

# ROI

## RETURN ON INNOVATION

Ontario Centres of Excellence Inc.

ANNUAL REPORT 2010/2011



Ontario  
Centres of Excellence

Where Next Happens



Ontario Centres of Excellence (OCE) is funded by the Government of Ontario

# The OCE story

The Ontario Centres of Excellence (OCE) not-for-profit program was formally established in 1987 with seven independent centres that evolved and amalgamated into the Ontario Centres of Excellence Inc. in 2004.

Twenty-four years ago, the traditional economic foundation for the province, and for Canada, was shifting from a North American-focused and commodities-based economy to one that is globally oriented and knowledge-based.

Prior to the creation of OCE, there was limited connection between universities, colleges, research hospitals and industry. Consensus was that these academic and research institutions were producing quality research that was not being utilized to its full potential by industry.

OCE was designed to bridge that gap and create productive working partnerships between university and college research departments, research hospitals and Ontario industry.

Today, OCE drives the commercialization of cutting-edge research across strategic market sectors to build the economy of tomorrow and secure Ontario's and Canada's global competitiveness. OCE focuses on areas and projects that will deliver not only the greatest economic benefits but those that will have positive social impact in communities across the province.

OCE fosters the training and development of the next generation of innovators and entrepreneurs and is a key partner with Ontario's industry, universities, colleges, research hospitals, investors and governments.

Ontario Centres of Excellence covers four key areas of convergence – advanced manufacturing; advanced health technologies; energy and environment; and information, communication technologies and digital media. OCE is funded by the Government of Ontario, is a member of the Ontario Network of Excellence (ONE) and is a key partner in delivering Ontario's Innovation Agenda.

OCE, through its Centre for Commercialization of Research (CCR) – an initiative financially supported by the federal government – also acts as a catalyst that allows innovative businesses to grow and achieve sustainable, commercial success and global competitiveness.

**OCE acted for Vive Nano as honest brokers. They were excellent in identifying relevant sector-specific university research on one side and company needs on the other. On many occasions, they arranged and attended the initial meetings with prospective Ontario clients for our technology. This was critical to getting the company going.”**

**Keith Thomas, President and CEO, Vive Nano**





# Return on Innovation: Investing in Ontario's tomorrow

**The 2010–2011 fiscal year marks a year of firsts for Ontario Centres of Excellence (OCE). It marks my first year as Chair of the Board. More importantly it marked the first full year for OCE's new Industry Academic Collaboration Program (IACP). Last year OCE signed a framework agreement with the province defining the roles, responsibilities and accountability of Ontario Centres of Excellence within the Ontario Network of Excellence (ONE). I am pleased to report that OCE has fully operationalized the new program and made significant progress on a number of new initiatives which Dr. Tom Corr will detail in his report.**

A key goal of OCE has been to ensure that Ontario secures the best return on its investment in the work of our research institutions, while at the same time enhancing the benefits the province derives from its multi-billion dollar investment in higher education. OCE fully recognizes the value of the financial resources with which we are entrusted and works diligently to earn the best return on its investments, including requiring equal or greater investments by our industry partners.

The Ontario Government has recognized the importance of commercializing innovation and has been supportive of what OCE does and how crucial that will be to Ontario's future – recognition and support that is now mirrored by the Federal Government. Over the past few years innovation has become a major policy driver that is shaping Ontario's economy and will continue to do so for decades to come.

Ontario Centres of Excellence Inc. has long been viewed in Canada and internationally as an organization at the forefront of commercializing innovation. By making the critical connections with industry and engaging with our research institutions, OCE propels our best research from ideas to income where they can create jobs, generate revenue and investment and enhance our quality of life.

A number of industry stakeholders recently echoed this view in submissions to the *Federal Government's Expert Panel on Review of Federal Support to Research and Development*. The Canadian Manufacturers and Exporters Association cited OCE as one of two models of best practice in Canada in their submission identifying OCE's use of technology advisors, its project assessment model, IP protocol and a strong Board of Directors as being critical to its success.

Nowhere is the abundance of Ontario's innovation more evident than at Discovery. Last year's event was the largest in its history with over 2,600 attendees and 330 exhibitors. Named Best Trade Show in Canada for 2010, Discovery welcomed the inaugural *Ontario's Global Water Leadership Summit* which attracted over

300 world-renowned water innovators to discuss the future of innovation in water and to share best practices. Discovery 11 went 3D for the first time as it hosted *Ontario Projection: Advances in 3D*. OCE was a proud partner of both events.

OCE's Centre for Commercialization of Research (CCR) helped to advance global innovation and shine a spotlight on Ontario and Canada by hosting the inaugural *International Commercialization Forum*. The event attracted over 70 thought leaders in the commercialization of research space from around the world representing 18 countries and eight provinces. A key outcome of the Forum was the creation of the *International Commercialization Alliance* led by OCE's CCR. Over 47 organizations from 18 countries signed on to the Alliance.

OCE's achievements would not be possible without the exceptional counsel and guidance of our Board of Directors, who contribute their expertise and their time so generously to the governance of OCE. I would also like to acknowledge the efforts of the staff and management of OCE who, under the leadership of Dr. Tom Corr, get the job done. The dedication and commitment of all of the people at OCE has allowed this organization to embrace the many new and exciting programs and important initiatives currently underway.

On behalf of Ontario Centres of Excellence, I would like to applaud and recognize the companies, researchers, students and entrepreneurs we have had the privilege of working with over the past year. We celebrate your brilliant ideas, entrepreneurial spirit and innovative thinking in the pages of this year's Annual Report.

A handwritten signature in black ink that reads "Sean Conway". The signature is stylized and written in a cursive-like font.

**Sean Conway**, Chair, Board of Directors

# Letter from the President



## Return on Innovation: Delivering Results

This year's Annual Report theme, Return on Innovation, reflects OCE's focus on seeking breakthrough investments with the potential to leapfrog current technologies and techniques. We're investing in people and ideas with the potential to generate jobs.

All of our investments are made with industry partners who co-invest with us. They are committed to matching, and in most cases exceeding, the initial funding provided by OCE. This is an incredible value for Ontario companies, providing them with the opportunity to develop top-tier intellectual property and to work with talented researchers. Such collaborations form lasting partnerships that drive industry research, help create companies and help generate jobs and economic prosperity that benefit all Ontarians.

### Working as ONE

This past year OCE rolled out its new Industry Academic Collaboration Program (IACP) as part of the Ontario Network of Excellence (ONE). At the start of the year we reorganized and streamlined our operations to align with the ONE Network, taking a more regional focus. Preliminary feedback from our clients has been very positive.

Under OCE's new responsibility for managing IACP, OCE focused its business development activities more directly on the technology transfer offices in the colleges, universities and research hospitals, a natural "sweet spot" for OCE, given our strong roots in academia and our extensive track record. We also introduced Sector Advisory Boards to provide guidance on trends and developments in four key areas of convergence including Advanced Health Technologies; Energy and Environment; Advanced Manufacturing and Information, Communications Technologies and Digital Media.

### Investing in Tomorrow

In 2010–2011 OCE invested \$21.1 million in 477 projects that attracted \$40.7 million in investment from our industry partners. Our projects involved 47 colleges, universities and research hospitals. Our Special Energy Fund Program moved into its second phase focused on Smart Grid Technology. A Smart Grid Innovation Forum attended by over 130 industry and other key stakeholders will result in the funding of many exciting opportunities in the smart grid sector.

Our federally funded Centre for Commercialization of Research (CCR) had strong results in its second full year of operations delivering services to over 350 companies. One of OCE's strengths is acting as a broker – identifying and facilitating investment transactions. In this past year alone, OCE facilitated 30 NSERC ENGAGE grants totalling almost \$748,000 in funds for our clients.

### New Programs

New this year was the Experiential Learning Program, which was designed to help students across the province get the training and experience necessary to turn their ideas into market ready projects. Nine university and college based programs were awarded ELP funding. Also introduced this year was the Social Innovation Program designed to create and enhance partnerships between Ontario's not-for-profit and social enterprise sectors and industry and academic communities. A goal of this program is to advance innovative products, services and business models that meet social and environmental needs. Both programs have been enthusiastically received.

Reflecting on the past year we have achieved significant results. None of the success would have been realized without the hard work, dedication, commitment and passion of our talented employees at Ontario Centres of Excellence.

I also want to acknowledge the thoughtful direction, support and encouragement of Sean Conway, OCE's Board Chair and OCE's Board of Directors. Our board members are volunteers who contribute their expertise, time and passion – without financial compensation – for the benefit of our innovators and the Province.

Together, we are dedicated to ensuring Ontario is *Where Next Happens*.

