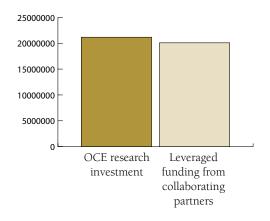


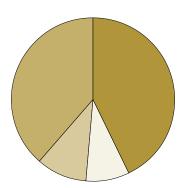
Annual Report 2004-2005

# **ONTARIO CENTRES OF EXCELLENCE: AT A GLANCE**



## Leverage

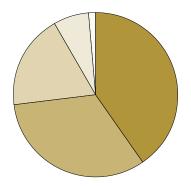
OCE Inc. invests a significant amount of the money granted to it by the government of Ontario in research projects in Ontario's universities and colleges. This leverages a nearly equal amount of investment for research – in the form of cash and in-kind support – from partners in industry and other levels of government. This creates a total investment in R&D in Ontario of over \$40 million.



# **Investing in Innovators**

OCE research investments support the development of highly qualified people in Ontario; 2624 people worked on OCE-supported research, including:

- Undergraduate Students 1008
- Graduate Students 1125
- Other Research Personnel 267
- Post-Doctoral Fellows 224



# **Moving Minds To Industry**

Nine-hundred and twenty-eight people who worked on OCE-supported research found positions outside their academic institution in 2004-2005, bringing their skills to a variety of key economic sectors:

- 60.13% found positions in industry inside Canada
- 48.38% went to industry with significant operations in Ontario
- 27.69% found positions with universities and government
- 10.24% left the country to non-Ontario based companies
- 1.94% left to other types of postions

# From the Lab to the Marketplace

OCE-supported research resulted in 8 technology licenses in 2004-2005; creating a total of 49 technology licenses currently in force.

OCE-supported research resulted in 12 new companies in 2004-2005; there are now 41 companies in business as a result of OCE-supported research employing 443 people.

These research results attracted an estimated total \$56,350,000 investment by companies and capital markets.

# Ontario Centres of Excellence Inc. Annual Report 2004 - 2005

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# **MESSAGE FROM THE CHAIR**

Since 1987, the Ontario Centres of Excellence have been a catalyst for innovation in Ontario, creating the vital connections between academic researchers and industry that are needed to propel innovations from the lab to the marketplace.

The environment in which the Centres operate has changed radically since their inception. To provide some perspective, five years after the first Centres were created, the World Wide Web was still in its infancy: there were still only 50 websites in the entire world. The tech stock bubble had just begun its ascent.

Through this change, our commitment to innovation has not wavered. It is the guiding principle in everything we do. Over time it has become clear in order to expand the Centres' reach, a new governance structure was required which would allow increased flexibility – and as a result, greater impact and influence.



David McFadden

Building on their 17-year history of success, we started this fiscal year with the formal merging of the four Centres into one overall corporate entity: Ontario Centres of Excellence Inc. (OCE Inc.) Marking a significant turning point in the history of the Centres, OCE Inc. was created to play a larger role in delivering on the province's innovation and competitiveness agenda. Since merging, we have moved quickly to sign a renewed partnership agreement with Ontario's universities and to put in place a new framework for creating research collaborations across the organization.

This year, OCE took action to create a solid foundation for success. Mark Romoff was appointed in the fall of 2004 as OCE's president and CEO. In a very short time, he has assembled a winning management team and developed both a vision and a three-year strategic plan designed to place the organization at the centre of Ontario's competitiveness agenda.

We are already seeing tangible results. In January 2005, OCE launched the Centre for Energy – the first new Centre since 1987 – demonstrating our ability to capitalize on emerging needs, a key rationale underlying the merger. We're proud of the integral role this Centre will play in the province's long-term energy strategy.

I'd like to thank OCE's Board of Directors, its executive and staff for their hard work and excellent dedication this year in moving OCE Inc. from vision to reality. It's clear to me that we have an ever-increasing role to play in leading the way on innovation. We are ideally situated to play that role and the need has never been greater.

In an exciting development, a new Ministry of Research and Innovation has been created in Ontario to focus solely on the province's research, innovation and commercialization strategies. The Ontario Centres of Excellence Program now falls within this new ministry, headed by Premier Dalton McGuinty – illustrating the importance the government places on competing and winning in the marketplace of ideas. We're proud to be an integral part of delivering on the government's innovation agenda.

With a year of restructuring now successfully completed, our goal is to move ahead to achieve enhanced development outcomes for our researchers, our business partners and the Province of Ontario.

SM Faddul

# REPORT FROM THE PRESIDENT AND CEO

This year has brought the Ontario Centres of Excellence significant opportunities along with some interesting challenges. I am pleased to report that we have flourished as an organization, and have accomplished some great things in a relatively short timeframe.

