

Ontario Centres of
Excellence

Where Next Happens

Ontario Centres of Excellence is a member of



Ontario Network of Entrepreneurs



Ontario

ROI

RETURN ON INNOVATION

Ontario Centres of Excellence Inc.

ANNUAL REPORT 2016/2017

OUR STORY

About us

Over the past three decades, Ontario and Canada have invested in shifting our traditional economic foundations from those that are commodities-based and North American-focused to those that are innovation-driven and global. During that period, Ontario Centres of Excellence (OCE), in partnership with the Government of Ontario, has played an important role as a catalyst in advancing Ontario's economic transformation.

On behalf of the Province, OCE enables Ontario's great academic institutions, its dynamic and forward-looking companies and business leaders, and new generations of driven entrepreneurs to work together to create sustainable prosperity, high-quality jobs, and a better Ontario through innovation.

OCE is a key partner to government, industry, and academia in delivering Ontario's Innovation Agenda.

A not-for-profit organization, we are funded by the Government of Ontario and are a proud member of the Ontario Network of Entrepreneurs (ONE). OCE also receives funding from the Government of Canada.



Ontario Centres of Excellence is a member of



OUR MANDATE

Working with the Government of Ontario to drive the growth of a globally competitive, innovation-based economy in Ontario by:

- Taking a leadership role in industry-academic collaborations and working collaboratively with the province and the ONE to enable a high and sustainable level of prosperity
- Helping companies innovate by leveraging the outcomes and capabilities of provincial research institutions
- Providing real-world industry experience for Ontario's next generation of innovators and entrepreneurs
- Driving and supporting the commercialization of publicly funded academic research outcomes
- Expanding Ontario's network of Canadian and international partners and seeking strategic partnerships that benefit OCE clients and complement our vision and mission

WHO WE SERVE

- Entrepreneurs
- Start-up companies
- Small- and medium-sized enterprises (SMEs)
- Scale-up companies
- Large companies
- Principal investigators and students across the province's universities, colleges, and research hospitals/institutes
- Technology transfer and industry liaison offices
- Regional Innovation Centres (RICs)
- Small Business Enterprise Centres (SBECs)
- Campus-Linked Accelerators (CLA) and incubators
- International partners
- Provincial ministries
- Federal government agencies

OCE's Guiding Principles

- A focus on disruptive technology and smart network technology platforms that empower Ontario's innovators in creating products and services for a new, globally competitive digital economy
- A whole-of-government/one-stop-shop approach that enables entrepreneurs and companies to apply through OCE 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



ABOUT OUR COVER

OCE is excited about being part of Ontario's transformation to a competitive global digital economy. Thanks to all those in the innovation ecosystem who collaborated in the making of this year's Annual Report. Thanks also to artist Ben Shannon for his inspired depiction of this transformation.

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Building a competitive, digital economy in Ontario

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



What do you see as last year's main accomplishments?

TOM: It's been another extraordinary year for OCE. We continue to work with the Ontario government in expanding opportunities for entrepreneurs and SMEs to collaborate with our academic institutions in commercializing research breakthroughs, to access the advanced computing technology and business expertise required to compete in global markets, and to find early adopters and first customers in Ontario's public sector.

At the same time, the organization and our mandate have continued to evolve to meet the needs of Ontario's innovation ecosystem and help take the province to a new level in creating a dynamic and supportive entrepreneurial and business environment.

Where is OCE headed in the future?

MICHAEL: OCE is taking the next giant step in helping transform the Ontario economy to be competitive in the world. The province is investing in a focused number of areas where we have a strong foundation and experienced

people to build on the existing strengths of those sectors. These are all areas where Ontario is already well known for its leadership and the province is going to be making a major push over the next 10 to 15 years to drive these areas forward.

TOM: OCE is very excited about its new responsibilities in moving forward the implementation of these new transformative technologies that the provincial government has identified as key to accelerating the growth of a competitive digital economy. This includes emerging technologies such as cognitive computing and artificial intelligence, automated and connected vehicles, next-generation high-speed smart networks, and cybersecurity.

How will business and our economy benefit?

MICHAEL: Providing our entrepreneurs and SMEs with access to these platforms will strengthen the overall economy of Ontario and help our companies become global leaders in the development of innovative new products and services for export around the world. These are sector-agnostic platforms that any

industry can plug into to develop applications that would not previously have been possible.

TOM: In building clusters in these key areas and providing access to these new platforms, we will be supporting hundreds of student entrepreneurs, start-ups, SMEs and researchers, and helping to accelerate the commercialization of technologies such as artificial intelligence coming out of our academic institutions.

We also welcome participation by many of our large, established technology companies. Given the immense potential represented by these programs, we are already seeing strong interest from some highly successful companies in being a part of this vision for the future. We expect to see industry and government become co-investors in developing new products that can be manufactured and exported from Canada rather than imported. These big anchor companies, combined with the associated clusters of emerging companies, will experience growth opportunities that lead to significant job creation and prosperity.

Are you confident you can achieve your goals?

MICHAEL: OCE is mindful that these transformative technologies involve major financial commitments from the province, and with that goes a heightened sense of accountability and resolve to produce tangible results. This is about forging a new economy and achieving the financial and industrial outcomes that make that a reality.

TOM: In delivering these programs, we are expected to meet and exceed targets set by the Ontario government in areas such as job creation and, in the case of our TargetGHG program, demonstrable reductions in greenhouse gas emissions. But we intend to go beyond that. Ultimately, our goal is to see companies attract the venture capital investments and partnerships that will take them to the next stage of competitiveness and success.

Why is OCE the right organization to spearhead these programs?

MICHAEL: We understand that we have been given the opportunity to lead these programs as a

result of our proven track record in delivering programs for the province. We have been tested and proven successful. It has taken time and patience and proactive strategic planning. We are now going to be building on many of our existing programs in areas of connected and automated vehicles, advanced computing, talent development and market readiness to deliver these larger, multi-dimensional programs with the capacity to transform the province's economy.

TOM: We undertake this challenge in partnership with the entire innovation ecosystem of Ontario. We will be working with the RICs (Regional Innovation Centres) and all other members of the ONE (Ontario Network of Entrepreneurs) to deliver these exciting programs for the province. OCE's success has always depended on the strength of our partnerships and our ability to make the right connections and support the industry-academic and business-to-business collaborations that lead to the

commercialization of innovative new products and services.

Are you hopeful about the future of innovation in Ontario?

MICHAEL: There is a new game in town and the old industrial base has taken notice. They know there is no room for complacency. Companies, including banks, are participating in innovation hubs and setting up their own off-site innovation centres. To some extent, this is the result of 30 years of OCE, in partnership with industry and government, pushing the innovation agenda.

TOM: Industry is ready to invest in the research and development required to create and embrace the new technologies offered in this global digital economy. Everyone is participating. Industry is the disrupter but we are working with industry to disrupt industry. This is how we are going to be able to address the major challenges we face in areas such as smart cities, transportation, energy and the environment, and cybersecurity to create a better future.

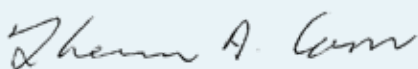
THANK YOU FROM OCE'S PRESIDENT AND CHAIR

Our success supporting Ontario's vibrant ecosystem and helping entrepreneurs and SMEs build successful companies would not be possible without the talent and commitment of the OCE team.

Their business experience, sector expertise and commercialization know-how combined with their commitment to helping the province's innovators achieve their aspirations is evident every day in their work. Thanks also to our volunteer Board of Directors, comprised of some of Ontario's most distinguished industry and academic leaders, who give generously of their time and whose advice and guidance has been invaluable in ensuring OCE plays an instrumental role in building a strong economy for Ontario.

The Government of Ontario has acted with vision and commitment in building an innovation-driven economy, and we greatly value the role it has entrusted to us of helping to achieve this transformation. As well, we thank the Canadian government and our provincial counterparts for partnering with us to strengthen national innovation efforts. We are also grateful for the support and confidence of our private-sectors partners and investors.

We are proud to report on the efforts of the past year and invite you to join us in celebrating the success of the entrepreneurs profiled in this year's Annual Report and the many other innovators contributing to a stronger, more vibrant Ontario.



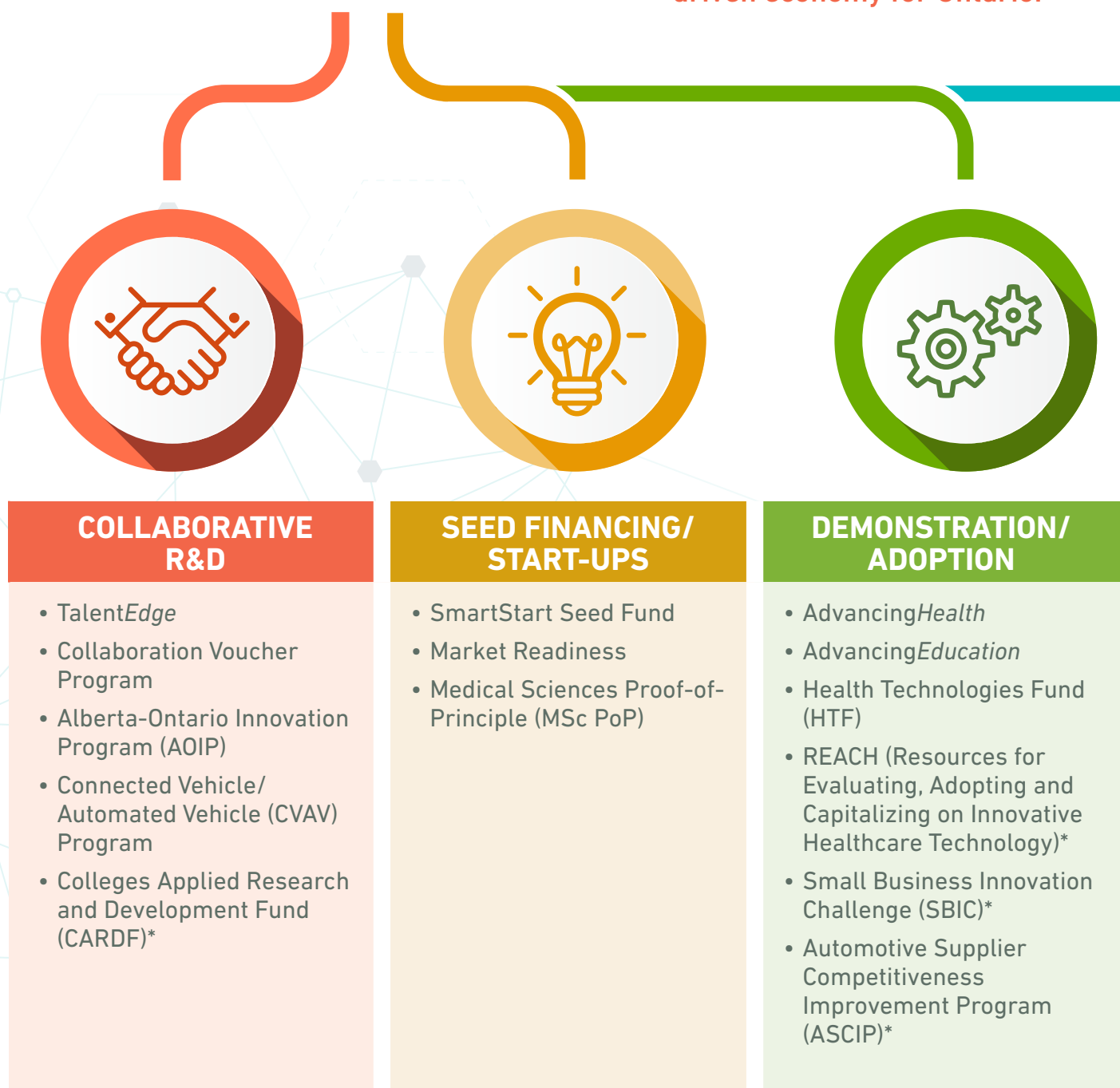
Dr. Tom Corr
President and CEO
Ontario Centres of Excellence



Michael J. Nobrega
Board Chair
Ontario Centres of Excellence

OCE PROGRAMS

OCE offers a comprehensive suite of provincially funded programs to commercialize innovation that helps create jobs, drive prosperity and equip the next generation of entrepreneurs to continue building a globally competitive, innovation-driven economy for Ontario.



In partnership with the province of Ontario, OCE works with entrepreneurs, SMEs, large industry, academic researchers and students to help them hone business ideas, secure financing and access advanced technology platforms, including the high-speed smart networks, cognitive computing and artificial intelligence required to develop creative new products and services. These business ideas are advanced to the point of industry or institution adoption and scale-up, where the game-changing economic and social benefits are realized.