A handwritten signature in black ink that reads "Tom D. Corr". The signature is fluid and cursive.

**Dr. Tom Corr**, President and CEO



# Delivering a Return on Innovation 2010–2011

**OCE co-invests in commercialization, technology transfer and talent development** projects in the segments of the economy that will drive Ontario's future prosperity and global competitiveness. These segments include energy and environment (including water); advanced manufacturing; advanced health technologies; and information, communications technologies and digital media.

## **Highlights 2010–2011**

- Invested **\$21.1 million** in 477 research, commercialization and talent projects
- Leveraged **\$40.7 million** in investment from industry partners
- Enhanced the knowledge and skills of **4,457** researchers, students and private sector employees
- Engaged **599** researchers and co-investigators
- Involved **47** colleges, universities and research hospitals in OCE projects
- Moved **1,358** individuals from OCE-funded projects to positions in industry, government and academia
- **19** patents granted with OCE support
- Submitted **111** patent applications with OCE support
- Established **16** new technology licences

**OCE delivers funding support and programs** including the commercialization of innovation in four key industry sectors:

Advanced Manufacturing; Advanced Health Technologies; Information, Communications Technologies and Digital Media; and Energy and Environment. Sector Advisory Boards were established over the past year to provide guidance on trends and developments.



**\$21.1** MILLION  
INVESTED IN 477 PROJECTS  
**\$40.7** AND LEVERAGED  
MILLION FROM  
INDUSTRY PARTNERS

Since 2004, **OCE** helped launch over 140 start-up companies that have attracted more than **\$849 million** in additional investments.

“OCE funding was critical in allowing us to meet early milestones that allowed us to get seed funding one year ago before we had any employees. We now have nine full time employees, four part time employees and many others actively engaged in our project.”

IACP Funding Recipient

# OCE connects the dots...

What makes OCE so effective in helping turn ideas into income is its business development capability, which starts with our people. Our business development specialists go out and ask industry what's needed. They also literally explore the academic halls and labs and ask researchers "What's new?"

More than just "new and improved," OCE seeks breakthrough investments with the potential to leapfrog current technologies and techniques. We are investing in people and ideas that have the potential to generate jobs. This is a natural sweet spot for OCE. It leverages our long-term strengths and relationships with industry, stakeholders in key sectors, the innovation space and the colleges, universities and research hospitals.

All of our investments are made with industry partners who are committed to matching, and in most cases exceeding, the initial funding provided by OCE. This is excellent value for Ontario companies, providing them with the opportunity to develop top-tier intellectual property and to work with talented researchers who have access to unparalleled networks, equipment and resources. These collaborations form lasting partnerships that drive industry research, empower companies and help generate jobs and economic prosperity that benefit all Ontarians.

With our focus on relationships, OCE has recently evolved into a broker of connections, identifying and facilitating investment transactions in which OCE has no direct financial stake. For example, in 2010–2011, OCE facilitated 30 NSERC ENGAGE grants totalling almost \$748,000 in funding for our clients.

OCE helps these new companies connect the dots, so they can concentrate on what they do best and ensure that the business basics are properly covered. These capabilities aren't always the strengths of researchers and their partners, but they are essential to achieving business success.

## OCE Engagement – Industry Academic Commercialization

**Partners**

- Industry, Businesses
- Colleges
- Universities
- Research Hospitals



**OCE**

- Business Development Specialist





- OCE Programs**

  - Industry Academic Collaboration Program
  - Special Energy Fund Program
  - Experiential Learning Program (new)
  - Social Innovation Program (new)
  - Centre for Commercialization of Research (CCR)  
- Other Programs**

  - Ontario Network of Excellence (ONE) programs
  - NSERC
- Network Engagement**

  - ONE including MaRS
  - Regional/Sector Innovation Centres (RICS and SICS)
- Sector Engagement**

  - Advanced Manufacturing
  - Advanced Health
- Potential Investors**

  - Angel Investors
- Export Readiness**

  - Ministry of Economic Development and Innovation (MEDI)
- Business Services**

  - Legal, Intellectual Property, Accounting, Mentorship Services



**OCE has been providing invaluable guidance. If we have a question that needs to be addressed quickly, we just pick up the phone and call one of our contacts there. They always point us to the right person.”**

**Olga Pawluczyk, President P&P Optica Inc.**

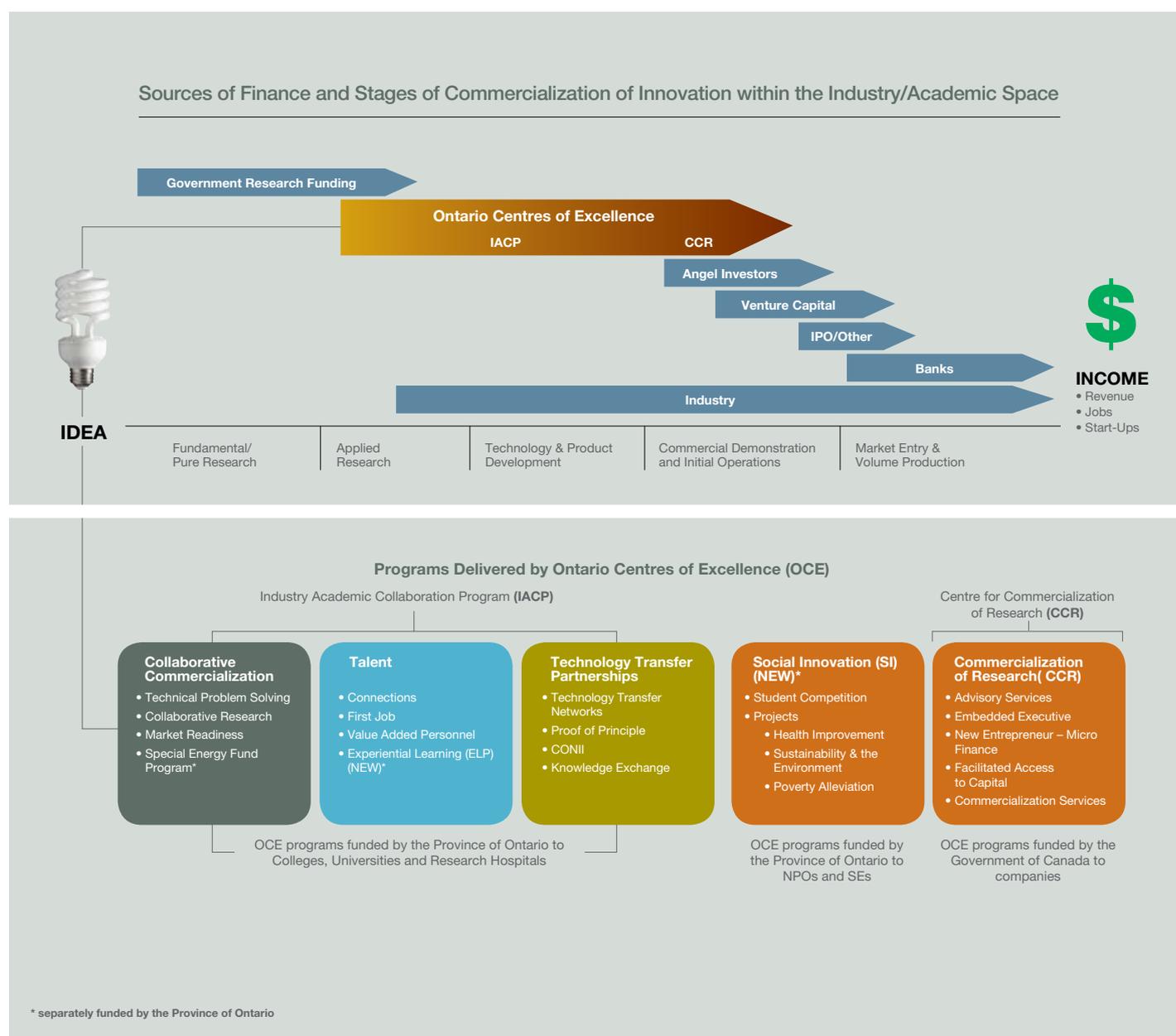
# Ontario Centres of Excellence (OCE) programs

**In June 2009**, the Ontario Government introduced the Ontario Network of Excellence (ONE) – Ontario’s revitalized, client-focused, province-wide innovation network.

As part of ONE, OCE was asked to administer the Industry Academic Collaboration Program (IACP). Funded by the Province of Ontario, IACP is designed to leverage the full capacity of Ontario’s research institutions in order to help technology-based companies create jobs and prosperity by commercializing Ontario-based research discoveries.

Under IACP, OCE offers new programs that are responsive, flexible and adaptive to change, and better serve researchers, entrepreneurs and high-potential companies who show strong promise for commercial success.

