented her findings at CPV-12, an international conference on concentrator photovoltaic systems—Morgan Solar's bread and butter—in Germany. "The conference was really a highlight for me. It was a moment when applied academics and industry came together. The participants were very excited with our findings. And TalentEdge made it happen."

Morgan Solar recently made Alma a full-time member of their science team.



From left to right: Nic Morgan, VP Business Development, John Paul Morgan, CTO, Alma Bardin, Senior Scientist - Optics, Stefan Myrskog, Chief Scientist

"We've had a phenomenal experience with the TalentEdge program," co-founder Nicolas Morgan says. "As a start-up, we simply would not have had the funds to bring in top talents like Alma and Stefan, a former recipient of OCE's First Job Program grant." TalentEdge helps bring in non-dilutive funding, which investors and stakeholders love to see, says Nicolas. "It's always important to find creative ways to fund a company. The more third-party validation you get, the better the company looks."



## Mind to Market Award



**Clear Blue Technologies**, a smart off-grid technology company, was named winner of the prestigious Mind to Market Award (valued at \$25,000) at OCE's Annual General Meeting on Oct 22, 2015. Clear Blue has developed the most advanced technology to power, control, monitor and proactively service solar and wind-based systems, such as outdoor lighting, mobile power and security. Since founded in 2011, Clear Blue has partnered with George Brown College and Centennial College on a number of research and development projects. OCE has made several investments in Clear Blue, which have been instrumental in helping the company commercialize its green-energy technology. The award celebrates the best OCE-supported research collaboration between the business and research communities, resulting in effective commercialization of leading-edge ideas and solutions.

## David McFadden Energy Entrepreneur Challenge



**Argentum Electronics** was presented with \$25,000 and a suite of business services to advance their business concept after winning the David McFadden Energy Entrepreneur Award at Discovery. Argentum's All2One Solar Power Combiner (A20), a "smart solar controller," incorporates existing small-scale solar-power technologies with a unique circuit design to help homeowners generate electricity more efficiently so that they may untether themselves from "the grid". The Challenge was created to advance business innovations in the energy field. This year's theme: "conservation as a tool to meeting the world's energy challenges".

## Martin Walmsley Award



Sam Molyneux, co-founder of Toronto-based **Meta** (formerly known as ScienceScape), won the \$25,000 Martin Walmsley Award for Entrepreneurship for his company's groundbreaking big-data platform, which connects researchers to the most up-to-date papers and publications in their field. Using SOSICIP's advanced computing tools, Meta is able to analyze more than 25 million papers from the PubMed database as well as dozens of other academic publishers, with which the company currently has partnerships. Users can subscribe to follow desired fields, researchers, journals and labs/institutions as well as discover the papers most relevant to their research using Meta's powerful search capabilities. The award, announced at OCE's 2015 AGM, supports Ontario graduate students' businesses that are founded on university-based research.

## Social Enterprise and Accessibility Tech Pitch Competitions



Discovery 2016 hosted the inaugural Social Enterprise and second Accessibility Tech Pitch Competitions for Ontario-based companies. **iMerciv** won the Accessibility Tech Pitch Competition award while the Social Enterprise Pitch Competition went to **Wastenot Worm Farms**. iMerciv caters to the orientation and mobility needs of those living with vision loss through their BuzzClip, a new wearable assistive technology. Wastenot Worm Farms harnesses the power of worm castings to solve the problem of insufficient and inefficient composting in Ontario. Both iMerciv and Wastenot Worm Farms received a \$20,000 award package.

# CELEBRATING EXCELLENCE IN ENTREPRENEURSHIP

## Young Entrepreneurs: Make Your Pitch

Meet the six winners of the *Young Entrepreneurs, Make Your Pitch* high-school competition, offered under the Ontario Youth Jobs Strategy. They were chosen from 20 finalists who presented their ideas in front of a judging panel at this year's Discovery, Canada's leading innovation-to-commercialization conference.



### Proxi-Meet

**Betty Pu, Grade 12, Bayview Secondary School, Richmond Hill**

Want to meet up with friends, business partners or, maybe, a date? Meet in the middle: Proxi-Meet is software designed to help people meet where 70 per cent of people say they want to connect. The software, intended for business licensing, takes two or more addresses, finds a mid-point and suggests an address.