GOING GLOBAL

- China Angels Mentorship Program (CAMP)
- Ontario-China Research and Innovation Fund (OCRIF)*
- Ontario-Jiangsu Industrial Research and Development Program (OJIRDP)*
- Ontario-Israel Research Network Program - MAGNET (OIRNP-MAGNET)*



ENTREPRENEURSHIP

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



GAME-CHANGING

- TargetGHG
- IBM Innovation Incubator Project
- Autonomous Vehicle Innovation Network (AVIN)*
- Cybersecurity Fintech Innovation Pilot Program (CFIPP)*

*New programs introduced in fiscal 2016-17

MEASURING SUCCESS

Delivering a return on innovation

Invested by OCE in Ontario's innovation ecosystem:

\$51.1
Million

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

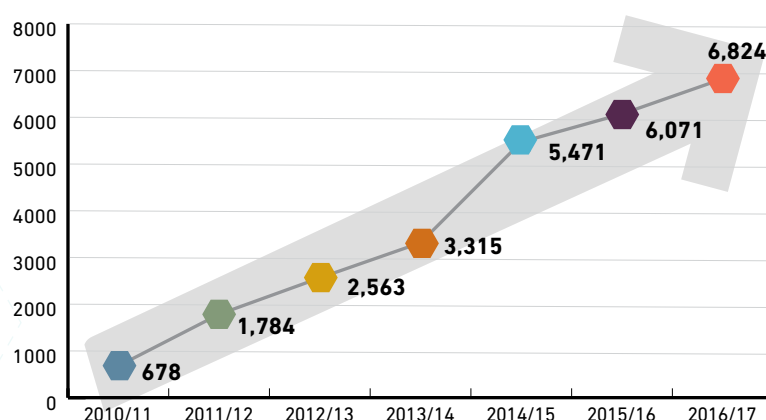
741

Cash or in-kind contributions from our partners (based on actual spending), the highest in OCE history and a **12.9 per cent increase** over last year:

\$103.3
Million

New or retained jobs directly attributed to OCE-funded projects, the highest in OCE history and a **12.4 per cent increase** over last year's 6,071 jobs:

6,824 Jobs



OCE tripled amount of government funding through leverage

The leverage attracted by OCE through public-private partnerships beyond direct government funding was twice the amount of funding we received from the province and federal government. This means OCE tripled the amount of our government funding for investment in Ontario's ecosystem.

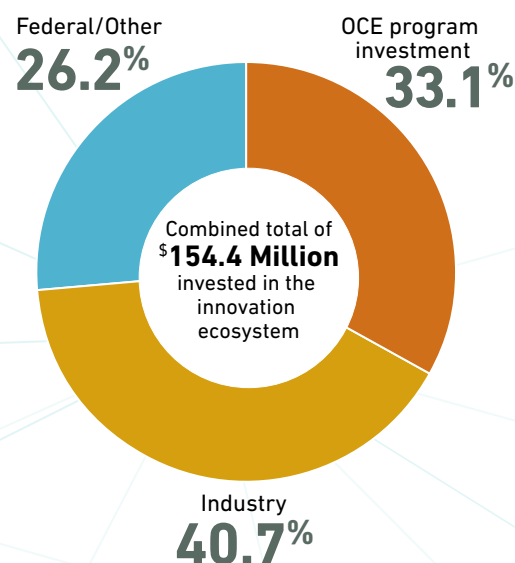
Start-ups created or supported directly through OCE seed financing or indirectly through other OCE programs, a **16 per cent increase** over last year:

1,819

Incremental sales by client companies as a direct result of OCE-funded projects:

\$151
Million

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



Below are the retrospective survey results from OCE-supported projects that were completed between January 2014 and March 2016*

Global presence

80%

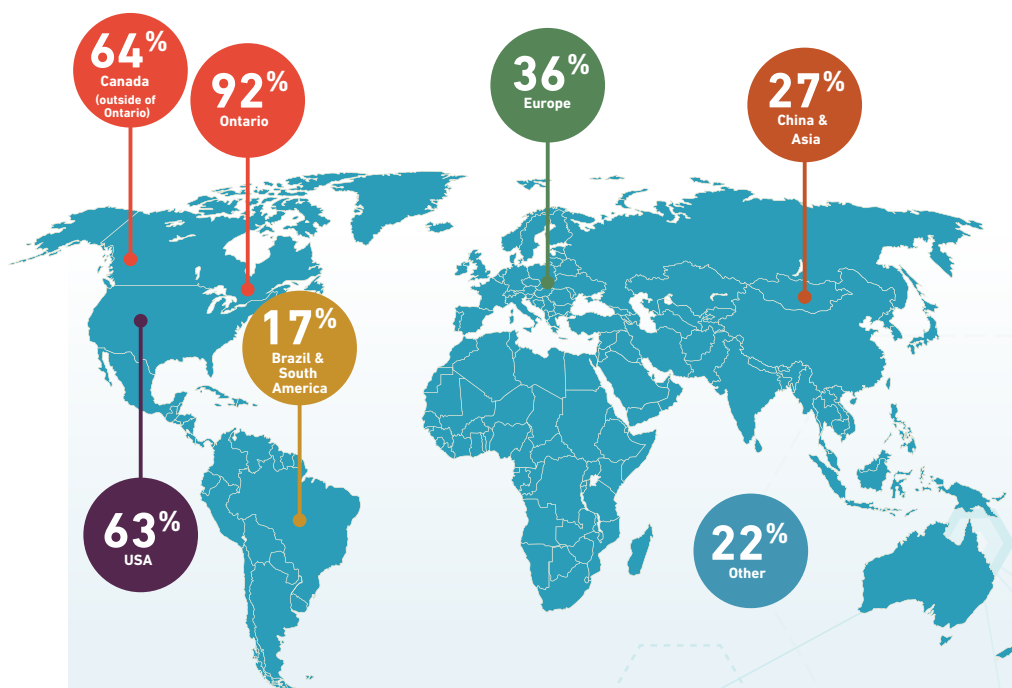
of companies are selling products and services outside of Ontario

70%

of companies are in more than one market outside of Canada

* Not including CLA and OCEA

Percentage of companies selling products and services in the following markets



Growth

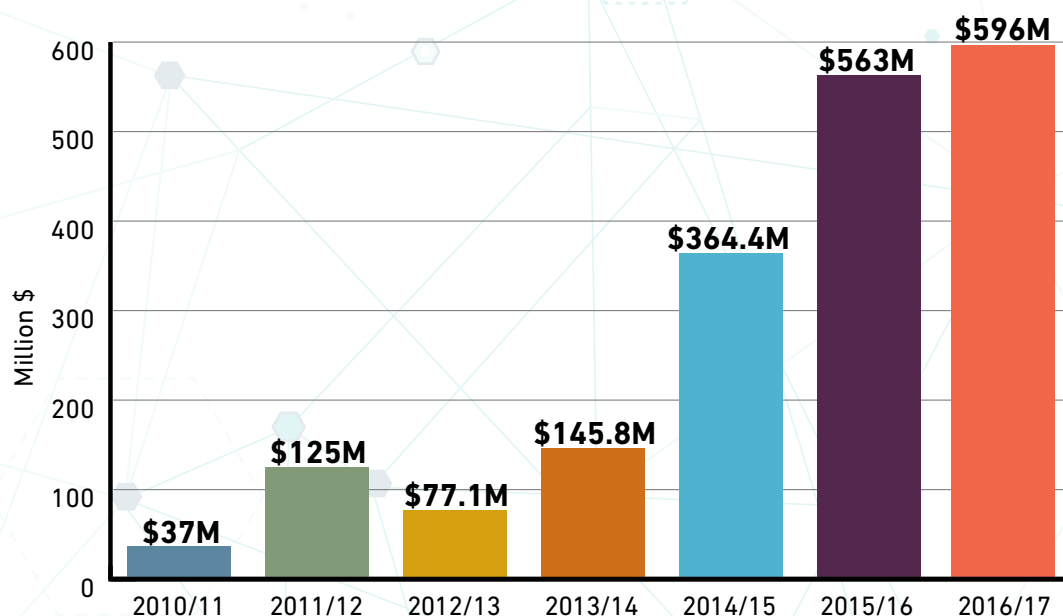
90%

of companies remain in operation with **55 per cent growing**

70%

of companies are in the stage of further technology development for next generation/next version of product or service

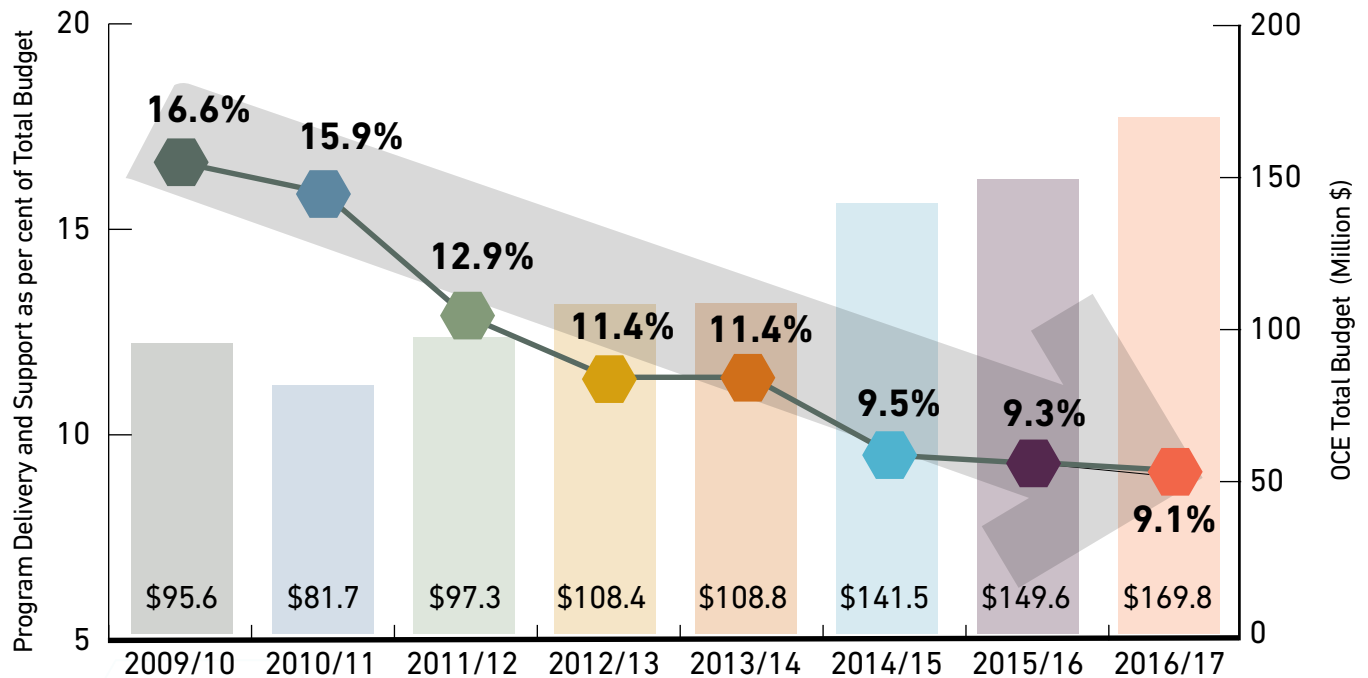
Increase in Follow-on Investment from 2010-11 to 2016-17



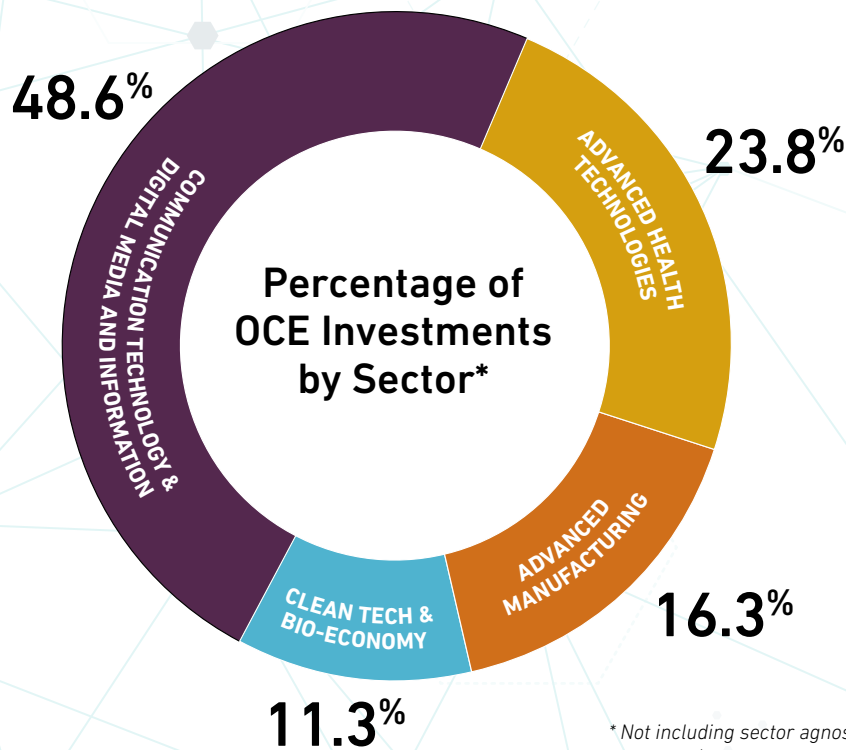
\$596
Million

follow-on investment in client companies primarily from angel investors and venture capitalists, the highest in OCE history and a **5.9 per cent increase** over last year