OCE’s Centre for Commercialization of Research (CCR), funded by the Government of Canada, further complements the IACP to span the full innovation continuum from research outcomes to sustainable market success.



# OCE programs

Within the Ontario Network of Excellence (ONE), OCE is responsible for the Industry Academic Collaboration Program (IACP) which launched in 2010–2011. The program consists of three components, Collaborative Commercialization, Talent and Technology Transfer Partnerships. OCE also manages the Special Energy Fund Program. New for fiscal 2011–2012 are OCE's Experiential Learning Program and Social Innovation Program. Rounding out OCE's suite of programs is the federally funded Centres for Commercialization of Research (CCR).

## Industry Academic Collaboration Program (IACP)



### Collaborative Commercialization

Collaborative Commercialization supports industry-academic collaboration on the commercialization of innovative ideas through four activities:

- 1) **Technical Problem Solving** provides a focus on select short-term projects and provides hands-on problem solving experience.
- 2) **Collaborative Research** is designed for projects with special technical research challenges, demonstrated market pull and high potential for commercialization.
- 3) **College Applied Research and Development** builds on the unique technical skills and competencies found in Ontario's colleges.
- 4) **Market Readiness** aids in moving promising technologies from an academic lab setting to a new spin-off company or licensing opportunity.

**"It is very difficult for smaller companies like us to find the right technology research partners. We would never have been able to tap into them if OCE had not directed us."**

**– Anand Srinivasan**  
Vice President, EION Inc.

### Talent

As the name suggests, the Talent program is focused on helping Ontario's college and university students develop entrepreneurial and business skills. The Talent program's three pillars include:

- 1) **Connections** which links students in engineering, science and technology programs to technology-based companies to work on real-world projects.
- 2) **Valued Added Personnel (VAP)** bridges the gap from the classroom to the workplace through entrepreneurship and business skills training.
- 3) **First Job** provides salary sharing for Ontario companies that hire new graduates for R&D positions.

**"HousAll has been very pleased with our participation in the OCE Connections program and will continue to participate. We hired two of the four team members we worked with."**

**– Miles Kennedy**  
Chairman, Founder and Chief Technical Officer, HousAll Systems Corporation

### Technology Transfer Partnerships

The Technology Transfer Partnerships Program is delivered through four program components that improve public research institution industry linkages and strengthen these linkages to their local economies. The four program components are **Technology Transfer Network**, **Institutional Proof-of-Principle**, **Colleges Ontario Network for Industry Innovation (CONII)** and **Knowledge Exchange**. The program also helps advance public research institution discoveries to market-ready discoveries and promote the exchange of knowledge and ideas between researchers and the wider economy to help the academic community better understand marketplace realities.

**"The Proof-of-Principle program elevated some great ideas emerging from the University of Toronto and its affiliated hospital into industry-ready technologies. Some technologies ended up becoming spin-out companies that MaRS Innovation recently incorporated."**

**– Dr. Rafi Hofstein**  
President and CEO MaRS Innovation

## Special Energy Fund Program

The Special Energy Fund Program was launched in 2007 to provide funding for research and development in groundbreaking clean energy technologies. Phase one of the program has focused on investments in projects, along with direct funding from industry partners, that will address critical issues concerning Ontario's energy sustainability. These issues include a demand for solar power as a viable, cost-effective alternative energy source; a need for programs and systems to help manage energy consumption; and an ability to access clean energy alternatives. Six ongoing projects are investigating solar, hydrogen and energy conservation, and demand management technologies that hold promise in bringing about transformative advances. Phase two of the program launched in 2011 with a focus on smart-grid technologies. A smart-grid innovation forum attended by over 130 industry and other key stakeholders was held in April 2011. Expressions of Interest were called in May 2011 and projects will be announced in late fall 2011.

**“The OCE Special Energy Fund Program was instrumental in helping us develop pioneering technologies for the integration of photovoltaic (PV) solar farms into Ontario’s electricity transmission and distribution networks.”**

– Dr. Rajiv Varma  
Associate Professor,  
University of Western Ontario

## Experiential Learning Program (New for 2011)

OCE's Experiential Learning Program (ELP), new for fiscal 2011–2012, is designed to help students across Ontario get the training and experience they need to turn their ideas into market-ready products and services, by learning and doing. The program targets students with a wide variety of educational backgrounds and provides them with the real-world experience they will need to establish new businesses and become the employers of tomorrow.

To identify program delivery partners, OCE issued a call for proposals and, following a rigorous review process, awarded ELP funding to nine programs representing 12 Ontario colleges and universities.

**“The Experiential Learning Program will allow the University of Windsor to introduce the Business of Innovation Program providing business and legal support to young entrepreneurs engaged in innovative and intellectual property ventures.”**

– Myra J. Tawfik  
Acting Dean and Professor, Faculty of Law,  
University of Windsor

## Social Innovation Program (New for 2011)

New for fiscal 2011–2012, OCE's Social Innovation Program is about new ideas, and products and processes that address unmet needs, with two principal objectives: creating and enhancing partnerships between Ontario's not-for-profit (NPO), social enterprise (SE) sectors and industry and academic communities; advancing innovative products, services and business models that meet social and environmental needs.

NPOs and SEs will benefit by developing partnerships with the industry and academic communities and accessing highly skilled expertise and leading-edge research and technologies. Companies will benefit by tapping into the NPO and SE networks to develop new products and services and to access socially and environmentally progressive markets.

OCE's Social Innovation Program has two components. The first is a partnership challenge targeting collaborative projects in health improvement, sustainability and the environment and the alleviation of poverty. The second is a social innovation student competition designed to launch the next generation of social entrepreneurs. The Social Innovation Program is supported by three Ontario ministries: Economic Development and Innovation, Citizenship and Immigration and Children and Youth Services.

**“We have come away with an unexpected business partner and a solid community/academic connection and will be submitting a proposal with the former.”**

– Participant  
OCE Social Innovation Partnership  
Forum in Health Improvement

## Centre for Commercialization of Research (CCR)

OCE's Centre for Commercialization of Research (CCR) is funded by Canada's federal government and provides business services and funding to support the growth of early-stage companies whose products or technologies have been developed by publicly funded Canadian colleges, universities and research hospitals. Often, success requires multiple services. CCR's suite of services encompasses business advisory services, commercialization resources, embedded executives, micro-finance support that gives the young entrepreneur and company just enough capital to get off the ground as well as advice and assistance developing the best financing options available, including introductions to investors and investment syndication.



**“OCE's Centre for Commercialization of Research helped us expand our executive team and was a key resource in helping us commercialize our product.”**

– Julian White  
CEO and Founder, Seregon Solutions Inc.

# Working with industry

## Maintaining a competitive edge through OCE-backed R&D

OCE works frequently with established companies – large and small – to identify R&D projects to be completed with partners in the academic community – colleges, universities and research hospitals – to help our clients develop innovative new technologies and products for world markets.

### 3M

Advanced capabilities and proximity to Ontario's automotive sector attracted global science and technology company 3M to collaborate with OCE and the University of Waterloo and McMaster University in developing new product applications for their films and adhesives. These new applications could potentially transform automotive manufacturing.

At McMaster, students led by Dr. Michael Thompson and Dr. Mukesh Jain are using innovative processes and test conditions to develop a next generation of 3M films that are more malleable, so they can be applied to more components, upstream in the manufacturing process. At Waterloo, Dr. Duane Cronin's team is using the computer to simulate crash tests to assess the strength and safety of automobiles assembled using 3M adhesives instead of heavier, conventional welds and fasteners, for potential weight reductions and fuel savings.



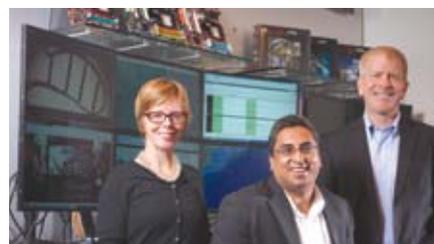
#### RETURN ON INNOVATION

- Advanced technology development in Ontario
- 3M investment in Ontario universities
- 3M collaboration with students at McMaster University and University of Waterloo

### AMD

AMD, a global semiconductor design innovator with sales of US\$6.5 billion in 2010, developed a new-generation Accelerated Processing Unit (APU), based on its "Fusion" architecture. The APU combines the central and graphics processing units, leveraging the design strengths of each to enhance the performance of PCs, game consoles and other high definition applications.

Working with AMD, OCE provided a turnkey solution to leverage the technology in the research community by sponsoring academic seminars and workshops that led to a call for papers. The result: seven funded R&D projects at Ontario universities, designed to demonstrate the new processor's capabilities. The projects are scheduled to wrap up in late 2011, following which OCE will stage a technology showcase for the researchers to present their results.