One of our key initiatives this year involved merging four separate Centres into a single entity – an impressive achievement. We did this to improve our organizational flexibility and to allow us to respond more quickly to opportunities and needs as they arise. And move quickly we did: backed by an \$8 million investment from the Ontario government, we launched an exciting new Centre for Energy in January that leverages considerable talent within our organization to address one of the Province's most pressing economic concerns. While we have been active in the energy sector for many years – in fact, we currently support 27 energy-related research projects – the Centre for Energy will give us the means to approach this key sector in a more focused and strategic manner.



Mark Romoff

We completed the building of a strong management team and assembled a new Board of Directors whose combined scientific and business acumen will help us build and leverage new opportunities. Throughout the year, we also continued to improve our programs and services and put in place a common infrastructure across the organization to support new and existing initiatives in a more efficient and effective manner. And that's just the beginning.

Looking forward, we will come together early in 2006 to mount the first ever OCE-wide conference. This event will bring together our partners in industry, academia, government and other 4th pillar organizations as well as showcase leading-edge research from our pre-eminent researchers. The program will offer something for all of our stakeholders groups.

Research and innovation are critical drivers of economic growth and competitiveness for Ontario. In 2003, The Ontario Task Force on Competitiveness, Productivity and Economic Progress noted that our prosperity ranks only 13th among 16 North American jurisdictions – including the 14 most populous US states, Ontario and Quebec. The impact on Ontarians is significant, resulting in 10 percent less after-tax disposable income than citizens of leading U.S. states – largely because individuals, businesses, and governments here invest less than our counterparts in those states. This includes investment in knowledge-based industries. That's where OCE comes in to play; identifying high potential research and collaborating with academia and industry to make the investments that will advance Ontario's competitive position.

Over the last fiscal year, we invested over \$21 million in research in Ontario's academic research institutions. This in turn leveraged over \$20 million in additional funding and in-kind support from our partners in industry and other levels of government. This research investment pays dividends for Ontario by increasing the pool of highly qualified researchers, creating new marketable technologies, launching new companies and supporting the emergence of new markets.

The period of this annual report represents a critical year of transition and growth for OCE. We have built the infrastructure to move forward with great confidence and efficiency, creating opportunities for investment and innovation that will ensure that Ontario's competitiveness, and its prosperity, stand second to none.

That Romoff

### **OVERVIEW**

OCE Inc. is a not-for-profit corporation dedicated to fostering innovation in Ontario. We deliver the Ontario Centres of Excellence Program on behalf of the Government of Ontario.

We do this in part by supporting the commercialization of industry and academic research collaborations in specific technologies within key market sectors.

Our Centres of Excellence have an enviable track record in connecting Ontario's academic researchers with innovative companies. There are five Centres that have come together under the OCE umbrella:

- Centre for Communications and Information Technology
- Centre for Earth and Environmental Technologies
- Centre for Materials and Manufacturing
- Centre for Photonics
- Centre for Energy

Under the new corporate entity, the Centres share a common mandate and continue to target sector-specific stakeholders, including industry and academic researchers.

OCE employs a unique model of economic development by acting as the primary bridge between Ontario's academic researchers and the province's private sector companies. This means moving laboratory discoveries quickly into the marketplace. As a combined group, OCE leverages existing relationships with partners, clients, stakeholders, and related agencies, creating a greater presence and impact in that marketplace. With this critical mass – and a shared focus – OCE is well-positioned to play a leadership role as the driving force within the Province's economic and innovation engine.

# **2004/2005 HIGHLIGHTS**

OCE Inc. had two important priorities for its first year of operation. The first: to ensure that the organization continued to deliver its core business: the programs and services that connect academic researchers with innovative companies. The second: to capitalize on the advantages created with the merger to chart a course for future growth and success.

To accomplish these priorities, the organization focused on four key thrusts:

- Creating results through commercialization. This means honing our selection processes to target those collaborative research projects with the greatest commercialization potential. It also means becoming a recognized expert in the metrics of innovation, and using our knowledge of successful innovative processes to build our partners' ability to initiate the right research.
- Leveraging investment and broadening our reach. As one organization, OCE Inc. will increase its financial leverage by seeking out allies and partners willing to be a part of collaborative research initiatives. As part of this, we will identify new partners, take a more international view of opportunities, and seek projects in exciting new areas.
- Building a High-Performance Organization. This means creating outstanding governance through a highly skilled Board of Directors, implementing best practices and strong accountability through a focused, seasoned senior management team, and seeking stronger ties with universities, colleges and other research organizations.
- Telling Our Story. This means communicating our value to stakeholders, building overall
  visibility and celebrating our successes. We will enlist the support of people beyond our
  existing networks: innovators in emerging sectors, in the venture capital community and
  new strategic partners in showcasing the significant contribution we make to innovation
  and excellence in Ontario.

All in all, an ambitious plan. OCE has made considerable progress in its first year, realizing significant achievements on all fronts.