Efficiency – OCE Program Delivery



OCE continues to see a decline in its cost of delivering programs as a percentage of total funding deployed, decreasing from 16.6 per cent in 2009-10 to **9.1 per cent in 2016-17**. This 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 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

* Not including sector agnostic projects (e.g., CLA and OCEA)

3,781

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

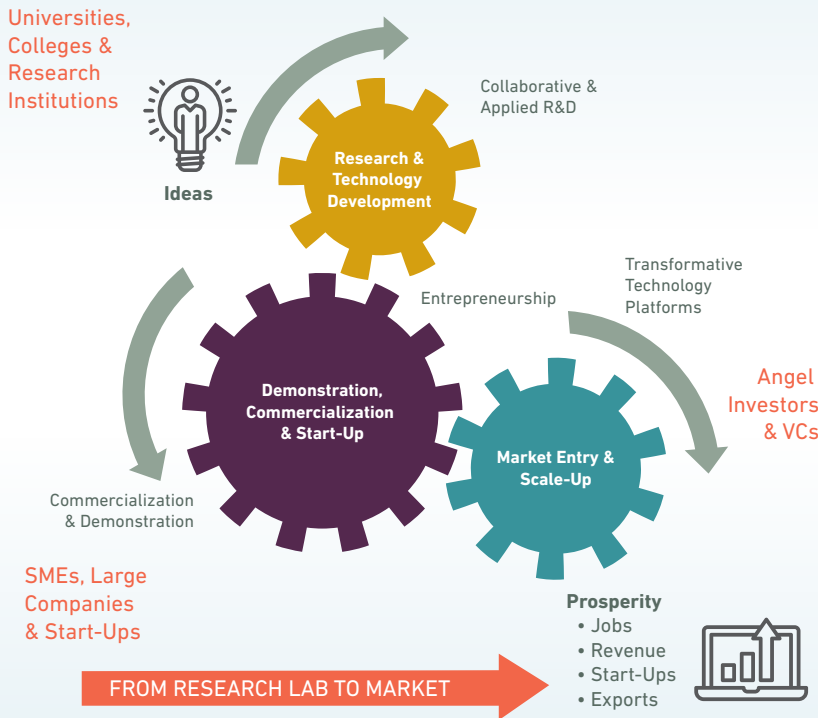
14,084

Attendees – OCE-hosted and supported events

57

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

OCE's place in the innovation continuum



OCE occupies a critical place in the innovation continuum, helping bridge the funding gap between government-funded R&D and private investment, and helping companies complete the journey from technology and product development to commercialization. We also help students and young entrepreneurs gain business skills and launch start-ups, often before they complete their post-secondary education. We partner with the Ontario government to implement transformative technologies to accelerate the growth of a competitive global digital economy, including next-generation high-speed networks. Supporting industry-academic collaboration, which is the historic foundation of OCE's mandate, continues to be a growing and integral part of our program offerings and a vital component of the innovation continuum.

Collaborating with Ontario universities, colleges, and research hospitals as drivers of innovation

HIGH DEMAND FOR JOB-CREATING PROGRAM

Our flagship Collaboration Voucher Program (CVP), offered on behalf of the Government of Ontario, provides easy access to expertise and knowledge at the province's universities, colleges and research hospitals to address industry challenges and improve productivity, performance and competitiveness.

In 2016-17, we saw an exceptional demand for our Voucher for Innovation and Productivity, which focuses on developing innovative products and is offered in partnership with NSERC and IRAP.

At the same time, our Voucher for E-Business – exclusive to Ontario colleges that are helping companies scale development and adoption of online tools – quickly reached capacity.

One of OCE's most successful job creation programs and strongest

sources of leverage and sales, CVP supported more than 350 start-ups, created or retained more than 1,200 jobs and provided training to more than 1,500 HQP (highly qualified personnel).

NEW FUND BOOSTS COLLEGES' CAPACITY TO SUPPORT INDUSTRY INNOVATION

Launched in January 2017, the \$20-million Colleges Applied Research and Development Fund (CARDF) encourages public-private partnerships between Ontario colleges and businesses to drive innovation, and offers students unique experiential learning opportunities.

Coordinated between OCE, Colleges Ontario and the Ministry of Research, Innovation and Science (MRIS), the fund connects students to the needs of the industries and economies of the future.



"As Premier, it is my job to make sure that students in Ontario are prepared for today's economy and job market. By increasing access to experiential learning opportunities, where students can solve real-world challenges, we are giving them the tools they need to thrive in the workforce."

Hon. Kathleen Wynne
Premier of Ontario

INNOVATING FOR A BETTER FUTURE

Fighting climate change through innovative technologies

Launched in February 2016, the TargetGHG program fosters development of leading-edge technologies that reduce greenhouse gas emissions and catalyzes adoption of these innovative low-carbon technologies by industry in Ontario. Managed by OCE for the Government of Ontario, the program is funded through the Ontario Green Investment Fund.

STREAM 1 supports industrial demonstration projects resulting in GHG emissions reduction through collaborations between industrial emitters and solution providers. Successful projects will be announced in Fall 2017.

STREAM 2 supports industry-academic collaborative R&D projects and Ontario-based SMEs in developing and demonstrating new and innovative technologies with strong potential to produce verifiable and sustainable GHG emissions reduction.

Projects to receive funding under Streams 1 and 2 will be announced in Fall 2017

The OCE-XPRIZE partnership and the Ontario Solutions 2030 Challenge are part of **STREAM 3** of the TargetGHG program.

Our TargetGHG partners include:



SUSTAINABLE DEVELOPMENT
TECHNOLOGY CANADA
TECHNOLOGIES DU DÉVELOPPEMENT
DURABLE CANADA



OCE goes global in search of best emissions reduction technologies

Ontario's Solutions 2030 Challenge, launched in April, 2017, is a global call for innovators to propose their solutions to help Ontario industry reduce GHG emissions.

With up to \$7 million in funding, including up to \$3 million in support for the winning team to bring their transformative technology to market, the challenge asks teams and industry to collaborate and envision a path forward to tackle climate change in Ontario and around the world.

A three-phase competition over three years, Ontario Solutions 2030 Challenge is designed to identify and accelerate the development of technologies that have a high potential to help Ontario industry meet its 2030 emissions targets.

Three Ontario teams qualify as semi-finalists in global Carbon XPRIZE challenge

Three Ontario-based teams are among the 27 semi-finalists selected from 47 international entrants in the \$20-million NRG COSIA Carbon XPRIZE competition, a global challenge to address climate change by incentivizing innovators to convert carbon dioxide (CO₂) emissions from power plants into products such as building materials, alternative fuels and other items that we use every day.

Ontario is making up to \$2.5 million available to the three successful teams. The teams at Pond Technologies, CERT and Tandem Technical are semi-finalists in the \$20-million competition with support from OCE.

OCE continues to evolve to meet the needs of Ontario's innovation ecosystem, addressing some of the province's most urgent challenges, helping to build globally competitive companies and take the province to a new level by creating a dynamic and supportive entrepreneurial and business environment.

Semi-finalists: Global Carbon XPRIZE challenge

POND TECHNOLOGIES



Who knew that humble pond scum and seaweed might hold the key to addressing food, energy and environmental concerns? Markham-based **Pond Technologies** uses algae – the dried version being a suitable replacement for coal-derived fuels – to produce biodiesel, solid biofuel, and other algae products, including algae-derived superfoods. Supported by OCE through the TargetGHG program, Pond Technologies leveraged its XPRIZE semi-finalist position into a significant equity raise in December 2016 and, in January 2017, announced a strategic partnership with Canadian global engineering firm SNC-Lavalin to be its major partner for future large algae delivery projects.

TANDEM TECHNICAL



Brushing your teeth with a by-product of GHG emissions doesn't seem intuitive, but it will if **Tandem Technical** has a say. The Kingston-based CO₂ conversion technology company and XPRIZE semi-finalist converts GHG emissions to compounds that are used to make everyday household products, such as health supplements, toothpaste, paint, and fertilizers. Funded by OCE through the TargetGHG program, Tandem Technical is now moving to rapidly commercialize and scale its operations to meet global market demand through a partnership with Enviro Innovate, a cleantech accelerator based at Queen's University's Innovation Park.

CERT



Photo Credit: Marit Mitchell

Nanoparticles are very tiny objects with big possibilities. With support from OCE's TargetGHG program, **Carbon Electrocatalytic Recycling Toronto (CERT)** developed a technique for the XPRIZE competition that uses nanoparticle-based catalysts to produce formic acid, an environmentally friendly product commonly used as a preservative for animal feed and within the textile industry. Based at The University of Toronto, the team now produces formic acid at a cost up to five times lower than fossil fuel-based processes. In February 2017, CERT began a three-year, US\$600,000 project with a multinational oil and gas company to further develop its technology.



"I am proud of Ontario's Carbon XPRIZE semi-finalists as these bright and hardworking researchers, engineers and scientists are on the frontline of fighting climate change. Ontario is proud to support their work."

Hon. Reza Moridi
*Ontario's Minister of Research,
Innovation and Science*

BUILDING CAPACITY IN THE PUBLIC SECTOR FOR INNOVATION PROCUREMENT

OCE is helping to fuel the growth of companies and develop solutions for the public sector by facilitating collaborations among innovative SMEs, public-sector institutions and academic partners to co-develop new solutions to challenges; demonstrate, implement and test technologies on site; and build a strong case and the capacity for system-wide adoption.



SMALL BUSINESS INNOVATION CHALLENGE (SBIC)

Launched in March 2017 under Ontario's Business Growth Initiative, this \$28.8-million program administered by OCE for Ontario's Ministry of Economic Development and Growth supports small- and medium-sized enterprises to develop, test and demonstrate innovative technology solutions that address public-sector challenges identified by specific government ministries. At a partnering forum in March 2017, companies were invited to tackle public-sector challenges for two Champion Ministries: digital identity, to improve citizens' ability to access government services, for the Ministry of Government and Consumer Services; and detection of the number of vehicle occupants for High Occupancy Toll lane management, for the Ministry of Transportation.



HEALTH TECHNOLOGIES FUND (HTF)

Fifteen projects demonstrating new technologies for providing better patient care closer to home received grants in the first round of OCE's HTF. Administered by OCE on behalf of the Government of Ontario's Office of the Chief Health Innovation Strategist, HTF accelerates Ontario-based health innovation and fosters partnerships between publicly funded health-care service providers, patients, academia and industry to drive collaboration that improves patient care, adds value to the health system and creates jobs in Ontario. The \$20-million fund, which accelerates Ontario-based health innovation, supports pre-market evaluation and early adoption of market-ready technologies. Round 2 results will be announced in Fall 2017.

REACH

Launched in early 2017, this program helps Ontario health-care provider organizations use innovation procurement methods to more effectively identify and procure innovative technologies and services. REACH (Resources for Evaluating, Adopting and Capitalizing on Innovative Healthcare Technology) is managed by OCE for Ontario's Ministry of Government and Consumer Services. Continuing the work of the Health Technology Exchange (HTX), the program helps build institutional capacity in innovation procurement. An OCE workshop to review case studies from Ontario hospitals drew strong interest.



"Governments need the transformative technology and innovation that start-ups can provide. This challenge is a great way to encourage businesses here in Ontario to develop solutions that can help us better serve Ontarians, while testing ideas they can ultimately export to the global market."

Hon. Brad Duguid
Ontario's Minister of Economic Development and Growth

ADVANCING EDUCATION

Two funding rounds supported 12 projects, including a game-based approach to motivating children, a multi-sensory chair for children with autism and improved student engagement in STEAM (science, technology, engineering, art and math) through social entrepreneurship. Administered by OCE for Ontario's Ministry of Government and Consumer Services, the \$2.9-million program enables educators to directly share challenges with the innovation system and work with companies to test early market interest and demonstrate innovative products and technologies in an education setting.

INTERNATIONAL

As more companies seek international partners or are created with their sights set on global markets, OCE provides the support and connections required to forge the strategic collaborations needed to enter world markets.



SUPPORTING BILATERAL RESEARCH

Launched in December 2016, the **Ontario-China Research and Innovation Fund (OCRIF)** supports scientific and technological collaboration projects between China and Ontario. Ontario Centres of Excellence (OCE) and China's Ministry of Science and Technology (MOST) will jointly invest up to \$2 million to support strategic bilateral research collaborations.