#### RETURN ON INNOVATION

- Increased capability
- Increased engagement with Ontario's academic community
- Regional job creation potential

### Neptec

Ottawa-based Neptec specializes in the development, implementation and operation of intelligent 3D-machine vision systems that were initially developed for the space industry. A prime contractor for NASA since 1995, Neptec has delivered space-certified systems for three NASA programs and 40-plus space shuttle missions. Neptec has received multiple supplier awards from NASA, most recently in February 2011, when it became the first non-U.S. company to win the George M. Low Award, NASA's premier honour for quality and performance.

Neptec introduced a program to diversify its business and apply its technologies in other areas. To assist Neptec, OCE organized three R&D symposiums connecting the company with over 30 professors from universities across Ontario plus invited industrial and government organizations. The ensuing collaborations resulted in the development of "3Di", a core 3D data collection and processing technology that addresses critical challenges in new markets, including energy, mining, and transportation.



#### RETURN ON INNOVATION

- Neptec entered a new market (security)
- New academic and industry collaborations

# Working with academia

**OCE works directly with researchers in Ontario's colleges, universities and research hospitals to identify innovations with commercial potential and pairs those researchers and ideas with partners in industry who can provide resources to drive commercialization and, ultimately, income-generating sales.**



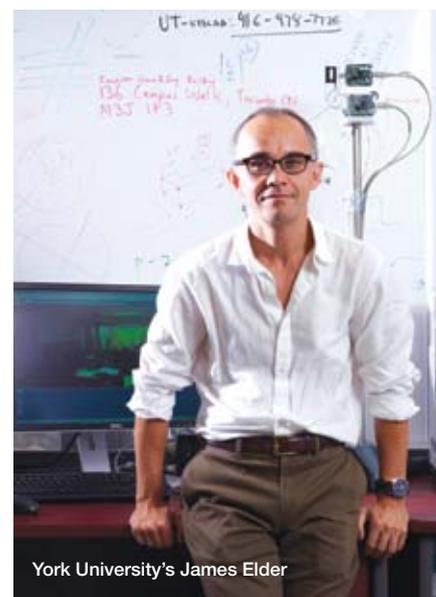
OCE focuses on commercializing innovations originating in Ontario's colleges, universities and research hospitals alongside industry partners. To learn how new ideas transition from the lab to the marketplace, consider professor James Elder at York University – who specializes in how people see things – and whose work has resulted in multiple new companies and commercial products.

Elder's involvement with OCE began 14 years ago, when OCE partnered him with CAE Electronics, a leader in aircraft visual simulation, to develop an Enhanced and Synthetic Vision System (ESVS) for search and rescue pilots flying in poor visibility. The partnership also resulted in product improvements and other new products for CAE. Elder's work has received commercialization support from OCE throughout this period as well as support from federal government programs.

From this early success, Elder's research followed separate paths – the first replacing the synthetic imagery in the ESVS with real satellite imagery, and the second applying the airborne technology to ground-based systems.

These development paths have since led directly to the creation of new products, such as highly computational digital signal processing and commercial image analysis for Array Systems Computing Inc.; as well as new business ventures, such as Aeryon Labs Inc. (small unmanned aerial vehicle systems for aerial sensing); Miovision Technologies (video-based automated traffic data gathering); and Clearpath Robotics (unmanned vehicle solutions for industrial R&D), the latter two of which are featured in this annual report.

Elder explained that OCE brings together academic and industry-based researchers to create value in multiple strategies, such as introductions and its annual "big tent" Discovery event that enables participants to renew and extend established relationships and to build new ones. OCE also facilitated access to other programs including federal programs, which coupled with OCE's assistance, provided more opportunities for commercialization.



York University's James Elder

#### RETURN ON INNOVATION

- Helped create new business ventures including Miovision, Clearpath Robotics and Aeryon Labs Inc.
- Research commercialization led to creation of more than 100 new jobs
- Potential to double this count in a few years

**The financial support OCE provides is important," says Elder, "OCE's ability to bring together industry-based researchers adds real value to all our commercialization efforts."**

**Professor James Elder, York University**



Richard Worsfold (left), OCE Business Development Director and Professor David Clausi (right) from the University of Waterloo, watch Kurtis McBride, CEO of Miovision Technologies, illustrate the latest version of the company's Scout video data collection unit.

SUCCESS STORY  
COMMERCIALIZATION

## Miovision

# More traffic data, more accurate, lower cost



RETURN ON INNOVATION

Kurtis McBride thought, “There has to be a better way to collect traffic data than having someone sit in a lawn chair for hours, manually counting cars passing through intersections.” That insight, based on his own summer work experience, provided the kernel of a master’s degree thesis for the University of Waterloo and the spark to create Miovision.

Miovision develops hardware and software solutions that automate the traffic data-gathering process, thereby reducing the costs of data collection and analysis as well as enhancing its accuracy – which responds to the cost-containment pressures on governments and their consultants. As a result, Miovision now boasts more than 160 customers in 19 countries on five continents.

McBride, with two co-founders, had the insight to team low-definition video camera technology with sophisticated high-definition image processing tools. Customers can position Miovision data-gathering cameras near roadways, wait for the traffic to pass and the data to be gathered, retrieve the camera, and then upload the raw data to Miovision’s online software for processing, analysis and reporting. The final output is used by traffic engineers to understand traffic flows and to design new routes or adjust signal timings and other system components to ease congestion.

OCE has worked with McBride for the past five years and invested \$115,000. In 2010, Miovision was presented with OCE’s Mind-to-Market award for the best commercialization of collaborative research and development between the academic community and industry.

Proof of this thriving collaboration can still be found in the work of Dr. David Clausi, a professor of Systems Design Engineering at University of Waterloo and a collaborative partner of Dr. James Elder at York University. Dr. Clausi, who taught McBride when he was a student notes, “Today, Miovision and my research group have a nice synergy. We’re both interested in the same things and Miovision helps support some of our research projects.”

Miovision has twice expanded its original product – first to accommodate and capture traffic data at roundabouts and again to obtain data from straight road segments. Looking ahead, the company is partnering with Aeryon Labs Inc. (another OCE-supported company) to install its video systems aboard Aeryon’s unmanned aerial vehicles, for airborne data-gathering assignments.

**“We’ve worked with OCE for five years, and they have been instrumental in helping Miovision become a viable business. They’ve been involved in helping us bring in key hires in the areas of computer vision and product marketing.”**

**Kurtis McBride, CEO, Miovision Technologies Inc.**

(Left to right): Leanne Gelsthorpe, OCE Business Development Manager with Matthew Rendall, Chief Executive Officer of Clearpath Robotics and John Daly, Postdoctoral Fellow in Mechanical and Mechatronics Engineering at the University of Waterloo.



SUCCESS STORY  
COMMERCIALIZATION

## Clearpath Robotics

# Multi-industry robotic solutions

### RETURN ON INNOVATION

Clearpath Robotics specializes in the design and manufacturing of unmanned vehicle solutions for academic, industrial, and military R&D applications. For Matt Rendall, CEO and co-founder, the path to successful commercialization depended on recognizing that the core business was less about creating a single product and more about satisfying university engineering departments' needs for basic devices they could immediately put to work.

"They all wanted something different, there was no single solution," Rendall says referring to university engineering departments. "So, we created a bare-bones machine that could be adapted easily to each customer's needs. That didn't exist in the marketplace, so our early offerings were successful quickly, and that created cash flow to continue product development and market definition."

Clearpath Robotics scored early with customers including M.I.T. and the University of Waterloo (where Rendall earned a B.A.Sc. in the inaugural mechatronics engineering program and a master's of business, entrepreneurship, and technology degree), among others. Quickly responding to customer feedback on early products also enabled Clearpath Robotics to improve the feature set, enhance product value and shorten its time-to-revenue.

OCE supported Clearpath's growth through its Market Readiness and Technical Problem Solving programs to help the company evaluate the potential market size and identify its best opportunities. OCE's CCR provided additional support through its Embedded Executive Program.

Clearpath Robotics has also employed customer feedback to evolve the products' feature set for specific applications. Its new Kingfisher is an unmanned surface vehicle with applications ranging from environmental sampling to harbour security. It has a potential market of up to \$3 billion.

"With growing revenues and secure intellectual property, Clearpath Robotics is positioned to expand into new vertical markets," says Rendall. "Demand for the Kingfisher results purely from market pull rather than our marketing push, so we're convinced there's substantial international demand for a full range of products and dramatic growth."