### Vibe Venture

**Rose Shao, Grade 12, St. Aloysius Gonzaga Secondary School, Mississauga**

Did you know an average pair of prescription hearing aids cost more than \$1,400 and most health-care systems don't cover the expense? A simpler, cheaper alternative to hearing aids, the Vibe is a bracelet that responds to sound with sensory outputs such as vibration and light. A life-saver and a life-improver, the Vibe wearable integrates with a smartphone app that shares data with loved ones.

### Bookshopop

**Kailyn Seo, Grade 11, North Park Secondary School, Brampton**

Tell your unique story. Bookshopop offers creative and interactive template books to replace greeting cards for holidays and celebrations, from proms to birthdays. Bookshopop products will be sold through their website.

### Manitou Massage

**Alicia Kejick, Grade 11, Beaver Brae Secondary School, Kenora**

Manitou Massage is a tranquil place in Kenora, Ontario for rejuvenating the body and de-stressing the mind with therapeutic massage and treatment. Specializing in deep tissue massage, reflexology and prenatal massage, Manitou Massage is perfect for those suffering from chronic pain, muscle aches, anxiety and fatigue.

### Bot-in-a-Box

**Matthew Piercey, Grade 10, Heritage Christian Academy, Barrie**

Bot-in-a-Box is an accessible robot kit designed to teach students the basics of robotics and programming for less than \$100. In a kit the size of a shoebox, a class will receive a computer chip, motors, propellers, wheels, sensors and everything else required to build a robot.

### Geco

**Sean Cornelius, Grade 9, St. André Bassette Catholic Secondary, London**

Geco is a creative design company that helps small businesses in southwestern Ontario grow by reducing expenses and making the most of small advertising budgets. Specializing in video production and social-media marketing, Geco develops client bases while refining brand identity.

# Our Partnering Forums

Bring our partners together to develop partnerships and collaboration across all sectors

## 2nd Aerospace Technology Partnering Forum

More than 150 participants from Ontario aerospace companies and academic researchers explore partnerships for developing innovative technologies.



## Advancing Education Partnering Forum

More than 200 representatives of education and the edtech sector gather to find Ontario-made solutions for challenges in the education system.



## Advancing Health Partnering Forum

180 health and government officials, investors and representatives of technology companies explore how innovation can improve patient care.



## 2nd Smart Computing R&D Challenge Partnering Forum

More than 200 representatives of smart computing, big data, and cybersecurity sectors connect to identify collaboration opportunities.



## Ontario-Quebec Cybersecurity R&D Challenge Partnering Forum

Researchers and industry from Ontario and Quebec meet to explore commercialization of technologies, products and services in the area of cybersecurity.



Canada's leading innovation-to-commercialization conference, showcasing leading-edge technologies, best practices and research in Ontario.

"You make and drive change. The innovations you bring to market whether in communications, renewable energy, life sciences or clean tech change peoples' lives and for the better."

Premier Wynne speaking to attendees at Discover 2016.



SAVE THE DATE  
**Discovery**  
May 15-16, 2017

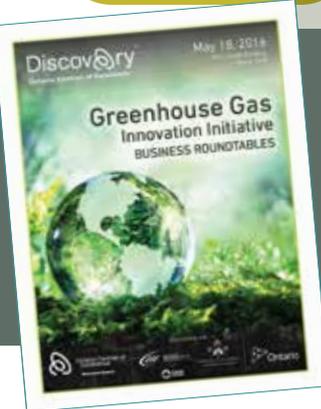


### Top incubators highlighted



#### Incubator Awards Event

UBI Global and OCE co-host the recognition event of top performing university business incubators in North America 2015.



#### TargetGHG Roundtables

OCE holds roundtables with large industry emitters and company solution providers to discuss how to meet greenhouse gas reduction targets.