- Offered through a partnership with MOST, Ontario's Ministry of Research, Innovation and Science (MRIS) and OCE



BUILDING COMMERCIAL SUCCESS

Launched in December 2016, the **Ontario-Jiangsu Industrial Research and Development Program (OJIRDP)** supports joint industrial R&D projects focusing on the development of products or processes that lead to commercialization in global markets and commercial success and socio-economic benefits for both jurisdictions. Applicants can apply to OCE for up to \$150,000 in funding for bilateral R&D projects.

- Administered by OCE on behalf of the Ontario government, OJIRDP is a partnership between the Jiangsu Science and Technology Department (JSTD) and the Ontario Ministry of Research, Innovation and Science (MRIS)



STRENGTHENING TECH EXPERTISE

Launched in February 2017, the **Ontario-Israel Research Network Program – MAGNET (OIRNP-MAGNET)** supports bilateral collaboration to develop and demonstrate technological solutions that strengthen both Ontario and Israel's technological expertise and enhance competitiveness. In 2016-17, Ontario and Israel SME projects were focused on developing solutions that address cybersecurity needs identified by multinational, Ontario-based financial institutions.

- Managed by OCE and the Israel Innovation Authority through a partnership with Ontario's Ministry of Research, Innovation and Science (MRIS)



HEADING FOR CHINESE MARKETS

The **China Angels Mentorship Program (CAMP)** is a virtual incubation program that helps early-stage companies enter the Chinese market. A second cohort of 10 companies, announced in April 2016, travelled to Beijing in October and have executed investment term sheets valued at more than \$2 million. Applications for a third cohort opened in June 2017.

- A joint initiative of OCE, China Canada Angels Alliance (CCAA), River Capital, and Zhongguancun Haidian Science Park (Z-Park)

ACCELERATING THE GROWTH OF A COMPETITIVE DIGITAL ECONOMY

Focusing on high-impact technology platforms

Having built one of the world's most dynamic and supportive ecosystems for R&D and the commercialization of innovation, Ontario is now focusing on high-impact technology platforms that support the scale-up of firms, increase technology adoption, connect emerging tech firms and large anchor firms (supply and demand) and attract investors.

These include cognitive computing and artificial intelligence, autonomous and connected vehicles, 5G and next-generation high-speed smart networks, and cybersecurity. Empowering entrepreneurs and SMEs through these cutting-edge platforms will enable them to develop and export a new wave of creative products and services

in areas such as smart cities, connected and autonomous vehicles, fintech, and cybersecurity.

OCE is playing an instrumental role in delivering some of these transformative technologies on behalf of the Government of Ontario.



BUILDING ONTARIO'S GLOBAL COMPETITIVENESS IN THE AUTOMOTIVE AND TRANSPORTATION SECTOR



The **Autonomous Vehicle Innovation Network (AVIN)**, created by the Ontario government in partnership with OCE, will build on the economic potential of automated vehicles and further the ability of the province's transportation system to adapt to the technology (\$80 M).

This initiative is an extension of OCE's work in connected and automated vehicles to increase automotive exports. OCE has been supporting industry-academic collaborations in commercializing a wide range of creative new technologies to improve the 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.

Since 2015, our Connected Vehicle/ Automated Vehicle (CVAV) Program,

a partnership between OCE, Ontario's Ministry of Transportation and the Ministry of Economic Development and Growth, has funded 29 projects with the \$2.8 million committed by OCE and another \$7.4 million in partner leverage.

ENCOURAGING INNOVATION AND PRODUCTIVITY

Twenty-one innovative auto technology projects creating or retaining 371 jobs were funded in 2016-17 through the **Automotive Supplier Competitiveness Improvement Program (ASCIP)** and market demand for this program continues to grow. Offered by OCE in partnership with the Ontario government and the Automotive Parts Manufacturers' Association (APMA), ASCIP increases the sourcing capabilities of Ontario-based small- and medium-sized automotive suppliers, while encouraging competitiveness and productivity initiatives that build success in growing export markets.

Projects are eligible for up to \$100,000 in project funding to be matched by industry and contribute to the adoption of industry-leading information technology.



Helping SMEs access disruptive technologies that will drive their future growth and ensure global competitiveness

HELPING HIGH-POTENTIAL COMPANIES SCALE UP

IBM Innovation Incubator Project – SMEs are being provided with technological resources, artificial intelligence, physical space and expertise to scale their companies and access supercomputing technology and IBM's Watson platform, in partnership with OCE, IBM Canada and the SOSCIP Research Consortium (\$22.75 M in government funding).

Under the IBM Innovation Incubator Project, OCE has entered into agreements with five Ontario incubators (Invest Ottawa, MaRS, DMZ, Communitech and ventureLAB). To date, funding has been awarded for 22 demonstration projects and, under OCE's TalentEdge program, close to 100 internships and fellowships. Launched in February 2016, the initiative of the Ontario government, IBM and OCE (valued at \$54 million, including leverage) gives businesses access to programs and infrastructure, including IBM's leading cloud and cognitive technologies and design and business resources, to lower the cost of introducing emerging and enabling technologies to the global marketplace.

Innovation Incubator Hubs

The IBM Innovation Incubator Project now has five co-located innovation spaces across Ontario in addition to the IBM Innovation Space on Spadina Avenue in Toronto, all working to support SMEs develop market-leading and world-leading technology.

- The IBM Innovation Space – Markham Convergence Centre
- The IBM Innovation Incubator at Communitech Data Hub in Waterloo
- The IBM Innovation Incubator Project at Invest Ottawa
- The IBM Innovation Incubator Project at DMZ
- The IBM Innovation Incubator Project at MaRS



Ontario Centres of
Excellence
Where Next Happens



ACCELERATING THE GROWTH OF CYBERSECURITY

Under a pilot project with OCE in partnership with the Toronto Financial Services Alliance (TFSA), start-ups will be partnered with financial institutions to accelerate the growth of cybersecurity and fintech start-ups, and support adoption of emerging cybertechnologies by financial institutions (\$4 M).

OCE has kept a focus on fintech cybersecurity, joining the Toronto Financial Services Alliance (TFSA) in commissioning a 2016 report, which found that Ontario has the potential to assume a more dominant leadership role in cybersecurity given its existing strengths in financial services and technology. Subsequently, more than 200 experts from financial services and fintech companies, academia, and government gathered to exchange ideas and identify the potential for future collaborations in financial cybersecurity innovation. OCE and TFSA also recently held a partnering forum for the Cybersecurity Fintech Innovation Pilot Program (CFIPP), funded by Ontario's Ministry of Research, Innovation and Science (MRIS).

KICK-STARTING AND BUILDING COMPANIES AND CAREERS

CLA/OCEA:

Campus entrepreneurship growing steadily



Launched in 2014, the Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) programs have helped transform Ontario's youth entrepreneurship ecosystem across college and university campuses into one of the most innovative and collaborative in the world.

With the launch in 2016-17 of new CLA/OCEA activities at Sheridan College and St. Lawrence College, campus entrepreneurship activities are now available at every publicly funded post-secondary institution in Ontario.

A four-year, \$38-million initiative, CLA/OCEA is an important part of campus entrepreneurship as it supports mentorship, experiential learning opportunities and the growth of the Ontario innovation ecosystem through accelerators, incubators, and other entrepreneurship activities.

The CLA/OCEA network of campus entrepreneurship activities was recently recognized as a global best practice at the World Incubation Summit and at the International Conference on Business Incubation.

In 2016-17, the program created 3,094 jobs. Start-ups generated \$69.4 million in sales and raised \$143.4 million in follow-on investments.

- *Follow-on investments raised by start-ups in 2016-17 = \$143.4 million (75 per cent increase over previous year)*
- *Sales generated by start-ups in 2016-17 = \$69.4 million (24 per cent increase over previous year)*
- *Participants at events and seminars in 2016-17 = 134,809 (12 per cent increase over previous year)*



RIPPLE FARMS

Who says you can't grow food in the concrete jungle?

Last November, with support from Seneca College's HELIX OCEA program, Toronto-based **Ripple Farms** completed Canada's first urban-vertical farming unit at Evergreen Brick Works in Toronto.

By growing fresh greens, such as rainbow chard, lime basil, parsley, sorrel, mustard greens and edible flowers within six kilometres of the CN Tower, this social enterprise is tackling food security and educating youth on aquaponics one meal at a time, without requiring thousands of miles of shipping.

In January, Ripple Farms made its first sale to Chef Brad Long at Café Belong, on site at Evergreen Brick Works. With demand from restaurants for its fresh produce now exceeding capacity, it could be growing again soon.

GRYLLIES

Business is jumping at **Gryllies**, a Toronto-based provider of sustainable protein through cricket flour.

This past year, Gryllies launched in five grocery stores in Canada's largest city, including the Loblaws inside the iconic Maple Leaf Gardens at 60 Carlton Street. Gryllies also launched its e-commerce business and

brought on a sales partner to help the company break into the U.S. market.

In addition to its cricket-based pasta sauces, Gryllies is further developing its product line in conjunction with Niagara College.

Supported through the Dunin-Deshpande Queen's Innovation Centre (formerly Queen's Innovation



Connector), Gryllies is helping consumers eat healthier while reducing the environmental footprint of our diet.

OCE offers a wide range of programs aimed at helping students and youth gain entrepreneurship skills, build their own companies or gain valuable real-world, career kick-starting experience through internship and fellowship programs.

BRIDGIT

Kitchener-based **Bridgit** has constructed software to help take the headaches out of construction projects.



Supported by the University of Waterloo's Velocity CLA, the flagship Bridgit Closeout product is used to assign and track the many quality-related, communications and safety tasks on construction sites

as well as to automate subcontractor communications and create one-click reports.

In 2017, the company's growth took off. Bridgit recently launched its Android app and hired an EVP of Sales, who expanded the business into markets across the United States. You can now find Bridgit Closeout on construction sites from New York City to Seattle to Miami.

KEGSHOE

After going from zero to 65 brewery customers worldwide using its keg tracking software over the past year, Ottawa-based **Kegshoe's** beer mug is frothy and full.

Supported by the University of Ottawa's Startup Garage CLA, Kegshoe has tracked over 25,000 kegs and registered more than 400,000 scans. Kegshoe has secured a strong market position as a leading provider of keg tracking software to the beer industry.

Since Kegshoe started selling its software, the company has seen approximately 15 per cent month-over-month growth, and has built partnerships with BLEFA and Schaefer, the world's largest keg manufacturers, to help expand its market reach.

In the coming months, Kegshoe will open a round of seed financing to help expand and accelerate its growth.



EVELYNN BNS

Nicole Snobelen's passion for fashion and clothing technology is threading its way throughout her community.

Supported by Fanshawe College's Leap Junction CLA, Snobelen's London-based **Evelynn BNS** business uses only knitwear materials with no zippers, buttons, or snaps, making the handmade and designed clothes super-easy to put on and take off as well as comfortable to wear. In early 2017, Snobelen added a custom bridal line to her collection, which increased sales by 75 per cent.

Snobelen's creations have also given her a runway to give back. The Abby Fund, started through Evelynn BNS, raised \$15,000 in the last three years to help sick children in hospital get their very own dream dresses and superhero capes, which are custom-made by Snobelen and gifted to the children based on their own drawings.



BRAZE MOBILITY

With an aging population, Canada has thousands of new people facing mobility challenges every day.

To address this growing market need, **Braze Mobility** developed an add-on system to motorized and manual mobility devices that detects objects and helps avoid collisions.

Supported by the Impact Centre at the University of Toronto, Braze is motoring its way to success. In 2016-17, led by CEO and founder Dr. Pooja Viswanathan, Braze went directly to wheelchair users in Canada and the U.S. for their feedback as part of their beta program, presented their first demo of a working prototype, and filed their first U.S. provisional patent. More importantly, the U.S. Department of Veterans Affairs recently became a paying customer. There were 18.8 million veterans in the U.S. in 2015.

Braze Mobility was also a finalist in the AGE-WELL and Aging2.0 pitch competitions and participated in the Fierce Founders bootcamp hosted by Communitech.



SMARTSTART:**Helping start-ups transition to companies ready to scale**

In just three years, the SmartStart Seed Fund program has seen ever-growing demand and achieved impressive outcomes:

- More than 1,300 jobs created
- More than \$80 million in private-sector follow-on investment secured by client start-ups
- More than \$20 million in incremental sales revenues generated by client start-ups
- Close to \$23 million in private-sector co-investment

There has been a marked increase in the number of start-ups emerging from Ontario's campuses in recent years, with a year-over-year growth rate of 36 per cent.

OCE's SmartStart program continues to fill an important gap in the Ontario innovation ecosystem, providing early-stage companies with seed funding to build a business and access entrepreneurship training.

The program was initially a two-year pilot with support from the Federal Economic Development Agency for Southern Ontario (FedDev Ontario). Subsequently, it secured another \$18 million over four years in 2014, co-funded equally by Ontario's Ministry of Research, Innovation and Science (MRIS) and FedDev Ontario.