# CREATING RESULTS THROUGH COMMERCIALIZATION

OCE's research programs are delivered by the Centres and are tailored to meet the specific needs of the sectors they serve. Each has worked hard to improve the commercial relevance of their research investments, refining their selection processes to target research projects most likely to generate commercially-relevant outcomes.

For example, the Centre for Earth and Environmental Technologies has adopted a market-based research cluster approach. Under this approach, we work with industry representatives to define key market challenges that can be addressed through research. This then forms the foundation for the cluster and helps identify which academic researchers might best address these challenges. It creates networks of innovators focused on pressing challenges: people who address issues through research and move resulting solutions to the marketplace.

Similarly, to ensure its programs maximize their impact on industry in Ontario, the Centre for Materials and Manufacturing conducted an extensive review of its research procedures in late 2004. It sought feedback from stakeholders and examined the results of a major study of research project outcomes. The most significant result of this review: the Centre's Enabling Research Program was replaced by the Collaborative Research of Sectoral Interest Program, which supports projects of greater relevance to Ontario's manufacturing sectors.

Building on nearly 20 years of experience in creating research collaborations, we implemented a new cross-OCE collaborative agreement structure designed to create "win-win" partnerships between companies, researchers, their academic institutions and OCE. With the new agreements, a "commercialization manager" is identified at the beginning of a research project, ensuring a clear path to commercialization for all OCE-supported research projects.

Generating commercially-relevant research results is only part of the picture. OCE has also focused on increasing "receptor capacity" – building our partners' abilities to increase the prospects of commercial success.

One way we do this is by increasing the size of the province's pool of highly skilled researchers. This year OCE supported a network of over 2,600 researchers, undergraduate and graduate students and post-doctoral fellows through its research investments with a number of programs designed specifically to enhance the pool of highly qualified people in Ontario.

# Clustering For Clean Water

A key innovation cluster under the Centre for Earth and Environmental Technologies is focused on clean water technologies. Participants include companies like Zenon Environmental and Trojan Technologies; a number of environment consultancies; municipal governments in Toronto, Ottawa, Waterloo, Hamilton and others; Ontario's Ministry of the Environment; and researchers at 15 Ontario universities and colleges. This cluster brings these innovators together to create technologies that will not only make Ontario's water cleaner, but potentially create products or services that meet the need for clean water worldwide.

# Answering Ontario's Need For Skilled People

In 2000, before the Centre for Photonics and Niagara and Algonquin Colleges joined efforts for the Photonics Education and Training (PET) and Photonics Advanced Learning (PAL) projects, there was no credentialed undergraduate program in photonics in Ontario. The 4-year, \$7.6-million PET project installed two-year Photonics Engineering Technician and three-year Photonics



Photo courtesy of Niagara College

Engineering Technology programs at Niagara College and Algonquin College. The 4-year, \$9.6-million PAL project started in January 2004 and is establishing a four-year Bachelor of Applied Technology — Photonics at the same two colleges. Funding for the PET/PAL initiatives came from Government of Ontario Ministry of Economic Development and Trade's Strategic Skills Investment program and contributions from industry. The first Technician/Technologist cohort graduated in June 2004, and the first cohort of Bachelor of Applied Technology students started in September 2004.

One such initiative led by the Centre for Photonics supported the creation of photonics training programs in Ontario's colleges, which culminated in the launch of a Bachelor of Applied Technology in Photonics at Algonquin and Niagara Colleges in September 2004. One of few bachelor-level photonics programs in North America, this addresses an urgent need for highly skilled photonics employees in a wide variety of industrial areas.

We take pride in knowing that many of the highly-trained people involved with OCE-supported research eventually take their skills to challenging positions in industry, government and academia: over 900 individuals did so this year, across a range of key sectors.

OCE takes a proactive role in moving research results from the lab to the marketplace. One example of this is the Accelerator Investment Program delivered by the Centre for Communications and Information Technology. This program provides investment and assistance to support academic researchers in the development of spin-off enterprises. The goal is to ensure that competitive ventures are created that are attractive to external investors – those with high potential for growth and prosperity. By the end of 2004, OCE had invested in seven companies through this program, leveraging over \$5 million in additional investment.

The Centre for Materials and Manufacturing also had significant success this year in the commercialization of research: during 2004, two new spin-off companies were created and 10 new technologies were transferred to industry:

- Artenga is a new company that is developing micro bubble generators to assist in the delivery of cancer fighting agents;
- PackagingOne is developing a process to enable the manufacture of "smart" labels.

Sometimes commercialization requires education. To be successful innovators, researchers in Ontario's universities need more than their technical skill, they need to understand how to best move their research results into the marketplace. An OCE-wide initiative led by the Centre for Communications and Information Technology has addressed this need by creating a Tech Transfer Handbook for academic researchers. Developed in conjunction with twelve university tech-transfer offices and the Innovations Foundation, this pulled together a range of information to help users make the best decisions in moving their research into the marketplace. It's just another example of how OCE bridges the gap between promising research results and their implementation.