<b>360pi</b>	<ul style="list-style-type: none"> <li>• 2015 Top 10 Customer Satisfaction, RIS Software LeaderBoard</li> </ul>
<b>AOMS Technologies</b>	<ul style="list-style-type: none"> <li>• 2015 Finalist, GTAN   START Pitch Competition</li> </ul>
<b>Atomic Works</b>	<ul style="list-style-type: none"> <li>• 2015 Recipient, NRC-IRAP Technology Innovation Grant</li> </ul>
<b>Bartesian Inc.</b> (formerly MaxMixology)	<ul style="list-style-type: none"> <li>• 2016 Named One of the Best of CES</li> </ul>
<b>BlancLink Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Fundica Roadshow</li> <li>• 2015 Winner, Top Start-Up, TIE50</li> </ul>
<b>Blockthrough</b>	<ul style="list-style-type: none"> <li>• 2016 Named One of "Top 10 Startup in AdTech," Launch Festival</li> </ul>
<b>Blue Orchid Care Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 3rd Place, Lion's Lair Finalist</li> </ul>
<b>BrainsView Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Recipient, Ontario Brain Institute (OBI) Fellowship</li> </ul>
<b>BRIKA</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Webby Award, Best Home/Welcoming Page</li> </ul>
<b>Brizi Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Sports Tank Award: Audience Choice</li> </ul>
<b>Brüha Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, Lion's Lair Competition</li> <li>• 2016 Finalist, 1Awards, FirstOntario Credit Union</li> <li>• 2016 Nominee, Readers' Choice Awards, <i>Hamilton Spectator</i></li> </ul>
<b>CareKit Health</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, e-Health Hackathon</li> </ul>
<b>Cast Connex</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Architizer A+ Award</li> <li>• 2015 Winner, Schreyer Award, Association of Consulting Engineering Companies</li> <li>• 2015 Winner Award of Excellence, Association of Consulting Engineering Companies</li> <li>• 2015 Co-winners, Humanitarian Award, the Canadian Institute of Steel Construction</li> <li>• 2015 Winner, R+D Award, Journal of the American Institute of Architects</li> <li>• 2015 Winner, Regional Steel Design Awards, Engineering Award</li> </ul>
<b>ChipCare Corporation</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Company of the Year Award, Maple Leaf Angels</li> </ul>
<b>Chipsetter Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, People's Choice Award, Lion's Lair</li> </ul>
<b>Clear Blue Technologies</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Mind to Market Award, Ontario Centres of Excellence</li> <li>• 2016 Winner, Clean50 Award for 2015, Delta Management Group</li> </ul>
<b>Clearpath Robotics Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, RBR50 Award</li> </ul>
<b>Daniel Christian Tang</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Best Emerging Designer, <i>Fashion Magazine Award</i></li> <li>• 2016 Winner, People's Choice, <i>Fashion Magazine Award</i></li> </ul>
<b>DBA Ourotech</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Wolves Summit Prize</li> </ul>
<b>Dozr Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Communitex Rev Demo Day, Communitex</li> </ul>
<b>Encycle</b> (formerly Regen Energy)	<ul style="list-style-type: none"> <li>• 2016 Winner, Global Cleantech 100 Award</li> </ul>
<b>EnerMotion Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Caledon Chamber of Commerce Business Excellence Awards, Technology and Innovation</li> </ul>
<b>ERNO Technologies Corp.</b> (a/o ShapeTrace)	<ul style="list-style-type: none"> <li>• 2015 Winner, Up-Start! Competition Award, MaRS</li> </ul>
<b>eSight</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Chairman's Award for Advancements in Accessibility (FCC)</li> </ul>
<b>eStaffMatch Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, Get in the Ring</li> </ul>
<b>Eve Medical</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, Quest Award, Genentech</li> <li>• 2016 2nd Place, RESI@JPM Conference</li> </ul>
<b>FarmLead Resources Ltd.</b>	<ul style="list-style-type: none"> <li>• 2015 Named one of Metabridge Top 15</li> </ul>
<b>Formen</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Global Trend Setter Award, CosmoProf</li> </ul>
<b>GaitTronics</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Best Canadian Startup, Robot Launch</li> <li>• 2015 Finalist, Startup Pitchfire Award, RoboBusiness</li> </ul>
<b>GaN Systems</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, "Start-Up to Watch" Award, Global Semiconductor Alliance Ceremony</li> </ul>
<b>GoFish Cam</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Most Promising Startup Award, Small Business Challenge Contest</li> </ul>
<b>Gymtrack</b>	<ul style="list-style-type: none"> <li>• 2016 Top 5 Startups, University of Ottawa</li> <li>• 2015 Named Most Industry Disrupting in Ottawa, Product Hunt Ottawa</li> </ul>
<b>iMerciv</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Accessibility Tech Pitch Competition</li> </ul>
<b>IntellDynamics Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner VentureLAB TrailBlazer Award</li> <li>• 2016 Named Branham's Top 25 Up and Coming ICT Companies</li> </ul>
<b>Intellijoint Surgical Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Futurpreneur Shopify Grit Award</li> </ul>
<b>KARIBU Solar Power</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Engen Business Achievement Award, The Greater Oshawa Chamber of Commerce</li> <li>• 2015 Named One of "Top 30 Under 30," Corporate Knights</li> </ul>
<b>Kids Health Record</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Start-up of the Year, Small Business Achievement Awards (KAI Innovations)</li> </ul>
<b>Koho</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, NASDAQ Fintech Innovation Award</li> </ul>
<b>Legworks Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Accessibility Tech Pitch Competition, Ministry of Economic Development and Growth</li> </ul>
<b>Limestone Labs</b>	<ul style="list-style-type: none"> <li>• 2015 2nd Place, 43North Business Idea Competition</li> </ul>