**Beyond its funding support, OCE has provided invaluable assistance in understanding our market and how best to meet its needs."**

**Matt Rendall, CEO, Clearpath Robotics Inc.**



(Left to right): Mark Hoddenbagh, Director, Applied Research and Innovation, Algonquin College with Aydin Mirzaee (l) and Eli Fathi (r), Co-Chief Executive Officers at Chide.it, John Omura, Project Manager at Algonquin College's Design Centre and Edmund Strange, Professor/Coordinator of the Computer Studies Department, also at Algonquin College.

SUCCESS STORY  
COMMERCIALIZATION

**Chide.it**

## Chide.it streamlines data gathering and analysis

### RETURN ON INNOVATION

Over the past three years  
are new graduates with  
either university or college  
degrees

Chide.it develops software to aid organizations in gathering feedback from constituents and in analyzing that data in order to help them make business-critical decisions. Chide.it is best known to its customers (hundreds of enterprise clients, colleges and universities, and thousands of individual users in over 40 countries) through two online information gathering and analysis products, ReviewRoom and Fluidsurveys.

ReviewRoom is a tool for submitting and reviewing applications online. It is suited for evaluating award nominations, business plan competitions, conference registrations, as well as scholarship and grant applications. Typically, submissions must be received by a given date and assembled and forwarded to a judging panel for review and decision-making. ReviewRoom simplifies the tracking of submissions, paper-handling logistics and online results tabulation, while providing a complete audit trail.

Fluidsurveys is an online tool for creating online surveys, including data gathering and analysis. The software is suited to market and educational research, as well as customer and employee satisfaction surveys. Fluidsurveys' online drag-and-drop editor enables the user to create surveys in minutes and deploy them by email, web link, pop-up, kiosk and mobile channels, complete with the user branding.

OCE helped spin out Chide.it with \$85,000 in funding in a partnership with Algonquin College that ended in early 2010.

Chide.it has been generating revenue from its inception, both online and through direct and franchised sales in North America and Europe, including sales to a number of Fortune 500 companies.

OCE's further investment of \$65,000 in Market Readiness funding enabled Chide.it to double its monthly revenues within three months and the company expects to triple its year-over-year revenues again this year.

**OCE has had a key role since our birth and it's more than just the financial aspect. OCE has also helped us gain exposure and connections with potential customers which are of critical importance to a growing company in our space."**

Eli Fathi, Co-CEO, Chide.it Inc.



Steven McArdle, President of 4DM Inc.

SUCCESS STORY  
COMMERCIALIZATION

## 4DM – Advanced Geospatial IT Solutions

### Where are they now?

#### RETURN ON INNOVATION

Steve McArdle became very interested in remote sensing in 2000, when the Institute of Space and Terrestrial Science (which later became part of OCE Inc.) acquired a hyperspectral imager. This state-of-the-art technology also came with access to the accomplished professors at York and an advanced earth observation laboratory. McArdle had a vision to combine remote sensing technology with mapping applications to create visual solutions for communicating location-based information.

Through OCE, McArdle met Richard Worsfold, Business Development Director. Worsfold became a mentor, supporting McArdle's research and guiding the students hired for his projects. Worsfold also provided McArdle with key contacts in industry, government and academia, who supported him in establishing his own company, 4DM, in 2006. The four Ds in the company name represent the four dimensions of latitude, longitude, elevation, and time, while the four Ms represent measuring, mapping, monitoring and modelling.

Today, 4DM is an accomplished geospatial IT engineering and consulting firm employing 17 highly skilled personnel, including engineers, and people with PhDs and master's degrees. 4DM uses satellite imagery to create multifunctional schematics and maps for advanced engineering and asset monitoring. 4DM's current clients and projects include Ontario Power Generation on modelling for hypothetical hydroelectric dam-failure analyses and environmental assessments; the International Atomic Energy Agency on safeguards for materials management, thermal discharge and structural change detection; and Canada's National Research Council on predictive models for winter microclimates and snowdrifts on Ontario highways. In all, 4DM's expertise has been applied to over 80 projects for U.S., Canadian and European clients.

**“4DM was built in part on the relationships I developed with people involved with OCE. Those relationships provided insight into how I could apply the science of remote sensing to develop innovative, real-world commercial applications and create a successful enterprise.”**

Steven McArdle, President, 4DM Inc.

# Technology Transfer Partnerships

In 2010, Ontario Centres of Excellence (OCE) took over the management of Technology Transfer Partnerships (TTP) as part of the new Industry Academic Collaboration Program (IACP). The TTP is comprised of the four Technology Transfer Networks representing many of Ontario's universities and the Colleges Network for Industry Innovation (CONII).

Over the past year OCE has worked closely with the TTPs to help foster best practices in technology transfer and further efforts to move innovative technologies along the commercialization path with the end goal of developing one of the best technology transfer systems in the world.

The following are examples of successes within Technology Transfer Partnerships:

## Rideau Commercialization Network (RCN) CentreLine

Working closely with the University of Ottawa and the Ottawa Technology Transfer Network (OTTN), Windsor-based company CenterLine is developing a cold-spray delivery product that it hopes will revolutionize the manufacturing industry. The patented shockwave technology, developed at the University of Ottawa and licensed to CenterLine, is designed to eliminate the need for heat used in traditional sprays to repair, restore and refurbish industrial equipment. The new technology is expected to streamline existing manufacturing processes, reduce scrap, and improve recycling and refurbishing activities. In June 2010, two Ontario graduate students working with CenterLine presented their research to date at an international cold-spray-technology symposium and won first and second place.



## PARTEQ Innovations (now part of RCN) Switchable Solutions

PARTEQ Innovations' GreenCentre Canada formed Switchable Solutions Inc. in 2011 to commercialize an environmentally friendly solvent system that can convert used plastics products into market-ready raw materials. The company's Switchable Hydrophilicity Solvent system, developed from research at Queen's University, is a cost-effective alternative to conventional mechanical recycling systems, and is a highly effective means of cleaning soiled plastic packaging. The system will be used to divert polyethylene motor oil containers from landfill as well as polystyrene food packaging, coffee cups and cushion packing materials. The technology can also extract bitumen from oil sands with minimal water and energy consumption, eliminating the need for tailing ponds. Five North American processing plants are scheduled to be built over the next five years. The first plant will be in Mississauga, Ontario.



## Ontario Partnership for Innovation and Commercialization (OPIC) Essay-Zone

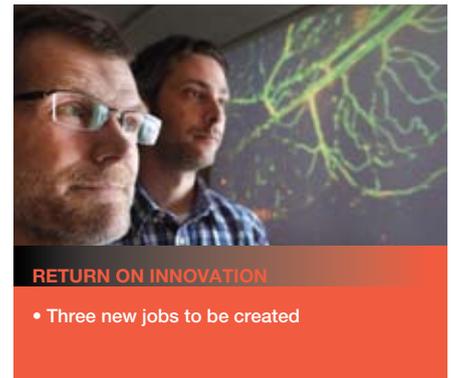
With support from the Ontario Partnership for Innovation and Commercialization (OPIC), Brock University's online interactive writing tutorial Essay-Zone™ has become an international commercialization success story. Essay-Zone™ was recently developed by Brock's Learning Skills Services to cost-effectively teach university students how to write original, organized, well-researched essays. The tutorial offers individualized writing instruction through game-like, self-directed online modules and activities. More than 8,000 Brock students have used the tutorial since its inception in 2008. Essay-Zone™ is not only a hit at Brock, in just three short years, 12 post-secondary institutions both in Canada and internationally, licensed the resource.





**MaRS Innovation  
Sanofi-aventis**

Under the leadership of MaRS Innovation, researchers at Sunnybrook Health Sciences Centre entered into an exciting agreement earlier this year with global pharmaceutical company, Sanofi-aventis, to develop Vasculotide, an investigational compound designed to treat chronic wounds. Vasculotide is a synthetic peptide-based growth factor that may help blood vessels grow, rapidly shortening the time it takes for wounds to close because the stimulation of blood flow to the wound facilitates effective delivery of nutrients and other factors. Synthetic peptides are useful pharmaceutical agents as they are small enough to be manufactured by traditional chemical methods. Vasculotide, an angiogenic compound (stimulates blood vessel growth), was invented by senior scientists Dr. Dan Dumont and Dr. Paul Van Slyke at Sunnybrook Research Institute in Toronto. Sanofi-aventis has an exclusive worldwide option to the compound, which they hope will assist patients suffering from diabetic foot ulcers.