These individual successes highlight the progress we're making in moving products and ideas from the lab to the marketplace. This year, OCE-supported research resulted in eight new technology licenses, bringing the total of the licenses in force to 49. It saw the creation of 12 new companies, meaning that there are now 41 companies employing nearly 450 people – entities that exist because OCE helped support the right research.



Ric Asselstine

# PackagingOne: Adding Intelligence To The World Around Us

Collaborating with the Centre for Materials and Manufacturing and a team of researchers at the University of Toronto, entrepreneur Ric Asselstine has created a company that uses a manufacturing technology called MultiScale Integration (MSI) to bring a new kind of product to market. Using MSI, PackagingOne can integrate micron scale silicon chips into physical circumstances previously not thought possible, creating electronic devices such as smart labels, tags, film and wearable medical patches.

The technology makes is easier to incorporate electronic data in the packaging of all kinds of objects, making it easier for manufacturers and retailers to track inventory, for example.

Mr. Asselstine credits OCE's Centre for Materials and Manufacturing as "... central to the birth of the company. They are an ongoing ally as we transition from concept to commercialization."

# LEVERAGING INVESTMENT AND BROADENING OUR REACH

Although quite effective at driving innovation within their respective sectors, as separate organizations it was difficult for the Centres to respond to new opportunities outside their own areas. Each Centre had limited resources to address non-sector specific aspects of innovation. Bringing them together under one umbrella laid the foundation to enable us to take advantage of new opportunities and play a larger overall role in driving innovation.

One such opportunity lay within the energy sector. Previously, the individual Centres pursued projects with applications within the energy sector, and it was difficult to coordinate these efforts. The solution: a new Centre for Energy that draws on the strengths in the energy sector across OCE, but provides them with coordination and focus.

Backed by an \$8 million investment from the Government of Ontario, this new Centre for Energy – the first new centre of excellence in nearly 20 years – was created this year to develop new energy technologies and bring them to the marketplace. The Centre responds to a key recommendation in the January 2004 Report of the Electricity Conservation and Supply Task Force.

Looking ahead, the Centre for Energy will support the development of new energy technologies, their integration into energy systems and explore new technologies and methodologies to manage energy markets.

OCE is exploring other ways to increase its footprint and create a greater impact on innovation in Ontario. One way is through strategic partnerships with other organizations with complementary mandates.

This year, the Centre for Communications and Information Technology entered into a partnership with Precarn – a not-for-profit, national consortium of corporations, research institutes and government partners working within the intelligent systems industry – on four research projects worth \$1.1 million. Precarn provided \$500,000 in funding to develop research results within the consortium, while the Centre's investment funded university research. OCE developed powerful alliances with these companies, some of which have gone on to further invest in university research through our other programs.

OCE has also created a program that targets research in Ontario's colleges. The more applied nature of college research means that these projects are frequently very close to marketplace needs. While different Centres have had college-based research projects in the past, the OCE College Partnerships Program provides a more cohesive approach to OCE's investment in college-based research. In its first round of funding, the College Partnerships Program funded eight projects, with a total investment of \$700,000.

These are just a few examples of OCE's ability to leverage additional funding from its partners and broaden its reach. Overall this year, OCE itself invested \$21 million in research in Ontario's universities and colleges. This investment drew over \$20 million in funding and in-kind support from industry and other levels of government, for a total investment in research and development in Ontario of over \$40 million.

# College Partnerships Program Spin-off Puts TV Programming in Viewers' Hands

OCE's partnership with Ontario's college researchers has already yielded a spin-off company: EyePlayTV Inc. The company's technology was developed with OCE support by Prof. Avrim Katzman at Sheridan College. The project's collaborative partner, e-tv interactive technologies inc. decided that the resulting interactive television technology was best commercialized through a new enterprise. In partnership with the researcher and Sheridan College, and with support from OCE's Accelerator Investment Program, EyePlayTV Inc. was formed. EyePlayTV has already signed with a Toronto-area television producer to co-produce a prototype interactive animated game show.

According to Prof. Katzman, without OCE's support "this would not, could not, have happened."

# **BUILDING A HIGH-PERFORMANCE ORGANIZATION**

In keeping with its mandate, the newly-merged OCE applies the benchmark of excellence to everything it does. In its first year, the emphasis has been on creating the foundation for a high-achieving organization.

This meant creating an outstanding Board of Directors, both to ensure our stakeholders have a voice in the organization and to tap into a range of expertise to infuse our strategic direction. OCE has put in place a skilled and diverse Board which involves people with backgrounds in academia, government, industry and venture capital. The Board made a significant decision in appointing the OCE's first President and CEO in the fall of 2004. They selected Mark Romoff, who began right away to build a strong management team and develop an ambitious three-year strategic plan for the organization.