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

<b>Loop Lab</b> (Velo Labs Inc.)	<ul style="list-style-type: none"> <li>• 2015 Winner, Startup Next Toronto, Techstars</li> </ul>
<b>Magnusmode Ltd.</b>	<ul style="list-style-type: none"> <li>• 2016 Top 5 Winner, SheEO's Radical Generosity Funding Initiative</li> </ul>
<b>Meta</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Martin Walmsley Award</li> </ul>
<b>Micharity Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, Investment Ready Company Award, Unlock Your Big Idea</li> </ul>
<b>Miovision</b>	<ul style="list-style-type: none"> <li>• 2015 Named Technology Fast 50™, Deloitte</li> </ul>
<b>MyndTec</b>	<ul style="list-style-type: none"> <li>• 2015 Named One of 20 Promising Canadian Digital Health Companies to Watch, Hitconsultant.net</li> <li>• 2015 Named One of the Top 5 Digital Health Giants You Should Be Watching, Healthcareglobal.com</li> <li>• 2015 Winner, Dr. Miles R. Popovic, Inventor of the Year Award for 2014, University Health Network</li> </ul>
<b>Neurovative</b>	<ul style="list-style-type: none"> <li>• 2016 Nominee, Small Business of the Year Award, Kitchener-Waterloo Chamber of Commerce</li> </ul>
<b>Neutun Labs Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Named One of Inc.com's "30 Under 30"</li> </ul>
<b>Nulogy</b>	<ul style="list-style-type: none"> <li>• 2015 Named Technology Fast 50™ and Fast 500™, Deloitte</li> <li>• 2015 Winner, Best Employer with Highest Honour of Platinum Status, Aon Hewitt</li> </ul>
<b>Oxilight Inc.</b>	<ul style="list-style-type: none"> <li>• 2016 Nominee, Innovative Business, UCPBA Award</li> </ul>
<b>ParticipAid</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Best Innovation for Tech Business, Unlock Your Big Idea Pitch Competition Awards</li> <li>• 2015 1st Place, I-CUBE Accelerator Program</li> <li>• 2015 1st Place, BLUE3 Hackathon</li> </ul>
<b>PathCore Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Semi-Finalist, Small Business Challenge, TELUS and <i>Globe and Mail</i></li> <li>• 2015 Semi-Finalist, Small Business Challenge, TELUS and <i>Globe and Mail</i></li> </ul>
<b>Pearl's Choice</b>	<ul style="list-style-type: none"> <li>• 2016 Recipient, VentureLAB, Boost Grant</li> <li>• 2015 Recipient, Canada-Ontario Job Grant</li> <li>• 2015 Recipient, Futurpreneur funding</li> <li>• 2015 Winner, Toronto Board of Trade, Entrepreneur of the Year</li> </ul>
<b>Qoints</b>	<ul style="list-style-type: none"> <li>• 2015 Finalist, 43North Business Idea Competition</li> <li>• 2015 Winner, N100 Startup Competition</li> </ul>
<b>QReserve Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Finalist, Lion's Lair</li> </ul>
<b>Rover Parking</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, TieQuest</li> <li>• 2016 Finalist, QVN Upstart</li> <li>• 2015 Top 3, BNN Disruptors</li> </ul>
<b>Rubikloud</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Companies-to-Watch Award, Technology Fast 50™, Deloitte</li> <li>• 2016 Finalist, Emerging Companies: The Disruptor, Vision to Reality Awards, PricewaterhouseCoopers</li> </ul>
<b>SAMETRICA</b> (formerly Social Asset Measurements Inc.)	<ul style="list-style-type: none"> <li>• 2015 Winner, Technology Innovation, Business Excellence Awards, Toronto Region Board of Trade</li> </ul>
<b>SilkStart Technologies Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Named One of "Canada's 20 Most Innovative Technology Companies," the Canadian Innovation Exchange (CIX)</li> </ul>
<b>SNIPER SKIN</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Lion's Lair</li> </ul>
<b>SoJo</b>	<ul style="list-style-type: none"> <li>• 2016 Finalist, Futurpreneur &amp; RBC International Women's Day Entrepreneur</li> <li>• 2015 Winner, Innovation Award, Ashoka U and Cordes</li> </ul>