**RETURN ON INNOVATION**

- Three new jobs to be created

**C4  
Tyromer**

Each year, more than 12 million tires are scrapped in Ontario. Current recycling processes make it impossible to blend the rubber back into rubber compounds, resulting in most tires being burned or used as filler. Waterloo-based start-up company, Tyromer Inc., has a solution. Working with scientists at the University of Waterloo, the company developed an inexpensive, chemical-free process to turn scrap tires into a useful, safe and environmentally friendly polymer called Tyromer. Made from 100 per cent scrap tires, Tyromer has physical properties and strength close to virgin rubber and can be blended into rubber compounds for tires. The technology means scrap tires can now be diverted from landfill and reused instead of being burned, thereby reducing greenhouse gas emissions.



**RETURN ON INNOVATION**

- Created three full-time positions and supported two PhD students

**Colleges Ontario Network For Industry Innovation (CONII)  
Wireless Strategies**

Traditional streetlights rely on electrical grids for their power supply, and require extensive trenching, conduit and cable laying as well as planning, zoning, permit and construction costs. Clear Blue Technologies, a Toronto-based engineering consultancy, recently collaborated with the Centennial College Energy Institute (CEI) and School of Business to help solve this problem. Together, they developed a solar and wind-powered streetlight that utilizes LED lighting and wireless communications technologies. The new technology eliminates the significant operating and construction costs associated with traditional installations. In addition to this significant advance in “green” energy, this innovative technology makes street lighting a possibility where electrical grids do not exist. The project has now moved to a prototype and testing phase.



**RETURN ON INNOVATION**

- Three jobs created, five more projected by the end of 2012

# Investing in the **next generation** of innovators and ideas

In addition to support for technologies and ideas with demonstrated commercial potential, OCE also supports and invests in early-stage projects, where the probability of commercial success and potential total return on innovation are both substantial.

## AEM Healthy Foods

University of Guelph's AEM Healthy Foods in collaboration with Jersey Ontario and the Dairy Farmers of Ontario has developed a low-sodium, low-sugar chocolate milk product as part of University of Guelph's Interdisciplinary Product Development class. AEM's product addresses the needs of health-conscious parents who want to reduce their children's sugar intake. Early testing has shown that 20 per cent of the sugar in chocolate milk can be removed without affecting taste. AEM Healthy Foods won Best Connections Project by a University Team at Discovery 2011 and now the team is developing a new business called LoSo Foods, and has plans to license their product to major milk producers in Canada and abroad.



### RETURN ON INNOVATION

- Hands-on experiential learning opportunity in commercialization
- New product development
- Potential new start-up

## ClimateCHECK

ClimateCHECK is a leading environmental services and solutions provider that encompasses greenhouse gas management and ecosystem services. It has its headquarters in Ottawa and offices across North America, plus a global network of partners. OCE's First Job program enabled ClimateCHECK to recruit University of Waterloo graduate Lisa Dyer MSc to provide value-added solutions to the agriculture and resource sectors by developing industry best practices using ClimateCHECK's cloud-based Collaborase software ([www.collaborase.com](http://www.collaborase.com)). Through ClimateCHECK's employee training programs, Lisa excelled in completing her accreditation as a Professional Agrologist in the Greenhouse Gas Management Institute e-learning program. Lisa currently plays an integral role in the development process of Canadian and international initiatives.



### RETURN ON INNOVATION

OCE's First Job award was integral in the acceleration of my career and provided me with the opportunity to apply the knowledge I gained during my graduate work to the real-world business environment."

Lisa Dyer

## Kintech Orthopaedics and Canadian Engineered Innovations

Three Humber College students with support from Kintech Orthopaedics and Canadian Engineered Innovations have developed a unique wireless, automated E-Ankle that allows users to remotely control and change the range of motion of a standard Ankle Foot Orthotic (AFO). Standard AFOs allow the ankle joint to flex up to 14 degrees, which only enables someone with a pre-existing foot condition to walk on flat surfaces. By automating an AFO and adding a remote control, users can walk on uneven ground more easily, climb stairs, drive, or step up onto a bus, opening up a world of movement to AFO users. Kintech estimates it will sell 30 units in Ontario during the clinical trial phase, which was due to start in September. The Humber student team recently won Best Connections Project by a College Team at Discovery 2011.

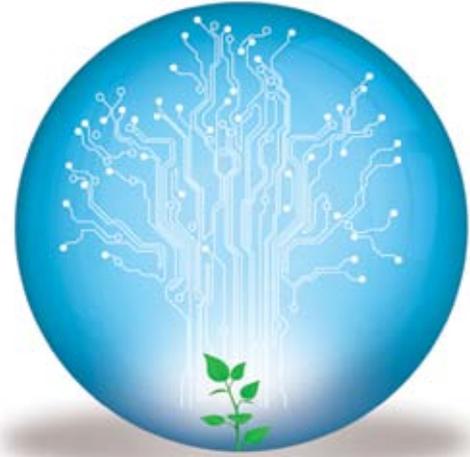


### RETURN ON INNOVATION

- Hands-on experiential learning opportunity in commercialization

**OCE's First Job award was integral in the acceleration of my career and provided me with the opportunity to apply the knowledge I gained during my graduate work to the real-world business environment."**

**Lisa Dyer**



### **Eve Medical**

Every year in the U.S. alone, Chlamydia, Gonorrhea and HPV cause infertility in 50,000 women and 13,000 cases of cervical cancer. Almost all these cases are preventable with regular screenings, but issues such as lack of access, time constraints, embarrassment and pain prevent many women from taking care of themselves. With funding from OCE and OCE's CCR, Eve Medical is developing HerSwab™ – a device that makes it simple for women to self-collect a high-quality sample for screening without a doctor. This reduces the barriers to screenings for women, while saving time and resources for clinics.



**RETURN ON INNOVATION**

- 40 jobs by 2015

### **Haliburton Forest**

Timber has been harvested in Ontario's Haliburton region since the mid-1800s, but only under the management of Peter Schleifenbaum, president of Haliburton Forest and Wild Life Reserve, has a thriving wood-products business co-existed with a sustainable forest ecosystem. Schleifenbaum built a new sawmill and began operating in 2009. Instead of using only prime white pine, he designed the mill to work with any of the 25 local hard wood species. Now working with the University of Toronto and with \$75,000 of funding from OCE, the company is examining the use of wood fibre and wastes in the development of bio-oils as a diesel substitute, wood gas as a heat source and biochar as a soil additive – all of which have significant value-add for the wood fibre output of the mill.



**RETURN ON INNOVATION**

- "Stabilizing" 30 jobs in the forest
- 20 new employees in the wood-processing part of the business

### **MyVoice**

Thousands of Ontarians need to use technology to communicate due to disorders caused by stroke, autism and neurodegenerative diseases. Toronto-based MyVoice Inc. has developed a modern, portable, easy-to-use smart phone application designed to provide users with the words they need quickly and easily. Developed by University of Toronto student Alex Levy and his team of 14 students, MyVoice is location-aware, has downloadable phrase books and can be customized wirelessly from any web browser. The app, used by more than 7,300 people in 30 countries, features lifelike voices and a simple interface, allowing users to communicate fluidly and fit in socially. MyVoice recently received \$55,000 in funding from OCE's Market Readiness Program.



**RETURN ON INNOVATION**

- Created 14 jobs to date; 15-25 new jobs in the next three to five years

# A blueprint for innovation



Named Canada's Best Trade Show in 2010, Discovery brings together industry, entrepreneurs, academia, investors and government, all of whom play a crucial role in the province's innovation continuum.



## HIGHLIGHTS FROM DISCOVERY 2011

- Entrepreneur and student competitions
- App Revolution – a look into the hottest Canadian mobile trends
- Keynote speaker David G. Thomson, bestselling author of *Blueprint to a Billion*, advisor and speaker
- Ontario's Global Water Leadership Summit (May 17–18)
- Keynote speaker Bill Buxton, Principal Researcher, Microsoft Research and author of *Sketching User Experiences*
- Ontario Projection: Advances in 3D conference
- Speed Mentoring
- Meet an Investor Hour

Canada's largest innovation and commercialization event attracted more than 2,600 attendees and 330 exhibitors in 2011. Held annually each May at the Metro Toronto Convention Centre, Discovery showcases leading-edge technologies, best practices and research from sectors such as health, manufacturing, digital media and cleantech, including energy, environment and water.

"Discovery shines the innovation spotlight on Canada's innovators, funders, thinkers, catalysts, entrepreneurs and researchers," said OCE President and CEO Dr. Tom Corr.

"Discovery brings together key stakeholders from all sectors. This is where business deals are made that drive new technologies to market," said Corr. "Given the calibre of the companies that attended and the research showcased at Discovery 11, I'm confident that Ontario is poised to make some significant innovation breakthroughs."

Ontario Minister of Training Colleges and Universities Glen Murray said "Discovery is the kind of event that showcases what we do so well in Ontario – connecting innovators with the expertise and resources they need to thrive."