**A CONTINUUM OF ENTREPRENEURIAL SUCCESS**

OCE's entrepreneurship program suite serves as a valuable catchment and training ground for the province's entrepreneurial talent, offering a pipeline of graduated support and financing that culminates in high-potential start-ups and scale-ups, companies that are growing rapidly in revenues or employees and, with help to access talent, capital and first customers, are poised to be Ontario's next global market leaders.

The highest-potential firms graduate to Regional Innovation Centres (RICs) and OneEleven, Canada's premier hub for fast-growing start-ups, where they can access OCE programs such as Ontario's Small Business Innovation Challenge (SBIC), and TargetGHG to engage with early adopters and first customers.

GRADUATION

Feeder to RICs and angel networks/
scale-up activities

High-Potential Start-ups

The most promising young companies are eligible for seed financing under our SmartStart program, which bridges the gap between first customers and private investors. They also gain access to talent through our TalentEdge program. The most successful ventures graduate to Ontario's broader ecosystem, where they get support in accessing talent, capital and first customers through other OCE programs and the province's network of Regional Innovation Centres (RICs). Now growing rapidly in revenues or employees, these companies are poised to be Ontario's next global market leaders.

**CUSTOMER/
INVESTOR**

SmartStart for customers/
Investor validation

TALENT ACQUISITION
Hundreds of TalentEdge
Internships/Fellowships

SmartStart & TalentEdge

Each year, our Campus-Linked Accelerator (CLA) and On-Campus Entrepreneurship Activities (OCEA) programs reach hundreds of thousands of students and youth seeking hands-on entrepreneurship experience and help launch thousands of OCE-supported start-ups. Under this continuing support, more than 90 per cent of start-ups survive longer than two years, a significant increase over national and global averages.

ACCELERATION

Thousands of start-ups
assisted by CLAs/OCEAs

**EXPERIENTIAL
ENTREPRENEURSHIP**

Tens of thousands of
participants in events

OUTREACH AND AWARENESS

Hundreds of thousands of
youth touched by outreach

CLA/OCEA Programs



CONNECTING EVENT ORGANIZERS WITH THE BEST STAFF FOR LESS

While working at a top event staffing agency in Toronto, Eropa Stein noticed that many of its processes were inefficient and outdated. To revolutionize the industry, she created **Hyre**, an online marketplace that directly connects event organizers, such as hotels and caterers, with qualified event staff. By not hiring through an agency, event organizers can save up to 40 per cent on staffing costs and event staff can earn higher wages.

SmartStart funding helped Hyre improve its marketing and social media strategy and recruit event staff to join the platform. Over 20 leading hotel chains and catering companies are currently using Hyre for events in Toronto and Ottawa, including Westin, Delta, and Best Western Plus. The team is now raising a major funding round, which will help them expand across Canada and the U.S.



HELPING PATIENTS MAKE A SUCCESSFUL RECOVERY

A broken leg almost turned tragic for Zach Fisch when confusion during his recovery resulted in an infection that nearly took his leg. Along with Cory Blumenfeld, he co-founded **Dash MD** to ensure that hospitals can better equip patients to manage their aftercare before they leave the hospital. The Dash MD app provides patients with detailed instructions, reminders for follow-up care, and access to relevant post-treatment health-care services.

SmartStart funding helped the team revamp its back-end engineering, allowing for faster onboarding of clients. They also gained the expertise of a data analytics intern through OCE's TalentEdge program. The Dash MD app is now live in eight Ontario hospitals, including Markham Stouffville, Michael Garron Hospital and Niagara Health.



MAKING MENTAL HEALTH CARE MORE ACCESSIBLE

Chakameh Shafii, Saeed Zeinali and Babak Shahabi founded **TranQool** because they believe that high costs, busy schedules, and long waitlists should never prevent people from accessing quality mental health care. TranQool connects registered therapists with clients through a secure video platform they can access on multiple devices. Sessions cost less than in-person therapy and can be covered by insurance plans. It also provides greater flexibility by offering time slots outside of traditional office hours.

SmartStart funding in 2016-17 helped the TranQool team ramp up marketing efforts. OCE's VIP program also supported a project with Humber College to further develop the platform. TranQool's online therapy platform is currently helping 4,000 users in Ontario, and will soon be available in other provinces.



USING AI TO DETECT COGNITIVE CONDITIONS THROUGH SPEECH

Based on their award-winning research at U of T, Liam Kaufman, Frank Rudzicz, Maria Yancheva and Katie Fraser founded **WinterLight Labs** in 2015 to commercialize an innovative AI technology that can diagnose and track cognitive and mental conditions. The platform analyzes 400 variables in a person's speech and language – such as sound, pauses, repetition and word complexity – to detect different disorders and the degree of impairment. It is highly effective at detecting Alzheimer's and offers significant advantages over subjective and time-consuming paper-and-pencil tests.

SmartStart funding in 2016-17 helped the team conduct pilot studies with Revera, a leading operator of retirement living and long-term services for seniors. WinterLight Labs is continuing to work with OCE through the Health Technologies Fund (HTF).

**TALENTEdge:****Accessing the talent pipeline**

Under this four-year, \$17-million program, Ontario students and recent graduates across all disciplines are applying their skills to solve real-world industry problems and improve Ontario's global competitiveness.

The TalentEdge Internship and Fellowship programs drive substantive economic development and growth outcomes for the province. It brings new opportunities not only to university students and recent graduates, PhD graduates and post-doctoral fellows (PDFs), but also to industry, which benefits from a talent pipeline of highly skilled R&D personnel.

Interns and PDFs from academic institutions across the province have worked with companies of all sizes, from a variety of sectors.

As a proven program with a track record of success, TalentEdge is now being offered as a common stream across several strategic program areas that feature a talent component. This is another step forward in providing post-secondary students and recent graduates with experiential learning opportunities across multiple disciplines, and providing industry with access to up-and-coming talent.

Since TalentEdge was launched in February 2014, OCE has supported

887

Internships

193

Fellowships

Provincial commitment of \$14.3 million for these internships and fellowships has resulted in leverage of \$29.5 million from industry and the federal government for a total program investment of \$43.8 million

Leverage of**\$29.5**

Million

In three years of operation, 36 academic institutions and more than 450 companies have participated in at least one TalentEdge project

36

Academic Institutions

450+

Companies

TalentEdge has resulted in

2,304

Jobs

created or retained

TalentEdge has resulted in incremental sales revenues of

\$72.7

Million

407

Interns and Fellows

have subsequently been hired by participating companies

ADURO ENERGY



London-based **Aduro Energy** developed a technology that transforms corn distillers oil and other waste lipids into drop-in diesel and bio-jet fuel.

Helping fuel the company's success is Dr. Anil Jhawar, who was brought on board through OCE's TalentEdge program.

"Thanks to the TalentEdge, we expect Dr. Jhawar to be Aduro Energy's first employee under payroll in the coming months," says Ofer Vicus, CEO of Aduro Energy.

Dr. Jhawar, a post-doctoral fellow at Western University, plays a key role in leading the drop-in diesel project, planning and executing lab work that eventually led to a business relationship between Aduro Energy and Greenfield Global, a leading producer of corn-based bulk industrial alcohol, packaged alcohol and fuel ethanol.

Dr. Jhawar's efforts have resulted in a \$1-million project to build Aduro Energy's first industrial pilot.

SPEEDO FOODS & FLAVOURS

For Rohit Balakrishnan, the experience of being an intern at Cambridge-based **Speedo Foods & Flavours** was sweet.

Hired through OCE's TalentEdge program, the final-year undergraduate student at Wilfrid Laurier University created and maintained Speedo Foods & Flavours' online presence, including modernizing and updating the company website and deploying a content marketing and social media strategy.

Over a six-month period, the producer of everything from pastry, pie, and doughnut fillings to syrups, glazes and iced coffee bases had 22 times more web traffic than it had had previously, and requests for directions from Google and Google Maps also trended sharply upward.

In the intensely competitive flavour industry, there isn't much time to savour success, which meant the Speedo intern also conducted market research, ran web analytics and managed customer accounts.

Balakrishnan continued with Speedo on a part-time basis after his internship and recently accepted a job in analytics.



Supporting social entrepreneurs and enterprises

Under the Ontario Social Impact Voucher (OSIV) Program, 200 social impact vouchers have been deployed at a value of up to \$3,000 each to Ontario-based social entrepreneurs and enterprises through delivery organizations selected by OCE.

Launched in 2016 after a successful pilot, the program funds entrepreneurship skills training and knowledge-building opportunities, and helps voucher recipients expand into new markets and develop tools

to measure economic and social impact.

Nine delivery organizations were chosen to provide the business and educational programs that will help the province's social entrepreneurs and enterprises scale their businesses: 80-20 Growth Corporation (Kitchener), Centre for Innovative Social Enterprise Development (Ottawa), Centre for Social Innovation (Toronto), Community Innovation Lab (Oshawa), Conseil de la coopération de l'Ontario (Ottawa),



Impact Hub Ottawa (Ottawa), MaRS Centre for Impact Investing (Toronto), PARO Centre for Women's Enterprise (Thunder Bay), and the Schlegel Centre for Entrepreneurship and Social Innovation at Wilfrid Laurier University (Waterloo).



The Globe and Mail

Data visualization experts and computer scientists from two Ontario universities are helping one of Canada's biggest media companies leverage big data to succeed in today's ever-changing media landscape.

As technology has revolutionized how people consume the news, media outlets have begun adopting a "digital first" strategy to attract and retain both subscribers and advertising revenues. With this shift from print to digital, an accumulating wealth of data on how users interact with web and mobile news platforms presents an invaluable opportunity for media companies to better understand and meet audience needs.

Recognizing this opportunity, *The Globe and Mail* collaborated with longtime partners OCAD University and York University to develop an analytical tool set that helps drive editorial decision making. Supported by OCE's Voucher for Innovation and Productivity II (VIP II) program and NSERC CRD funding, they created the Sophi Heads-up Display, a visual analytics platform that provides insight into the performance of digital content. Understanding user navigation patterns in real time allows editors to see what content is popular but under-promoted, and helps editors make changes to the placement of articles on the website and determine what content should be placed behind a paywall. OCAD U's creative design and data visualization expertise provides editors with more nuanced and enhanced insights than were previously available using an intuitive interface.

In addition, York's computer scientists have been adding value to *The Globe's* analytical toolkit by working on Natural Language Processing algorithms that have been used for recommending stories to users and subsequently leveraged by the data science team to better predict the value of content.

The partners are now developing predictive analytics tools for advertising and pursuing other funding opportunities with OCE.

ROI

- Two researchers from the project were hired by *The Globe and Mail* on permanent or contract basis
- The Globe and Mail* is currently exploring opportunities to commercialize a generic version of its analytical platform and potentially license it to other publishers and e-commerce companies



Gordon Edall
Director
Globe Labs



Dr. Sara Diamond
President
OCAD University



Kate Withers
Business
Development
Manager
OCE

RETURN ON INNOVATION

ROI

- Customers doubled from 10 to 20 during Market Readiness Company Building (MRCB) phase
- Team grew from seven to 25 during Market Readiness Company Building (MRCB) phase



Abdul Rehman
Co-Founder
and CEO
SSIMWAVE



Prof. Zhou Wang
Co-Founder and
Chief Scientist
SSIMWAVE



Kai Zeng
Co-Founder
and CTO
SSIMWAVE



Dr. Ken Schultz
Senior Business
Development
Manager
OCE

SSIMWAVE

Waterloo-based start-up SSIMWAVE is revolutionizing video delivery and viewer experiences with its one-of-a-kind software that accurately measures human perception of video quality.

As consumers watch more video content than ever before, networks, studios and video distributors strive to provide the best viewing experience possible on multiple devices. But multiscreen, on-demand TV delivery increases their distribution costs, creating high demand for products that can help them produce high-quality images at lower data transfer rates.

With SSIMWAVE's SSIMPLUS line of software products, video distributors, networks and studios can accurately measure, control, and optimize live and file-based video for their viewers, delivering the best viewing experience while significantly reducing bandwidth needs and distribution costs. The technology takes into account video content properties, device and viewing conditions, and the way humans see to determine an overall score for the quality of a viewing experience as perceived by audiences.

SSIMPLUS features the newest iteration of Dr. Zhou Wang's groundbreaking structural similarity (SSIM) algorithm, now the industry standard for perceptual video quality metrics, and which earned him an Engineering Emmy Award. In 2013, Wang co-founded SSIMWAVE with fellow University of Waterloo researchers Kai Zeng and Abdul Rehman to commercialize a suite of software solutions for video quality measurement based on the structural similarity algorithm.