<b>Sojourn Labs</b>	<ul style="list-style-type: none"> <li>• 2015 Jonathan Lung (Sojourn Labs Co-Founder), Ontario Brain Institute's Entrepreneurship Award</li> </ul>
<b>Sound Options Tinnitus Treatments Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Life Sciences Competition, Synapse</li> </ul>
<b>Source My Garment Consulting Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Nominee, #SocialForGood Award, Women in Biz Network</li> </ul>
<b>SparkGig</b>	<ul style="list-style-type: none"> <li>• 2015 3rd Place, Queen's Entrepreneurs' Competition</li> </ul>
<b>SSIMWave Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Dr. Zhou Wang (SSIMWave Founder), 67th Engineering Emmy Award</li> </ul>
<b>TechBoomers.com</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Ignite Niagara Pitch Competition</li> </ul>
<b>The Sampler App Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Mondelez Shopper Futures</li> </ul>
<b>Topspin Technologies Ltd.</b>	<ul style="list-style-type: none"> <li>• 2016 Winner, Techcellence Award in Innovation, TechAlliance</li> <li>• 2016 Winner, Synapse Award for Innovation</li> </ul>
<b>TruReach Health</b>	<ul style="list-style-type: none"> <li>• 2016 Top 4 Startups, University of Ottawa</li> </ul>
<b>uConekt Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Accepted into the BigBooster Acceleration Program</li> </ul>
<b>Videogami</b>	<ul style="list-style-type: none"> <li>• 2015 3rd Place, Next Big Idea in Sports, Ryerson University and Rogers</li> </ul>
<b>Vitameter Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Best Hardware Setup, Velocity Fund Finals Competition</li> <li>• 2015 Winner, Velocity Fund Finals Competition</li> </ul>
<b>Voltera</b>	<ul style="list-style-type: none"> <li>• 2015 Named One of Top 10 Innovations for 2015, <i>Popular Science</i></li> <li>• 2015 Winner, James Dyson Award</li> </ul>
<b>Xagenic Canada Inc.</b>	<ul style="list-style-type: none"> <li>• 2015 Winner, Life Science Company of the Year, Life Sciences Ontario</li> </ul>
<b>Yazabi Predictive</b>	<ul style="list-style-type: none"> <li>• 2016 Recipient, Impact Centre Project Supplement</li> </ul>

# Ontario Centres of Excellence Inc. Governance



## Board of Directors 2015/16

**Michael J. Nobrega**  
Corporate Director  
CHAIR OF THE BOARD  
EXECUTIVE COMMITTEE (CHAIR)

**Bob Richardson**  
Executive Vice President  
& National Practice Lead  
Public Affairs Canada  
Edelman  
VICE-CHAIR AND SECRETARY  
EXECUTIVE COMMITTEE  
GOVERNANCE & NOMINATING  
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**Charles Bouchard**  
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HUMAN RESOURCES AND  
COMPENSATION COMMITTEE

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Deputy Minister  
Ministry of Economic Development  
and Growth  
Ministry of Research, Innovation  
and Science

**Bill Mantel**  
Assistant Deputy Minister  
Research, Commercialization and  
Entrepreneurship Division  
Ministry of Economic Development  
and Growth  
Ministry of Research, Innovation  
and Science

**Rachel Simeon**  
Director, Commercialization Branch  
Ministry of Economic Development  
and Growth  
Ministry of Research, Innovation  
and Science

## Executive Team

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President and CEO

**Bob Civak**  
Senior Vice President, Business  
Development and Commercialization

**Narinder Dehal**  
Vice President, Finance,  
Programs and Administration

**Sharon Jobity**  
Vice President, Human Resources  
and Talent Acquisition

**Dr. Claudia Krywiak**  
Vice President, Corporate Development,  
Planning and Strategic Initiatives

**Anne Wettlaufer**  
Vice President, Marketing,  
Communications and Public Affairs

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.