We also moved to strengthen our partnership with Ontario's universities and colleges. OCE negotiated a new University Collaboration Agreement (UCA) and related College Collaboration Agreement (CCA), renewing our long-standing partnership with the Province's academic research institutions. These agreements outline the roles and responsibilities of research partnerships conducted in these institutions. They represent the framework for the very core of OCE's programs – collaboration between researchers and industry.

Similarly, OCE adopted a new Research Collaboration Agreement – the framework for specific research collaborations. This is the first time that all the Centres have used the same agreement to create research collaborations, making it easier for our stakeholders to work with us and providing the opportunity to fund projects across disciplines.

A high-performing organization is built through continuous improvement. Our efforts this year have created a solid foundation from which to build, allowing us to capitalize on emerging opportunities and leverage the organization's best practices and capabilities.

# **TELLING OUR STORY**

OCE's vision – to ignite innovation in Ontario – requires the support and participation of inventive people from the colleges, universities, industry, finance and government. For OCE to further increase its impact on innovation, we must gain the attention and affection of these people by telling our story: our vision, our design and our achievements.

OCE had an ideal opportunity to showcase itself with the launch of the new Centre of Energy in January 2005. The launch event, which featured demonstrations by current energy-related OCE-supported researchers, was attended by over 200 stakeholders in the sector. It provided a compelling example of OCE's newfound ability to quickly address new opportunities, and received significant media coverage in the process.

Longer-term, a key step in attracting innovators to OCE is the development of a distinctive and coherent OCE Inc. brand. Strong brands provide a rallying point both inside and outside the organization, providing a unifying idea that conveys why OCE's activities are important to our partners and to Ontario. We have begun the foundation of this exercise as part of a rebranding initiative that will be completed in 2005-2006. Ultimately, this will help innovators in Ontario better understand what OCE is and how it can help them generate innovations and move them into the marketplace.

As a prelude to the brand process, OCE needed greater understanding of what it represented to its staff, partners and stakeholders. For an internal snapshot, an enterprise-wide team undertook an environmental analysis. Decima Research was retained to survey external stakeholders. These studies have provided valuable information that will be applied to brand, marketing and business development initiatives in the coming year. As a starting point, this work provided the foundation for OCE's current strategic and operating plan.

The organization made great strides over the past 12 months. The plans for next year are even more ambitious. As a team and with our partners and stakeholders, we will continue to work hard and smart on the business of advancing Ontario's competitiveness agenda through innovation, collaboration and commercialization.

# ONTARIO CENTRES OF EXCELLENCE: 2004 - 2005 BOARD OF DIRECTORS

David J. McFadden, Q.C. (Chairman)

Partner, Gowlings Lafleur Henderson LLP

Robert Moses (Vice-Chairman)

President - PCI Enterprises Inc.

Suhayya (Sue) Abu-Hakima

President and CEO - AmikaNow! Corporation

Peter Annan

President - Sensors and Software Inc.

Ken Carpenter

President and CEO - Burlington Technologies Inc.

Mark Chamberlain

President and CEO - Pictorvision

Sean Conway

Director, Institute of Intergovernmental Relations Queen's University

Suzanne Fortier

Vice-Principal, Academic - Queen's University at Kingston

Paul Guild

Vice-President, University Research - University of Waterloo

Rebecca MacDonald

Chair & CEO - Ontario Energy Savings Corporation

Jim Orgill

Managing Director - BDC Venture Capital

Mamdouh Shoukri

Vice-President, Research and International Affairs

**McMaster University** 

Ian Smith

Director General - National Research Council Canada, Institute for Biodiagnostics

Jeffrey Steiner

President & CEO - TEDCO

Ilse Treurnicht

President & CEO, Primaxis Technology Ventures Inc.

Kim Woodhouse

Professor - Dept. of Chemical Engineering and Applied Chemistry, University of Toronto

Mark Romoff (Ex-officio)

President and CEO, Ontario Centres of Excellence Inc.