OCE supported the start-up in 2015 through the Market Readiness program, helping the team add sales positions. A subsequent Market Readiness project focused on scaling the company, helping them add executive and business development staff and sign several big-name customers. Now with over 20 customers in Canada, the U.S. and Europe, including Telestream, Telefónica, eBay, and AMD, the SSIMWAVE team has been growing rapidly and anticipates adding 10 more staff before the end of 2017.





DKR Manufacturing

Through an innovative wall system advanced with assistance from Cambrian College, a Sudbury-based company is helping mining companies improve safety for workers while increasing productivity.

Closing off underground mine tunnels after a section has been mined is an expensive and risky process, requiring the construction of barriers up to 10 metres wide to allow for the mined area to be filled in. To reduce the risk of harm for miners, mining companies ensure they stand at least six metres back from the section being closed off, but following this precaution greatly increases costs, impedes ongoing work at the mine, and still results in worker injuries from falling debris.

DKR Manufacturing developed an innovative wall system that uses extension poles to let miners install a custom-built wall from 20 feet away (pictured above at one-fifth of the actual size). Increasing distance from the construction zone ensures safety while avoiding the need to close off a section of the tunnel that could be used for continuing operations.

Seeking an easier and more efficient means of installing the wall, DKR Manufacturing collaborated with Cambrian College to create adjustable attachment points for the wall system. The two-year effort was supported by OCE's Voucher for Innovation and Productivity I (VIP I) program with co-funding from NSERC's Engage Grants for Colleges. Four third-year students from Cambrian's civil engineering, mining engineering and animation programs gained invaluable industry experience working on the project.

DKR Manufacturing sold and installed over a dozen wall systems to mining companies in the Sudbury region, including Glencore and Vale. The improved version of the wall system developed with the help of Cambrian College is expected to increase DKR sales throughout Ontario and the rest of Canada.

RETURN ON INNOVATION

ROI

- Company anticipates expanding its six-person team to meet growing demand for the wall system
- Revenues generated from the system could reach millions of dollars over the next few years



Angela Timony
President
DKR Manufacturing



Pat Timony
Product Developer
DKR Manufacturing



Samira Afrand
Business Development
Manager
OCE

ROI

- Projects doubling the seven-person team within the next two years
- Raised over 500,000 in VC funding



Neutun Labs

This Toronto start-up is leveraging wearable technology and artificial intelligence to help improve the lives of people with epilepsy.

About one in 100 Canadians has epilepsy. Although there is no cure, most people with epilepsy can control seizures through medication. The success of treatment depends heavily on how strictly patients follow treatment plans and can give their doctor accurate, detailed information about their seizures. But tracking important details can be challenging when symptoms can occur anywhere, and face-to-face time with doctors can be brief and infrequent.

Growing up with a mother with epilepsy inspired Neutun Labs co-founders Eric and Alexander Dolan to create a digital solution to help people manage the condition. Neutun Labs' Seizure Sync mobile app provides a simple way for people with epilepsy to log details about seizures on-the-go. By integrating with smart wearables, such as Apple or Pebble watches, the app can detect convulsive seizures as they happen and alert emergency contacts. It also reminds users which medications to take at the right time.

OCE's TalentEdge Internship Program helped Neutun Labs hire its first employee in 2015. SmartStart funding in early 2016 helped the company develop its technology, grow its user base and expand its partnerships with health organizations. GlobalStart assisted the team in focusing on business development in the U.S., and Market Readiness funding supported the company's growth at home.

Neutun Labs' success earned its co-founders a spot on Inc. Magazine's 30 Under 30 in 2016. Seizure Sync is now helping thousands of people with epilepsy around the world. With the help of another TalentEdge intern with expertise in artificial intelligence, the team is improving the platform to offer users more personalized insights. They are also exploring integration with additional wearable technologies and hope to develop similar apps for managing other conditions, such as mental illness.

Eric Dolan
Co-Founder
and CEO
Neutun Labs



Alex Dolan
Co-Founder
Neutun Labs



Rebecca Tran
Business
Development
Manager
OCE



POWER & WATER



Advanced Anaerobic Digestion



GE Water

An ongoing partnership between GE's Water & Process Technologies and the University of Guelph aims to offer cities a sustainable solution for wastewater treatment.

Municipalities across North America treat sewage sludge using a biological process called anaerobic digestion that breaks down biosolids, but the current infrastructure is inefficient. U.K. water utility, United Utilities developed advanced technology known as biological (enzymatic) hydrolysis, which was commercialized by Monsal Limited Biological hydrolysis can enable existing anaerobic digestion infrastructure to increase its treatment capacity by up to three times, and condition sludge entering the digester to yield 25 per cent more biogas, a valuable by-product that can be converted into renewable energy. In 2014, GE acquired Monsal to fill out its energy-neutral portfolio. Following acquisition, GE expanded an existing partnership with a University of Guelph research team to enhance the technology and adapt it for the North American market.

The advanced biological hydrolysis technology not only makes anaerobic digestion more efficient but also has the unique benefit of producing a pathogen-free Class A biosolid, which can be used as an alternative to synthetic fertilizers. With support from OCE's Voucher for Innovation and Productivity II (VIP II) program and the Southern Ontario Water Consortium's (SOWC) Advancing Water Technologies (AWT) program, the team developed a pilot unit demonstrating the technology at SOWC's facility in Guelph, which opened in January 2017.

The advanced biological hydrolysis technology is an important step toward realizing GE's goal of enabling energy-neutral wastewater treatment in North America and opens new opportunities for co-digestion of other organics such as food waste. Following the successful pilot, GE is pursuing partnerships with Ontario municipalities to implement a full-scale demonstration of the technology.

RETURN ON INNOVATION

ROI

- GE invested \$900,000, leveraging a \$500,000 AWT award, for further development of its advanced biological hydrolysis technology following the VIP project
- The development and commercialization of the technology resulted in 10 people being trained on anaerobic digestion



Michael Theodoulou
Senior Product Manager
Monsal Advanced Digestion Technology

Youngseck Hong
New Technology Research Lead
Monsal Advanced Digestion Technology



Dr. Sheng Chang
Associate Professor
School of Engineering,
University of Guelph



Padraic Foley
Business Development Manager
OCE



RETURN ON INNOVATION

ROI

- Company has raised \$624,500 in convertible note investment
- Added seven full-time positions
- Recurring revenues expected to reach seven figures by the end of 2017

Anshula Chowdhury
CEO
SAMETRICA



Rebecca Tran
Business
Development
Manager
OCE



SAMETRICA

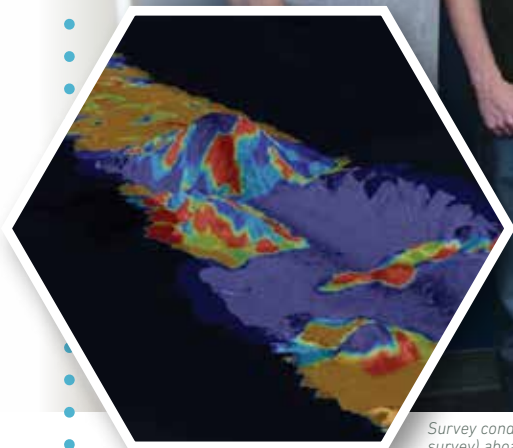
Toronto-based start-up SAMETRICA is helping organizations measure their social return on investment.

Enterprises and governments are under pressure to demonstrate their impacts on communities, but quantifying the social return on investments is difficult. Traditional methods of social impact reporting are labour intensive, often involving multiple data sources and spreadsheets for a single initiative.

SAMETRICA's Software-as-a-Service (SaaS) product helps organizations demonstrate their social value and supports informed decisions on how to invest and maximize the effects of their work. Instead of providing a static, one-time report on a single initiative, it streamlines and automates data collection, enabling analysis of relevant performance metrics across programs in real time to help clients understand the bigger picture of how their investments are making a difference.

SAMETRICA CEO Anshula Chowdhury founded the start-up in 2011 after an internship in Silicon Valley inspired her to bring the efficiency of impact reporting in the financial industry to social initiatives. OCE first supported SAMETRICA in 2014 through the SmartStart Seed Fund to help with early market testing and product development. The company was selected as a Social Enterprise Training Organization for the Ontario Social Impact Voucher (OSIV) Pilot Program to provide training on how to measure social impact.

In 2015-16, Market Readiness Customer Creation (MRCC) funding assisted the team as they started working with the public sector, resulting in a half-million-dollar contract with the federal government. A follow-up Market Readiness Company Building (MRCB) project helped them gain government clients at the provincial and municipal levels. SAMETRICA's clients include Status of Women Canada, Employment and Social Development Canada, the City of Toronto, and other public-sector agencies. The team is now expanding their customer base and growing the company.



Survey conducted between Guadeloupe and the Azores (cross-Atlantic sea bottom survey) aboard the French research vessel L'Atalante. The analysis seen here is an analysis of the sea bottom composition showing lava flow atop seamount.

Maritime Way Scientific

Ottawa-based Maritime Way Scientific is helping the Canadian military monitor Arctic seas with its breakthrough underwater communications technology.

Melting ice due to climate change is making Arctic waters more accessible, opening passageways that allow for greater activity and new economic opportunities. As international interest in northern waters increases, the Canadian government is making underwater surveillance a top defence priority in the Arctic.

A key goal of Defence Research and Development Canada's (DRDC) Arctic surveillance efforts is developing solutions to improve underwater acoustic communications. The Arctic environment poses unique challenges to traditional methods of transmitting signals underwater, as ice cover and other characteristics disrupt acoustic waves as they travel through water. Communications between modems can be difficult. Building an effective modem network underwater requires the ability to simulate the Arctic environment and predict the impact of these different factors on signal transmissions.

Under a contract awarded by DRDC, Maritime Way and computer scientists from Carleton University have developed software that models underwater acoustic communications in Arctic-specific conditions. This BELLTEX system allows DRDC to determine the optimal configuration and placement for underwater modems without expensive trial and error. A two-year Voucher for Innovation and Productivity I (VIP I) project funded by OCE supported the development of the technology, which also received NRC-IRAP funding.

DRDC recently tested BELLTEX in the Arctic. The project helped position Maritime Way as an internationally recognized expert in acoustics modelling and strengthened its ongoing relationships with DRDC and Lockheed Martin Canada, which made a major investment in the company's SPARTA (Sonar Performance – Acoustic Research – Tactical Analysis) technology.

RETURN ON INNOVATION

ROI

- Maritime Way expanded its team as a result of the project, adding one part-time and two full-time employees
- Project led to three additional contracts for Maritime Way, worth over \$150,000



Martin Taillefer
President and
Managing Director
Maritime Way



Michel Barbeau
Professor
Carleton
University



Dr. Philippa King
Senior Manager,
Digital Economy
Technologies
OCE

ROI

- Over 20 students have gained industry experience working on the projects
- Added three full-time positions and 12 contract positions
- Technology will create several new jobs at Greentec when implemented



Tony Perrotta
President and CEO
Greentec

Dr. Hamid Karbasi
NSERC Industrial
Research Chair,
Advanced Recycling
Technologies
Conestoga College



Tim Gibbins
Business
Development
Manager
OCE

Dr. Ken Schultz
Senior Business
Development
Manager
OCE



Greentec

This leading Cambridge-based processor of electronic waste (e-waste) has teamed up with a local college to develop intelligent robotic solutions for more efficient e-waste recycling.

With rapid advances in cellphone, computer and television technology, e-waste is the fastest-growing sector of solid waste, generating 40 to 50 million tons worldwide annually. But only 15 to 20 per cent of e-waste is currently recycled, meaning much of it ends up in landfills, where toxic materials can leach into the environment.

More efficient e-waste recycling solutions are urgently needed, so Greentec and a research team at Conestoga are taking up the challenge. Supported by OCE's Voucher for Innovation and Productivity II (VIP II) program, they developed a robotic cutting tool for dismantling and recycling Flat Panel Displays (FPDs) that is five times faster than manual processing. FPDs contain precious metals but also toxic lead and mercury, making the valuable metals difficult to extract. The new system enables operators to safely separate the toxic components and recover more material that can be sold and re-used.

In a follow-up VIP I project, the team developed a robotic solution for dismantling and recycling computer hard drives of various sizes while removing more valuable materials than the traditional method of shredding.

Greentec and Conestoga are continuing their collaboration in a new five-semester VIP II project to develop a fully automated robotic system for FPD recycling, using sophisticated machine learning algorithms to sort and disassemble FPDs of all models and types. This advance is expected to significantly increase processing capacity, profits and employee safety for Greentec and, once commercialized, benefit Ontario manufacturers and e-waste processors while greatly reducing e-waste in landfills.

AWARDING EXCELLENCE IN COLLABORATIVE INNOVATION AND ENTREPRENEURSHIP

OCE celebrates excellence in entrepreneurship and collaborative innovation, announcing the Martin Walmsley Award for Entrepreneurship and the Mind to Market Award annually each fall at OCE's Annual General Meeting. At OCE's Discovery Conference in May we held four competitions: Young Entrepreneurs, Make Your Pitch, Accessibility Innovation Showcase and Tech Pitch Competition, and Social Enterprise Zone and Pitch Competition.