- Editor .....**Anne Kershaw**, Senior Manager, Strategic Communications, OCE
- Success Stories Writer .....**Ariel Visconti**, Communications Coordinator, OCE
- Contributor .....**Tony Fong**, Marketing and Communications Coordinator, OCE
- Photography Editor .....**Gianpaolo Andreis**, Manager, Marketing & Digital Media, OCE
- Designer & Project Manager .....**Deanna Tosto**, RGD, Graphic Design & Production Specialist, OCE
- Photographer .....**Lucia Graca Remedios**

# OCE AT A GLANCE

- Ontario Centres of Excellence's (OCE) is a **not-for-profit** that was formally established in 1987 with seven independent centres that evolved and amalgamated into Ontario Centres of Excellence Inc. in 2004.
- In partnership with industry and academia, OCE **co-invests to commercialize innovation** originating in the province's colleges, universities and research hospitals.
- OCE provides real-world commercialization experiences for **Ontario's next generation of innovators and entrepreneurs**.
- OCE **connects the dots between industry and academia** while providing and identifying additional sources for funding and support to ensure the best ideas receive the support they need to get to market.
- In deploying experienced teams of Business Development Managers to all corners of the province, OCE has a **province-wide footprint** with ten offices located in Toronto, Mississauga, Waterloo, Ottawa, Windsor, London, Hamilton, Markham, Sudbury and Oshawa.
- OCE has significant expertise in "**de-risking**" **innovation**; small- and medium-sized enterprises typically overlooked by traditional investors have achieved market success through OCE support and subsequent financing from angel investors and venture capitalists.
- OCE is a member of the **Ontario Network of Entrepreneurs (ONE)**, Ontario's industry-focused, province-wide innovation network.
- OCE's expanding network of partnerships within the innovation ecosystem drives commercialization, knowledge mobilization and the development of highly qualified personnel.
- 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.
- In 2015-16, OCE managed **762 new research, commercialization and talent projects**.
- OCE invested **\$44 million** this year in Ontario's innovation ecosystem and leveraged an additional **\$91.5 million**, the majority of which comes from industry, for a **total investment of \$135.5 million**.
- The leverage that was attracted was 1.9 times the provincial funding received allowing us to commit almost **3 times** the provincial funding.
- **55.6 per cent of additional investment** leveraged by OCE **comes from industry**.
- OCE continues to **reduce its operating costs** as a percentage of total funding deployed through efficiency and streamlining measures, dropping from 16.6 per cent in 2009/10 to 9.3 per cent in 2015/16.
- **In 2015/16, 6,071 jobs** were created or retained in industry as a direct result of OCE-funded projects and **1,566 start-ups** were supported.
- This past year, 76 OCE-supported companies were recognized with **national or international awards**.
- Our expanded young entrepreneur programs and talent offerings give students and recent graduates the opportunity to learn by doing and turning ideas into companies.
- OCE's annual multiple award-winning Discovery conference is Canada's premiere innovation-to-commercialization event showcasing leading-edge technologies and research. This year's conference drew **3,400 attendees and 500 exhibitors**. **Premier Kathleen Wynne** provided opening remarks followed by keynote speakers **JB Straubel**, co-founder and CTO, Tesla Motors and **Robin Chase**, co-founder and former CEO of Zipcar. Panel and showcase themes included aerospace, advanced health, smart computing, disruptive technology, advanced manufacturing, agri-food, water and a focus on **OCE's young entrepreneurs**, including 157 companies showcasing from OCE's Campus-Linked Accelerators, On-Campus Entrepreneurship Activities and SmartStart programs.

FOR MORE INFORMATION VISIT  
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