# ONTARIO CENTRES OF EXCELLENCE INC. EXECUTIVE TEAM

Mark Romoff

President and CEO

William Ballios

Vice President, Finance and Administration

Jocelyn Brodie

Vice President, Marketing and Communications

Geoff Clarke

**Managing Director** 

Centre for Materials and Manufacturing

Nancy Cowan

Managing Director - Centre for Energy

Ronald Killeen

**Managing Director** 

Centre for Communications and Information Technology

Gerard Lynch

Managing Director - Centre for Photonics

Dan McGillivray

**Managing Director** 

Centre for Earth and Environmental Technologies

Elaine Roper

Vice President, Human Resources



# ANNUAL REPORT PERFORMANCE INDICATORS FOR ONTARIO CENTRES OF EXCELLENCE INC.: 2004-2005

1	Industry Support:	Totals
1.1	Industry Support to Centre Research Projects, Facilities and Student Programs	
	(a) Cash	\$5,052,007
	(b) In-kind	\$10,255,581
1.2	Industry cash support to Centre Researchers (including cash amount in 1.1)	\$29,643,983
1.3	Companies currently in a substantial working relationship with the Centre (# of Companies)	854
1.4	Industry cash and in-kind to Centre (other than 1.1)	\$4,708,906
	Industry Support to Centres (Ministry Perf Measure 1.1a&b+1.4	\$20,016,494
2	Education and Training:	
2.1	Researchers (HQP not including Centre Researchers) working on Centre Research Projects - Total (2.1 + 2.4	1) 2,624
	- Graduate Students	1,125
	- Post-Doctoral Fellows	224
	- Other Research Personnel	267
	Total researchers on Centre Projects (2.1+4.2)	3,133
2.2		5,190
	- Graduate Students	2,866
	- Post-Doctoral Fellows	480
	- Other research personnel	836
2.3	Number of HQP Candidates working on Centre Research Projects leaving University	928
	(a) positions in industry inside Canada	60.13%
	(b) to industry with significant operations in Ontario	48.38%
	(c) to positions with universities and government	27.69%
	(d) leaving the country to non-Ontario based companies	10.24%
	(e) Other	1.94%
	Totals	100.0%
2.4	Number of undergraduate students	1,008
3	Networking and Knowledge Transfer:	
3.1	Consortia/Alliances between universities and companies in which the Centres play a significant role	
	# Total	67
	# of companies involved	298
	# of researchers involved	502
3.2	Collaborative Research Ventures, between research groups in Ontario, formed as a result of Centre efforts	
	Total #	154
	between departments in the same university	52
	between Universities	48
	Researchers involved	291

3.3	Centre workshops/seminars/lectures	
	(a) Total number	139
	(b) Number of company representatives attending above (person days)	5,267
	(c) Researchers and students attending above (person days)	6,418
3.4	Technology Transfer Activities to Industry by Centre Researchers	1,742
3.5	Centre members (by Membership Category)	3,055
3.6	Companies/individuals receiving information from the Centre	27,104
4	Research Excellence/Capacity:	
4.1	Refereed publications by Centre Researchers	3,467
4.2	Total Current Centre Researchers	509
4.3	Number of universities/colleges/hospitals carrying out Centre Research Projects	25
5	Commercialization:	
5.1	Technology licenses granted to industry	
	(a) in current year	8
	(b) in force	49
5.2	Additional investment made by companies/capital markets in Centre IP (\$ million estimated)	\$56,350,000
5.3	Equity positions in companies held by Centre	
	Total estimated value (\$)	\$6,850,000
	Companies (#)	33
5.4	Companies formed/spun off as a result of Centre sponsored research	
	in current year (#)	12
	in business (#)	41
	Of Canadian employees (#)	443
5.5	Gross licensing revenue to Centre	
	in current year (\$)	\$45,451
	Cumulative (\$)	\$330,524
5.6	Patents and registered copyrights filed/granted by Centre Researchers	163
6	Other Government Support to Centre Researchers:	
6.1	(a) NSERC & Other Federal	\$64,682,434
6.2	Ontario (other than Accountable Grant)	\$25,427,523
6.3	Other government and foundations, etc. (includes foreign government	\$35,533,628
6.4	Total of 6.1-6.3	\$125,643,585

Financial Statements of

# ONTARIO CENTRES OF EXCELLENCE INC.

Year ended March 31, 2005



KPMG LLP
Chartered Accountants
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PO Box 31 Stn Commerce Court
Toronto ON M5L 1B2
Canada

Telephone (416) 777-8500 Fax (416) 777-8818 Internet www.kpmg.ca

#### **AUDITORS' REPORT**

To the Members of Ontario Centres of Excellence Inc.

We have audited the balance sheet of Ontario Centres of Excellence Inc. as at March 31, 2005 and the statements of operations, changes in fund balances and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Company as at March 31, 2005 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

**Chartered Accountants** 

KPMG LLP

Toronto, Canada

June 17, 2005

Balance Sheet

March 31, 2005, with comparative figures for 2004

	2005	2004
		(Restated)
Assets		
Current assets:		
Cash and cash equivalents	\$ 11,943,215	\$ 14,344,644
Short-term investments	404.048	2,439,560
Funds held in trust (note 11) Accounts receivable	401,918 1,612,920	346,045 2,043,879
Grants receivable (note 2)	9,511,446	1,553,966
Prepaid expenses	111,714	388,684
Tropala expenses	23,581,213	21,116,778
Marketable securities	_	551,010
Loans receivable (note 3)	9	. 4
Investments (note 4)	34	22
Capital assets (note 5)	550,114	240,684
	\$ 24,131,370	\$ 21,908,498
Liabilities and Fund Balances		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 12,242,511	\$ 11,083,630
Trust funds payable (note 11)	401,918	346,045
Deferred grant revenue (note 6) Deferred industry contributions (note 7)	4,324,074 2,144,638	4,329,471 941,899
Deferred other contributions (note 8)	2, 144,036 294,791	1,271,647
befored other contributions (note o)	19,407,932	17,972,692
Deferred lease obligations (note 9)	193,837	_
Fund balances:		
Invested in capital assets	550,114	240,684
Unrestricted (note 12)	3,979,487	3,695,122
	4,529,601	3,935,806
Commitments and contingency (note 13)		
	\$ 24,131,370	\$ 21,908,498

See accompanying notes to financial statements.