MIND TO MARKET

Accelerated Systems Inc. (ASI) was announced the winner of OCE's Mind to Market Award (valued at \$25,000) for the company's collaboration with McMaster University. The OCE project developed unique drivetrain features that can be turned into market-leading products for battery and hybrid-based vehicles. As a result, ASI enhanced their motor technology and gained a competitive edge in the international electric machine market. The award, which recognizes an outstanding achievement in OCE-supported research collaboration and commercialization, was accepted on CEO Robert Lankin's behalf by his son, Erik Lankin, at OCE's 2016 Annual General Meeting.



SOCIAL ENTERPRISE PITCH COMPETITION

Ulula was announced as the winner among eight finalists at Discovery 2017's Social Enterprise Pitch Competition. The Toronto-based social enterprise received an award package valued at \$25,000. Ulula is a software and analytics provider for businesses seeking to measure and monitor human rights violations in global supply chains. The company leverages simple mobile technologies to turn worker voices into business intelligence, in turn creating more transparent and ethical supply chains.



MARTIN WALMSLEY

Chekema Prince, co-founder and Chief Scientific Officer of Waterloo-based **Pression**, won the \$25,000 Martin Walmsley Award for Entrepreneurship at OCE's 2016 Annual General Meeting. Pression delivers groundbreaking compression therapy for vascular disease treatment and increased muscle performance. Their technology, developed in partnership with Lockheed Martin, has led to increased patient compliance, better patient outcomes, and reduced health-care costs. The Martin Walmsley Award supports Ontario students' businesses that are founded on university-based research.



ACCESSIBILITY TECH PITCH COMPETITION

Five Ontario-based entrepreneurs took the stage at Discovery 2017's Accessibility Tech Pitch Competition. **MyndTec Inc.** emerged victorious, securing a \$20,000 award to further develop their accessibility solution. MyndTec's technology makes it possible for individuals with arm and hand paralysis to regain function following a stroke or spinal cord injury. The company's first product to market, MyndMove, rebuilds neural pathways using non-invasive functional electrical stimulation (FES), helping patients maximize independence by improving and recovering voluntary movement in their upper limbs.

YOUNG ENTREPRENEURS, MAKE YOUR PITCH

Meet the six winners of the Young Entrepreneurs, Make Your Pitch high-school competition. 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.



From left: Dr. Tom Corr, President and CEO, OCE; Michael J. Nobrega, Board Chair, OCE; Raymond Tran, LITLYTE; Ben Jacobs, Travale; Jeremy Chevalley, Moo Call and Clip; Alice Chen, Advena; Alessandra Kempson, Stitch It MMA; Anjana Somasundaram, Mūla; and the Hon. Reza Moridi, Minister of Research, Innovation and Science.

Stitch It MMA

Alessandra Kempson, Marymount Academy, Sudbury

Stitch It MMA is an in-house embroidery business at Marymount Academy, lowering the cost of school clothing by eliminating the need for a third-party apparel manufacturer. A portion of the company's proceeds will fund various extracurricular activities at Marymount Academy. Stitch It MMA leads by example, promoting creativity and entrepreneurship skills training while also providing opportunities for co-op placements.

Travale

Ben Jacobs, St. Marcellinus Secondary School, Mississauga

To-do lists are daunting on the best of days. Travale is a mobile app that connects busy homeowners with students seeking part-time work in their neighbourhoods. It is a solution that benefits both parties: students earn an income while maintaining a flexible schedule, while homeowners complete chores that would otherwise be left unattended.

LITLYTE

Raymond Tran, Hon. W.C. Kennedy Collegiate Institute, Windsor

LITLYTE is a business that creates beautiful, cost-efficient lamps with plastic spoons. Whether you're studying, reading, or decorating a room, the LITLYTE is the perfect lamp to fit in your home. The lights come in a variety of shades to fit your personality, from glow green to rose red.

Advena

Alice Chen, White Oaks Secondary School, Oakville

Finding a job is a priority for thousands of skilled Canadian immigrants. Advena is an online platform that centralizes opportunities and relevant information about employment for newcomers in the Greater Toronto Area. Users can access Advena's forums and resources for guidance while employers can post job openings and recruit from a pool of high-quality candidates.

Moo Call and Clip

Jeremy Chevalley, Académie de la Seigneurie, Ottawa

Tail trimming can reduce a cow's risk of infection, keeping them clean and healthy. Moo Call and Clip is a service that trims cow tails efficiently and inexpensively. The company also helps farmers stay compliant with the Dairy Farmers of Canada's proAction initiative, a framework that upholds expectations related to animal care, welfare, and environmental stewardship.

Mūla

Anjana Somasundaram, Don Mills Collegiate Institute, Scarborough

Financial education isn't always accessible for young Canadians. Mūla is a mobile app dedicated to helping high school students understand the three Fs – financial planning, financial literacy, and financial responsibility – in an entertaining and engaging way. The app's budgeting tool helps students save for big and small purchases – from concert tickets to birthday presents. Mūla also provides free personal finance learning materials and allows users to forecast future expenses.

OUR PARTNERING FORUMS AND EVENTS

Bringing industry, academia and entrepreneurs together to identify potential areas for collaboration across all sectors

Cybersecurity R&D Challenge April 6, 2016

This Partnering Forum provided an opportunity to learn more about OCE's Cybersecurity R&D Challenge and network with potential industry or academic partners aiming to develop innovative new technologies, products and services in cybersecurity.

CAMP 2016 Cohort October 2016

CCAA and OCE organized a two-week trip to Beijing for 10 selected Ontario companies who are interested in entering the Chinese market. These companies also received term sheets for seed financing from CCAA. The trip provided an overview of the Chinese market, introductions to key partners and manufacturers as well as access to other potential investors.

Advancing Education Partnering Forum November 24, 2016

This Partnering Forum provided insight into some of the challenges and opportunities in Ontario public education that may be addressed using innovative technologies, and allow educators and innovators to initiate collaborative partnerships able to apply for Advancing Education funding support.

TargetGHG Partnering Forum October 5, 2016

This event allowed representatives from large industries facing challenges associated with greenhouse gas emissions, companies offering potential technology solutions and other key industry stakeholders to share information about specific needs of industry and initiatives already underway at their companies.



REACH Innovation-Based Procurement Workshop February 23, 2017

This dynamic workshop provided an overview on Ontario's approach to innovation-based procurement and new methodologies.

CLA/OCEA Network Meeting (Windsor) October 13, 2016

This quarterly meeting brought together entrepreneurial institutions funded under the CLA and OCEA programs to increase entrepreneurial activity on Ontario's campuses. The event began with a tour of a Detroit incubator. Programming continued at the University of Windsor, followed by a tour of the EPICentre.



Small Business Innovation Challenge Partnering Forum March 1, 2017

High-potential, technology-driven small and medium-sized businesses – from start-ups to scale-ups – with up to 500 employees were invited to learn more about solving public-sector business challenges.



Finance Cybersecurity Partnering Forum March 8, 2017

This event brought together Ontario's top financial institutions, fintech and cybersecurity SMEs, and academic institutions to examine solution-based case studies on talent development and collaboration models related to fintech innovation.

Founder's Fest/Forum May 14, 2017

About 120 founders of SmartStart companies networked and attended training workshops prior to Discovery.

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



"Ontario has always been home to brilliant minds and cutting-edge technologies. Discovery itself is a testament to that fact. We can own this space. This is who we are. We can build an innovative and fair Ontario. But we can only do that if we combine our efforts."

Premier Wynne speaking to attendees at Discovery 2017



SAVE THE DATE
Discovery
APR 30 – MAY 1, 2018

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

Company Name	Name of Award
20/20 Armor	• 2016 Recipient, Spin Master Innovation Fund, Futurpreneur Canada
Accelerated Systems Inc.	• 2016 Winner, Mind to Market Award, Ontario Centres of Excellence
AccessNow	• 2016 National Startup Canada Resilient Entrepreneur Award
Aeryon Labs Inc.	• 2016 Named Technology Fast 50™, Deloitte • 2016 Finalist, EY Entrepreneur of the Year
Ambience Data	• 2016 Accepted into Communitech's 2016 Fierce Founders Bootcamp
ApoSys Technologies Inc.	• 2017 Winner, Best Technology Business, Unlock Your Big Idea Pitch Competition, RIC Centre
Atomwise	• 2017 Named to CB Insights' AI 100 List
Autom River Inc.	• 2016 Finalist, <i>Globe and Mail</i> Small Business Challenge
Axis Labs Inc.	• 2016 Semi-finalist, N100 Startup Competition • 2017 Winner, Motorized Product of the Year, TechHome Mark of Excellence Awards, CES
Axonify	• 2016 Best Advance in Unique Learning Technology and Best Advance in Learning Management Measurement/Business Impact Tools, Brandon Hall Group Gold Awards for Excellence • 2016 Named Technology Fast 50™, Deloitte
Bartesian Inc.	• 2017 Winner, Fundica Roadshow Trophy, Waterloo
Baylis Medical	• 2016 Winner, Global Trade, Business Excellence Awards, Toronto Region Board of Trade
Braze Mobility	• 2016 Accepted to Communitech's Fierce Founders Bootcamp
Brizi	• 2016 Accepted to Communitech's Fierce Founders Bootcamp • 2017 Winner, Sports Category, SXSW Accelerator Pitch Competition
Cast Connex	• 2016, Engineering Award of Excellence, CISC Annual Conference & Design Awards
Chalk.com	• 2016 Named one of five start-ups in the 2016-17 WISE Accelerator Program
CHAR Technologies Ltd.	• 2017 Winner, Clean50 Award, Delta Management Group
Chickapea Pasta	• 2016 Named one of 10 companies in Cohort III of District Ventures' Accelerator Program
Clearpath Robotics Inc.	• 2017 IEEE Robotics Award for Product Innovation • 2016 Named Technology Fast 50™, Deloitte
Coastline Market Inc.	• 2017 Named one of nine start-ups in Techstars' 2017 Seattle Cohort
Daniel Christian Tang	• 2017 Winner, Swarovski Award for Emerging Talent, Accessories, Canadian Arts & Fashion Awards

Company Name	Name of Award
Dash MD	• 2016 Named one of 82 companies reinventing the practice of medicine, CB Insights • 2016 Named to Annual Global Digital Health 100 List, <i>Journal of mHealth</i> • 2016 Winner of the Young Entrepreneur Award at Spark Centre's Ignite Competition
DateNight Babysitting Inc.	• 2016 Finalist, <i>Globe and Mail</i> Small Business Challenge
EnerMotion Inc.	• 2016 Bronze Winner, Re-Use and Reclamation, Edison Awards
Eve Medical	• 2016 Change Agent, <i>Canadian Business</i> • 2016 Named one of five technology trends to watch in women's health, <i>MIT Technology Review</i> • 2016 Winner, Genentech Quest Award to End Cervical Cancer • 2017 Winner, MaRS HealthKick Challenge
FarmLead	• 2016 Winner, Regional Premier's Award for Agri-Food Excellence, Ontario Ministry of Agriculture, Food, and Rural Affairs
Finn.ai	• 2016 Named one of Canada's 20 Most Innovative Technology Companies, Canadian Innovation Exchange (CIX) • 2016 Winner, Best of Show, FinovateAsia • 2017 Finalist, Miami Innovation Jam, Temenos
Flashfood Inc.	• 2016 1st Place Winner, IT'S A START Pitch Competition, Digifest 2017
Formarum	• 2016 Winner, 43North Business Idea Competition
GaN Systems Inc.	• 2017 Named to Global Cleantech Top 100 List, Cleantech Group
GeneYouIn Inc.	• 2017 Winner, MaRS HealthKick Challenge
GoWrench Auto	• 2017 Winner, Innovative Entrepreneur of the Year, Niagara Young Entrepreneur Awards
GreenMantra	• 2017 Named to Global Cleantech Top 100 List, Cleantech Group
GridCure	• 2016 Vendor to Watch Award, Rural Smart Grid Summit
Humi Inc.	• 2017 Dr. Rogers Prize, ResolveTO
iBIONICS	• 2017 Innovation Engineering & Technology Award, Bootstrap Capital • 2016 Startup Canada Innovation Award
InnerSpace	• 2016 Winner, Smart Homes & Buildings, Global Mobile Innovators Tournament
Law Scout Inc.	• 2017 Finalist, The Disruptor, Vision to Reality Innovator of the Year Award, PwC Canada
LegWorks	• 2017 Research and Development Medal, Ontario Professional Engineers Awards
Knote	• 2016 Winner, Velocity Fund Finals • 2017 2nd Place Winner, Queen's Entrepreneurs' Competition