SAVE THE DATE:  
**DISCOVERY 2012**  
MAY 14-15, 2012  
[www.ocediscovery.com](http://www.ocediscovery.com)

[Discovery is] a great way to connect with people, and in a format that you can do with ease. Awesome experience, and well worth it on many different levels – education, networking, scouting.”

Discovery 2011 Conference Attendee



## The future of 3D

### Ontario Projection: Advances in 3D

Discovery 11 went 3D for the first time as it hosted Ontario Projection: Advances in 3D in collaboration with FilmOntario, the S3D gaming Alliance and 3D FLIC. The conference provided attendees with a broad overview of 3D content production in Ontario, along with an in-depth look at current and future technologies.

The inaugural event was highlighted by a collection of dynamic panels, speakers and exhibitor showcases around 3D technology and content. Attendees addressed challenges faced by video game designers, stereo 3D conversion, consumer experience, safety issues and much more.

A collection of 3D companies also showcased on the Discovery 11 tradeshow floor, where they presented their content and technologies to attendees.



[At Discovery 11] I was blown away by the breadth and scope of the 3D technologies being developed in Ontario and how they can help drive new industry breakthroughs.”

Andrea Wahbe, Techvibes

## welcomed Ontario's Global Water Leadership Summit

OCE partnered with the Government of Ontario, XPV Capital Corporation, Cleantech Group, and The Artemis Project to host the inaugural Ontario's Global Water Leadership Summit.



The event brought together over 300 world-renowned water innovators, thinkers, entrepreneurs, researchers and venture capitalists who shared their best practices, specific water challenges and suggestions for the future of innovation in the water sector.

"Ontario's Global Water Leadership Summit points to the importance of the global water market and strengthens Ontario's position as a leader in water innovation," said Sandra Papatello, former Ontario Minister of Economic Development and Trade.

"Water is not just a third world problem, or a public sector issue – it's becoming a new engine for jobs" said Laura Shenkar, founding principal of The Artemis Project, and The Artemis Top 50 Water Tech Listing.

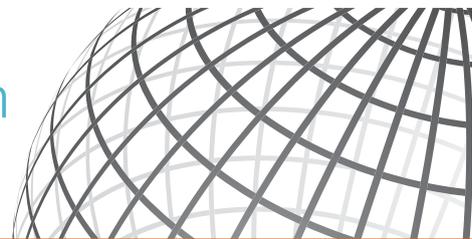
**"We regularly identify significant emerging investment opportunities for private investors, technology developers and large corporations to do well by doing good, making a difference to the enormous clean water shortages predicted around the world."**

**Dave Henderson, Managing Director of XPV Capital Corporation Water and Honourary Summit Chair**

## Advancing global innovation: International Commercialization Forum

March 30–31, 2011 – Ottawa [www.theicforum.com](http://www.theicforum.com)

Hosted by: Ontario Centres of Excellence's Centre for Commercialization of Research



OCE's Centre for Commercialization of Research (CCR) hosted an interactive two-day forum on March 30 and March 31, 2011, in Ottawa that attracted over 70 of the world's brightest minds from academia, government and industry representing 18 countries and eight provinces. The inaugural International Commercialization Forum provided an opportunity to share the most compelling ideas to improve the state of global innovation and advance commercialization.

A ground breaking outcome from the forum was the formation of the International Commercialization Alliance (ICA) with 47 founding members signing on from 18 countries. The objective of the ICA is to create a formal, structured alliance that will focus on exemplary practices and emerging models to build sustainable, innovative companies that are based on the results of publicly funded research. In addition to founding the Alliance OCE's CCR is providing secretariat services to the Alliance. Given the overwhelming success of the event, a second forum is scheduled for March 20–21, 2012.



**What OCE's Centre for Commercialization of Research is determined to do coming out of the International Commercialization Forum and with the creation of the International Commercialization Alliance is to implement more effective practices and innovative models to take research results and transform them into globally competitive products and services."**

**Sean Conway, Chair, Ontario Centres of Excellence**

# Ontario Centres of Excellence is proud to have worked with and supported these award-winning companies.

## **Aeryon Labs**

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Technology

2011 Ernst & Young 2011 Entrepreneur of the Year, Finalist, David Kroetsch, Dr. Michael Peasgood, Emerging Entrepreneur

## **Arise Technologies**

2010 Deloitte Canadian Technology Fast 50 List, ranked 11

2010 Deloitte Technology Fast 500, ranked 46

## **Attodyne Inc.**

2010 TIEQuest Business Venture Competition, Best Clean Tech Award

2010 TIEQuest Business Venture Competition, 2nd Place

## **Avenir Medical**

2010 Discovery, Ontario's Next Top Entrepreneur Competition, 1st Place

2011 Visa Canada's Gobiz Elevator Pitch Competition, Finalist

2011 TIEQuest Competition Finalist

## **Benbria**

2010 PROFIT HOT 50 Canada's Emerging Growth Companies ranked 11

2010 Branham Group Top 25 Canadian Up and Coming Information and Communications Technology Companies

2010 *Ottawa Business Journal* Top 10 Start-ups to Watch

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Technology

2010 *Unified Communications* magazine Product of the Year Award

2010 Canada's Top 10 Competition Technology Winner – OCRI

2010 TMC Communications Solutions Product of the Year Award

2011 Golden Bridge Award "Best New Products and Services" category

2011 Ernst & Young 2011 Entrepreneur of the Year, Finalist, Mason Du, Young Entrepreneur

## **Biofont Inc.**

2010 Tony Brower Innovation Exposition, Winner

## **BTI Systems**

2010 TelcoTV Vision Awards, Finalist

2011 OCRI Product of the Year Award

2011 Profit 200, ranked 78

## **BufferBox Inc.**

2011 Queen's Entrepreneurship Competition, Innovation Award Winner

2011 Mechatronics Engineering Design Symposium (University of Waterloo), Best Overall Design

2011 Waterloo Nicol Award Competition, 1st Place

## **Clearpath Robotics Inc.**

2010 University of Waterloo MBET Innovation Fair, 2nd Place

2011 TIEQuest Awards, 2nd Place

2011 TieQuest New Entrepreneur Award

2011 CBET RISE Business Plan Competition, 1st Place

## **Desire2Learn Incorporated**

2010 Brandon Hall Gold Medal Award for Technology Excellence in the Best Advance in Technology in Learning Analytics or Reporting Category

2010 IMS LearnSAT Best in Category Award for Learning Management, 1st Place

2010 International Platinum MarCom Award

2010 Award of Excellence in Videographer Awards

2010 National Federation of the Blind Nonvisual Accessibility (NVA) Gold Level Web Certification

2011 Microsoft U.S. Public Sector Partner of the Year Award

2011 Microsoft Worldwide Education Partner of the Year

2011 Top 50 Best Small & Medium Employers in Canada

## **DragonWave Inc.**

2010 OCRI Company of the Year 2010

2010 Branham 300 Awards, ranked 38

2010 Deloitte Technology Fast 50, ranked 29

2010 Deloitte Technology Fast 500, ranked 133

2011 CATA 2011 CIO Leadership Award, Erik Boch, CTO

2011 *Ottawa Business Journal* Forty under 40, Greg Friesen, VP Product Management