On behalf of the Board:

Director

Director

# ONTARIO CENTRES OF EXCELLENCE INC. Statement of Operations

Year ended March 31, 2005

				Joint Projects	ts		
		Emerging Materials	Advanced	Centre for Microelectronics	Photonics Education and Training for	Advanced Learning in Photonics for Manufacturing	
	General	Knowledge Program	Manufacturing Institute	Assembly and Packaging	Critical Skills Shortages	Biotechnology Applications	Total
Revenue: Grant	\$ 32,305,397	↔	es.	€	€	l €	\$ 32,305,397
Industry contributions Other government contributions	1,568,863 19,825	160,800 813,047	! 1	371,163	76,416	1,252,407	1,729,663 2,532,858
In-kind equipment contributions Other	850,494	39,432	197,847	150,216	1 1	692,082	692,082
	34,744,579	1,013,279	197,847	521,379	76,416	1,947,958	38,501,458
Expenses:			•				-
Program expenditures: Research	19,416,345	1,442,389	1	310,366	į	i	21,169,100
Education and training	526,966		1	1	50,000	1,856,122	2,433,088
Network and knowledge transfer	816,579	i	42,406	ı	ı	i	858,985
Commercialization	2,700,343	I	I	ı	ı	ı	2,700,343
New initiatives	25,000	j	1		ı	•	25,000
Program development Program support and administration	23,485,233 5,842,318 4,323,233	1,442,389 70,890	42,406 155,441 —	310,366 211,013 _	50,000 26,416 	1,856,122 91,836 -	27,186,516 6,397,914 4,323,233
Total expenses before appropriation of fund balance	33,650,784	1,513,279	197,847	521,379	76,416	1,947,958	37,907,663
	1,093,795	(200,000)	I	i	ì	1	593,795
Appropriation	(200'000)	200,000	İ	ŧ	l	ŝ	l
Excess of revenue over expenses	\$ 593,795	۱ 🛠	ا چ	ا چ	۱ \$	ا ج	\$ 593,795

See accompanying notes to financial statements.

Statement of Changes in Fund Balances

Year ended March 31, 2005

	Invested in capital assets	Unrestricted	Total
Fund balances, beginning of year	\$ 240,684	\$ 3,695,122	\$ 3,935,806
Excess of revenue over expenses (expenses over revenue)	(203,890)	797,685	593,795
Investment in capital assets	513,320	(513,320)	-
Fund balances, end of year	\$ 550,114	\$ 3,979,487	\$ 4,529,601

See accompanying notes to financial statements.

Statement of Cash Flows

Year ended March 31, 2005

Cash provided by (used in):		
Operating activities:		
Excess of revenue over expenses	\$	593,795
Items not involving cash:		
Depreciation and amortization of capital assets		202,083
Amortization of deferred lease obligations		(9,469)
Gain on disposal of capital assets		(2,925)
Write-down of loans receivable		1,224,995
Change in non-cash operating working capital (note 14)	· · · · · · · · · · · · · · · · · · ·	(5,870,184)
		(3,861,705)
Financing and investing activities:		
Purchase of capital assets		(513,320)
Proceeds from disposition of capital assets		4,732
Proceeds on sale of marketable securities		551,010
Investments		(12)
Increase in loans receivable		(1,225,000)
Increase in deferred lease obligations		203,306
		(979,284)
Decrease in each and each equivalents		(4 940 090)
Decrease in cash and cash equivalents		(4,840,989)
Cash and cash equivalents, beginning of year		16,784,204
Cash and cash equivalents, end of year	\$	11,943,215

See accompanying notes to financial statements.

Notes to Financial Statements

Year ended March 31, 2005

Ontario Centres of Excellence Inc. ("OCE") was incorporated under the Corporations Act (Ontario) on July 3, 2003, as a not-for-profit corporation, without share capital. OCE's principal objectives are to stimulate, promote, foster, sponsor and direct fundamental and applied research in support of the changing needs of, and challenges faced by Ontario industries; facilitate the training and education of researchers, scholars, scientists and engineers in areas relevant to Ontario industries; and facilitate transfer, sharing and diffusion of learning, knowledge and technology between Ontario universities and industries.

Effective April 1, 2004, OCE amalgamated with Materials and Manufacturing Ontario and Photonics Research Ontario and, pursuant to Asset Transfer Agreements, acquired the assets of the Centre for Research in Earth and Space Technology and Communications and Information Technology Ontario (collectively, "The Predecessor Centres"). As a result of these transactions with The Predecessor Centres, OCE has assumed all the liabilities and obligations of The Predecessor Centres. Comparative information is presented only for the balance sheet as the information is not readily available for the other statements.