Company Name	Name of Award
Knowledgehook	<ul style="list-style-type: none"> 2016 Winner, Google Game Changer Award 2016 Named Top Disruptor, BNN
Magnusmode	<ul style="list-style-type: none"> 2016 Named one of Toronto's 20 Most Brilliant Tech Innovators, <i>Toronto Life</i> 2016 National Startup Canada Woman Entrepreneurs' Award
MappedIn	<ul style="list-style-type: none"> 2016 Named one of Toronto's 20 Most Brilliant Tech Innovators, <i>Toronto Life</i> 2017 Young Entrepreneur of the Year, Greater Kitchener Waterloo Chamber of Commerce Awards
Medella Health	<ul style="list-style-type: none"> 2016 International Runner-Up, James Dyson Award 2016 Named one of Canada's 20 Most Innovative Technology Companies, Canadian Innovation Exchange (CIX) 2016 Winner, Best Disruptive Innovation, Unlock Your Big Idea Pitch Competition
MedStack	<ul style="list-style-type: none"> 2017 Highline BETA Prize, ResolveTO
Miovision Technologies Inc.	<ul style="list-style-type: none"> 2016 Finalist, EY Entrepreneur of the Year
MyEffect Inc.	<ul style="list-style-type: none"> 2016 Accepted to Communitech's Fierce Founders Bootcamp
MyndTec Inc.	<ul style="list-style-type: none"> 2017 Winner, Accessibility Tech Pitch Competition, OCE Discovery
Nix Pro Color Sensor	<ul style="list-style-type: none"> 2017 Winner, Red Dot Design Award 2016 Grand Prize Winner, LiON'S LAIR Competition 2016 Engineering Project of the Year, Innovative Project Category – The Ontario Society of Professional Engineers and Hamilton/Halton Engineering Week Committee
NONA Vegan Foods	<ul style="list-style-type: none"> 2016 Winner, Clearwater Entrepreneur of the Year Award, Futurpreneur 2016 Named one of the Top 25 Canadian Ventures in SHeEO's Radical Generosity Funding Initiative
NRSTor Inc.	<ul style="list-style-type: none"> 2017 Winner, Clean50 Award, Delta Management Group
Nulogy	<ul style="list-style-type: none"> 2017 Winner, IWLA Innovation Award
Nuts For Cheese	<ul style="list-style-type: none"> 2016 2nd Place Winner, LiON'S LAIR Competition
Oat & Mill Ltd.	<ul style="list-style-type: none"> 2016 Winner, Regional Premier's Award for Agri-Food Excellence, Ontario Ministry of Agriculture, Food and Rural Affairs
Pascal Press	<ul style="list-style-type: none"> 2017 Finalist, Techcellence Award, TechAlliance
Pathcore	<ul style="list-style-type: none"> 2017 1st Place Winner, RESI San Francisco Innovation Challenge
Payment Rails	<ul style="list-style-type: none"> 2017 People's Choice Award, Payments Canada FinTech Cup 2017 Finalist, Benzinger Fintech Awards 2016 Finalist, Ivey Venture Forum 2016 1st Place Winner, Finance Montreal Fintech Startup Pitch Competition
Pinch VR	<ul style="list-style-type: none"> 2016 Winner, GreenSky Capital Award, TieQuest Toronto

Company Name	Name of Award
PinPress	<ul style="list-style-type: none"> 2016 Winner, N100 Startup Competition
Pression Inc.	<ul style="list-style-type: none"> 2016 Accepted to Communitech's Fierce Founders Bootcamp 2016 Winner, Martin Walmsley Award, Ontario Centres of Excellence
RockMass Technologies	<ul style="list-style-type: none"> 2017 Winner, Queen's Innovation Connector Summer Initiative Venture Pitch Competition
Rover Parking	<ul style="list-style-type: none"> 2017 Finalist, The Disruptor, Vision to Reality Innovator of the Year Award, PwC Canada
Rumie Initiative	<ul style="list-style-type: none"> 2017 Winner, Google Impact Challenge
SAMETRICA	<ul style="list-style-type: none"> 2016 Named one of the Top 25 Canadian Ventures in SHeEO's Radical Generosity Funding Initiative
Sampler	<ul style="list-style-type: none"> 2016 Accepted into 48Hrs in the Valley, C100 2016 Named one of Toronto's 20 Most Brilliant Tech Innovators, <i>Toronto Life</i>
SilkStart	<ul style="list-style-type: none"> 2016 Named to Metabridge Top 15, Metabridge Conference
SkyWatch	<ul style="list-style-type: none"> 2016 3rd Place Winner, GTANISTART
Stathletes	<ul style="list-style-type: none"> 2016 Winner, Under 40, Business Excellence Awards, Toronto Region Board of Trade
Steadywear	<ul style="list-style-type: none"> 2017 Winner, ONtrepreneurs Tech Pitch Challenge, Ontario Brain Institute
Suncayr	<ul style="list-style-type: none"> 2016 Finalist, Synapse Life Science Competition 2016 2nd Place Winner, GTANISTART 2016 Winner, Best Investment-Ready Company, Unlock Your Big Idea Pitch Competition 2016 Grand Prize Winner, Queen's Entrepreneurs' Competition
Synaptive Medical	<ul style="list-style-type: none"> 2017 Life Science Company of the Year, Life Sciences Ontario
Top Hat	<ul style="list-style-type: none"> 2017 Named one of 11 Canadian Tech Companies to Watch in 2017, BetaKit 2016 Startup of the Year, Techvibes 2016 Named Technology Fast 50™, Deloitte
TranQool	<ul style="list-style-type: none"> 2016 Accepted to Communitech's Fierce Founders Bootcamp 2016 Change Agent, <i>Canadian Business</i> 2016 Recipient, Spin Master Innovation Fund, Futurpreneur Canada
TritonWear	<ul style="list-style-type: none"> 2016 Named one of Canada's 20 Most Innovative Technology Companies, Canadian Innovation Exchange (CIX)
Ulula	<ul style="list-style-type: none"> 2017 Winner, Social Enterprise Pitch Competition, OCE Discovery
Viafoura	<ul style="list-style-type: none"> 2017 Winner, Owlser Hot in Toronto Award
WinterLight Labs	<ul style="list-style-type: none"> 2016 Winner, AGE-WELL Pitch Competition
ZippyJamz	<ul style="list-style-type: none"> 2016 3rd Place Winner, LiON'S LAIR Competition

Ontario Centres of Excellence Inc. Governance

Board of Directors 2016-17



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• FINANCE AND AUDIT COMMITTEE (CHAIR)



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President and CEO
Ontario Centres of Excellence

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

John Marshall
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Division, Ministry of Economic Development and Growth,
Ministry of Research, Innovation and Science

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Strategic Initiatives

Anne Wettlaufer
Vice President, Marketing,
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Public Affairs



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



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CORPORATE DIRECTORS
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DE SOCIÉTÉS

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

Annual Report

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OCE at a glance

- Ontario Centres of Excellence (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.
- 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 across the province, OCE has a province-wide footprint with eleven offices located in Toronto, Mississauga, Waterloo, Kitchener, 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 has an ever-expanding network of provincial, national and international partnerships.
- OCE efforts converge on four key sector areas: advanced manufacturing; advanced health technologies; energy and environment; and information, communications and digital media, including high-performance computing.
- OCE is playing a key role in accelerating the growth of a globally competitive digital economy in Ontario.
- In 2016-17, OCE managed 741 new research, commercialization and talent projects.
- OCE invested \$51.1 million this year in Ontario's innovation ecosystem and leveraged an additional \$103.3 million, the majority of which comes from industry, for a total investment of \$154.4 million.
- The leverage that was attracted was 2.1 times the amount of funding we received from the government, enabling us to triple the amount of our government funding for investment in Ontario's innovation ecosystem.
- In 2016-17, 6,824 jobs were created or retained in industry as a direct result of OCE-funded projects and 1,819 start-ups were supported.
- 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 9.1 per cent in 2016-17.
- 60.9 per cent of additional investment leveraged by OCE comes from industry.
- This past year, 78 OCE-supported companies were recognized with national or international awards.
- OCE-managed entrepreneurial programs for students and youth have been established at every publicly funded post-secondary institution in Ontario.
- Named Canada's Best Trade Show in 2010, 2011, and 2016, Discovery brings together industry, academia, investors, government, students, young entrepreneurs and more to share ideas, network, invest and create business relationships that drive Ontario's economic growth and global competitiveness.
- This year's conference drew 3,600 attendees and 540 exhibitors. His Excellency the Right Honourable David Johnston, Governor General of Canada, and Premier Kathleen Wynne provided opening remarks followed by keynote speakers Jared Cohen, founder of Google Ideas and CEO of Jigsaw and Gina McCarthy, former head of the Environmental Protection Agency (EPA) under President Obama.
- One hundred and sixty-six young entrepreneurs' companies from OCE's Campus-Linked Accelerators, On-Campus Entrepreneurship Activities and SmartStart programs exhibited their innovations at Discovery in the Young Entrepreneur Zone.

FOR MORE INFORMATION, VISIT

oce-ontario.org



**Ontario Centres of
Excellence**

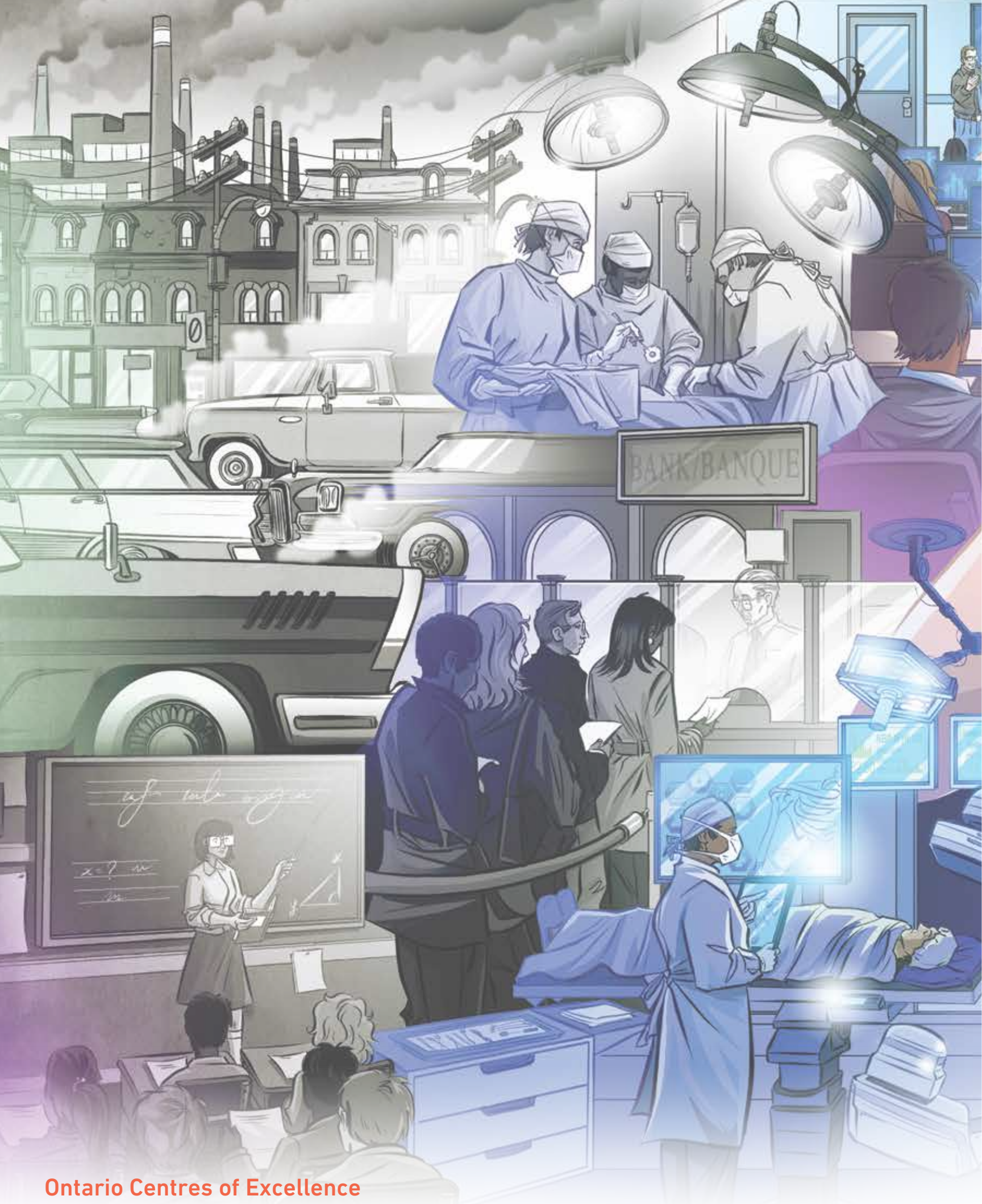
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Ontario Centres of Excellence is a member of

Ontario Network of Entrepreneurs





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