## **EION Wireless**

2010 Deloitte Canadian Technology Fast 50, ranked 46

2010 4GWE Product of the Year Award for the LibraNet 5860 and the Libra MAX

## **Electrovaya Inc.**

2011 Ernst & Young 2011 Entrepreneur of the Year, Finalist, Dr. Sankar DasGupta, Technology

## **Eve Medical**

2011 Up-Start! Competition Winner

## **Gazaro Inc.**

2010 *Ottawa Business Journal* Start-ups to Watch

2011 Branham300: Top 25 ICT Up and Comer

2011 TIE50 Awards, Finalist (TIE Silicon Valley)

## **gShift Labs**

2010 Start-up of the Year (York Technology Association)

2010 Canada's Hottest Innovative Companies (Canadian Innovation Exchange)

2011 Branham300: Top 25 ICT Up and Comer

2011 Canadian Technology Accelerator Winner (Canadian Innovation Exchange)

## **Giatec Scientific**

2011 OCRI Student Entrepreneur of the Year Award, president, Pouria Ghods

2011 OCRI Student Researcher of the Year Award, CEO, Aali Alizadeh

## **LifeLike BioTissue**

2010 TIEQuest Business Venture Competition, HTX Best Healthcare Industry Award

## **Miovision Technologies Inc.**

2010 Ontario Centres of Excellence Mind-to-Market Award Winner

2010 Top 40 Under 40 in Kitchener-Waterloo, CEO Kurtis McBride

## **Morgan Solar Inc.**

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Cleantech

2010 Ernst & Young's Entrepreneur of the Year Award, Finalist, Emerging Entrepreneur

2010 Canadian Energy Innovation Award (OCE, Borden Ladner Gervais, Association of Power Producers of Ontario)

2010 Next 10 Emerging Cleantech Leaders (*Corporate Knights* Magazine)

2011 Corporate Knights Clean Capitalism Clean16 – R&D Award Winner

## **NexJ Systems**

2010 Deloitte Canadian Technology Fast 50 list, ranked 4

2011 Honors Laureate (Computerworld)

## **NIMTech Inc.**

2010 Canada's Hottest Innovative Companies (Canadian Innovation Exchange)

2011 TIEQuest Awards, 2nd Place

2011 TIEQuest Best Clean Tech Venture Award

2011 TIEQuest Joint Winner of the Best Intellectual Property Award

## **Nulogy**

2010 Top 100 technology provider, *Food Logistics* Magazine

2011 Acetech Network of Top CEOs Award, Jason Tham

## **OneChip Photonics**

2010 *Ottawa Business Journal* Start-ups to Watch

2010 Photonics Spectra's Start-ups to Watch

2010 Top 60 Emerging Start-ups "Silicon 60" (EE Times)

## **Panacis**

2010 *PROFIT* magazine – Canada's 100 Fastest Growing Companies, ranked 22

2011 *PROFIT* magazine – Canada's 100 Fastest Growing Companies, ranked 43

## **Peraso**

2011 Branham300: Top 25 ICT Up and Comers

## **Profound Medical**

2010 TIEQuest Business Venture Competition – OCE Award for Best Intellectual Property

2010 TIEQuest Business Venture Competition – Best-in-Class Award for Healthcare and Life Sciences

2010 Ontario Premier's Catalyst Award Recipient for Start-up Company with the Best Innovation

## **Purifics ES Inc.**

2011 Artemis Project Top 50 Water Tech Winner

## **Quantum Dental Technologies**

2010 National Instrument's Graphical System Design and Achievement Award

2011 Angel Capital Association Silvertip Award for Innovation

## **REGEN Energy**

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Cleantech

## **RNA Diagnostics Inc.**

2010 Sanofi Pasteur Healthcare & Biotechnology Venture Challenge, 1st Prize

2011 TIEQuest, Best Healthcare Industry Award and Best Intellectual Property Award

## **Seregon Solutions Inc.**

2010 Ten Canadian Mobile and Wireless Companies to Watch, IDC

## **Skymeter Corporation**

2010 Intertraffic ITS/Traffic Management Award, overall winner

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Cleantech

## **Spartan Bioscience Inc.**

2010 Canadian Advanced Technology Alliance (CATA) Award for Outstanding Product Achievement in the ICT/Health Sector

2010 Ontario Premier's Catalyst Award Recipient for Best Young Innovator

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Life Science

## **Trojan Technologies**

2011 International Ultraviolet Association Lifetime Achievement Award, Chief Scientist, Dr. William L. Cairns

2011 International Ultraviolet Association Innovations in UV Award – Green Award

2011 ACE11 Green Ribbon Award (American Water Works Association)

## **Vive Nano**

2010 Frost & Sullivan North American Technology of the Year Award

2010 Canada's Top Ten Competition (Borden Ladner Gervais) – Cleantech

2011 Best Cleantech Presentation, New York Venture Summit

# Ontario Centres of Excellence Governance

## Board of Directors 2010–2011



**Sean Conway (Chair)**  
Public Policy Advisor, Gowling  
Lafleur Henderson LLP



**Andrew Abouchar**  
Partner  
Tech Capital Partners Inc.



**Dr. Suhayya Abu-Hakima**  
(Vice-Chair)  
President and CEO  
Amika Mobile Corporation



**Dr. Amit Chakma**  
President and Vice-Chancellor  
University of Western  
Ontario



**Dr. Robert Gillett**  
President  
Algonquin College



**Colin Kelleher**  
President  
Kelleher Financial Inc.



**Dr. Hadi Mahabadi**  
Vice President and Director  
Xerox Research Centre of  
Canada



**William J. McClean**  
Corporate Director



**David J. McFadden, Q.C.**  
Chair, Gowlings International  
Gowling Lafleur Henderson  
LLP



**Michael J. Nobrega**  
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**Dr. Molly S. Shoichet**  
Professor, Chemical  
Engineering & Applied  
Chemistry  
University of Toronto



**Dr. Mamdouh Shoukri**  
President and  
Vice-Chancellor  
York University



**Jeffrey Steiner (Secretary)**  
CEO and Founder  
New Franchise Media Inc.



**Barbara Wilkes**  
Managing Partner  
Management Initiatives Inc.



**Dr. Tom Corr (ex-officio)**  
President and CEO  
Ontario Centres of Excellence

## Observers (Board of Directors)

**George Ross**  
Deputy Minister  
Ontario Ministry of Economic  
Development and Innovation  
Deputy Minister  
Ontario Ministry of Consumer  
Services

**Brigit Viens**  
Senior Program Manager  
Networks of Centres of Excellence

## Executive Team

**Dr. Tom Corr**  
President and CEO

**Bob Civak**  
Senior Vice President  
Business Development Operations

**Dr. Mario Thomas**  
Senior Vice President  
Strategy, Planning and Partnerships

**William Ballios**  
Vice President  
Finance and Administration

**Anne Wettlaufer**  
Vice President  
Marketing and Communications

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



Ontario Centres of Excellence (OCE) promotes a healthy workplace, which is key to well-being and, by extension, innovation.



# OCE at a glance



- The Ontario Centres of Excellence (OCE) **not-for-profit program** was formally established in 1987 with seven independent centres that evolved and amalgamated into Ontario Centres of Excellence Inc., in 2004.
- In partnership with industry and academia, OCE **co-invests to commercialize innovation** originating in the province's colleges, universities and research hospitals.
- Real-world commercialization experiences are provided by OCE 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. It all comes back to the province's main goal: **ensuring the best ideas get the support they need to get to market.**
- Experienced teams of Business Development Managers are deployed to all corners of the province. OCE has a **province-wide footprint** with offices in Toronto, Mississauga, Waterloo, Ottawa and London.
- OCE is a member of the **Ontario Network of Excellence (ONE), Ontario's revitalized, client-focused, province-wide innovation network.**
- Within the ONE network, **OCE delivers the Industry Academic Collaboration Program (IACP)** and provides broader support to the province to drive Ontario's Innovation Agenda.
- Complementing and extending OCE's IACP research, talent and commercialization programs, **OCE's federally funded Centre for Commercialization of Research (CCR)** acts as a catalyst that enables innovative new businesses to grow and achieve sustainable commercial success and global competitiveness.
- **OCE recently introduced two new initiatives:** the Experiential Learning Program (ELP) and the Social Innovation Program (SIP).
- OCE efforts converge on four key sector areas – **advanced manufacturing; advanced health technologies; energy and environment; and information, communications technologies and digital media.**
- OCE manages programs to support the development of a **world-class technology transfer system.**
- Over the past seven years, OCE helped launch over 140 start-up companies that have attracted **more than \$849 million in additional investments.**
- Since 2004 OCE has brokered nearly **3,500 industry-academic collaborations.** It has also engaged with our major stakeholders including universities, colleges, research hospitals and institutes as well as organizations such as IRAP, NSERC, STDC, CFI, ISTP and Networks of Centres of Excellence for the benefit of all Ontarians.
- In 2010/2011 OCE invested **\$21.1 million in 477 projects and leveraged \$40.7 million** from industry partners in further investments. OCE engaged **599 researchers and co-investigators at 47 institutions during the year.**
- **More than 4,400** researchers, students and private sector employees were engaged in OCE projects and initiatives in 2010/2011.
- This past year **36 OCE-supported companies** were recognized with national or international awards including four recognized in the **Deloitte Fast 50 Awards.**
- OCE **excels at leveraging dollars** to help drive innovation in Ontario – on average twice the value.
- Known for "**de-risking**" innovation, **OCE** has developed expertise in this area. **A number of small and medium-sized companies** typically overlooked by traditional investors **have achieved market success through OCE support.**
- OCE's annual **Discovery conference is Canada's premier innovation and commercialization event** showcasing leading-edge technologies and research. Discovery 2011 included Ontario's Global Water Leadership Summit and Ontario Projection: Advances in 3D conference. The event attracted more than 2,600 attendees and 330 exhibitors.

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TORONTO | LONDON | MISSISSAUGA | OTTAWA | WATERLOO  
[www.oce-ontario.org](http://www.oce-ontario.org) | [info@oce-ontario.org](mailto:info@oce-ontario.org) | Toll Free: 1.866.759.6014



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