OCE has continued the business and operations of The Predecessor Centres, which now operate as divisions of OCE.

On January 10, 2005, the Ministry of Economic Development and Trade ("MEDT") announced the creation of the Centre of Energy to be administered and managed by OCE. No funds have been received or recorded as revenue during the year ended March 31, 2005.

#### 1. Significant accounting policies:

Adoption of common accounting policies:

As a result of the merger of The Predecessor Centres to create OCE on April 1, 2004, OCE adopted common accounting policies where these policies varied within The Predecessor Centres. The adoption of common policies and the conforming impact are as follows:

#### (i) Revenue recognition:

OCE adopted the deferral method of accounting for contributions. As a result, the restricted funds of the joint projects are now treated as deferred other contributions and the balances at March 31, 2004 of \$441,658 were reclassified.

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 1. Significant accounting policies (continued):

#### (ii) Loans receivable:

OCE adopted the policy of valuing loans receivable at nominal value due to the uncertainty in the future performance and viability of the underlying companies. As a result, the balance at March 31, 2004 was reduced from \$600,000 to \$4.

#### (iii) Investments:

OCE values investments at a nominal amount due to the uncertainty in the future performance and viability of the underlying companies. As a result, the balance at March 31, 2004 was reduced from \$454,280 to \$22.

#### (iv) Capital assets:

OCE adopted a common depreciation policy. The adoption of this policy did not impact the opening balances and did not result in a material change to the annual depreciation expense.

The accounting principles of OCE conform to accounting principles generally accepted for notfor-profit organizations. Significant accounting policies adopted by OCE are summarized as follows:

#### (a) Revenue recognition:

OCE funds various research projects and activities out of funds received as grant revenue from MEDT and from industry and other contributions. OCE follows the deferral method of accounting for contributions. Restricted contributions are recognized as revenue in the period in which the related expenses are incurred. Expenses are first applied against MEDT grant revenue based on budgeted project costs. Contributions for the purchase of capital assets are deferred and amortized into revenue on a straight-line basis at a rate corresponding with the depreciation rate for the related capital assets. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 1. Significant accounting policies (continued):

In-kind equipment donations are valued at their estimated fair value based on the information obtained from an independent appraiser. In accordance with the agreements for the joint projects, all equipment donated to the projects is the property of the universities. Therefore, in-kind equipment donations are recorded as a period expense.

#### (b) Cash and cash equivalents:

OCE considers all highly liquid investments with a remaining maturity of three months or less at the time of purchase to be cash and cash equivalents. These cash and cash equivalents consist primarily of interest bearing deposits. Investments with maturities from greater than three months to one year are classified as short-term investments. Cash and cash equivalents and short-term investments are stated at cost which approximates market value.

#### (c) Loans receivable:

Loans receivable, including interest accrued, are carried at a nominal value due to the uncertainty in the future performance and viability of the underlying companies.

#### (d) Investments:

Occasionally, OCE receives shares of non-affiliated companies, representing full or partial compensation to OCE under Technology Licensing Agreements concluded with such companies. These investments are recorded at nominal amounts due to the uncertainty in the future performance and viability of the underlying companies.

#### (e) Capital assets:

Purchased capital assets for the use by OCE are recorded at cost.

Depreciation and amortization are provided on a straight-line basis over their estimated useful lives as follows:

Computer equipment Furniture and fixtures Leasehold improvements 3 years 5 years Term of lease

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 1. Significant accounting policies (continued):

In accordance with the agreements with the universities, all research equipment purchased with OCE funds is the property of the university making the purchase. Therefore, research equipment purchased is recorded as a period expense.

#### (f) Deferred lease obligations:

Deferred lease obligations, including deferred lease inducements, are being amortized on a straight-line basis over the term of the lease as a charge to lease expense.

#### (g) Fair values of financial instruments:

The fair values of cash and cash equivalents, funds held in trust, accounts receivable, other receivables, accounts payable and accrued liabilities and trust funds payable approximate the carrying values due to the short-term maturities of these amounts.

The fair values of loans receivable and investments are not practicable to determine due to lack of available comparable market information.

#### (h) Income taxes:

OCE is a not-for-profit organization under the Income Tax Act (Canada) and, accordingly, is exempt from income taxes under Section 149 (I)(i) of the Income Tax Act (Canada).

#### (i) Use of estimates:

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates.

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 2. Grants receivable:

Grants receivable as at March 31, 2005 consist of the following amounts:

MEDT: General Joint projects ORDCF - Joint projects	\$ 8,150,000 614,330 747,116
	\$ 9,511,446

#### 3. Loans receivable:

Loans receivable are convertible secured debentures bearing interest at the prime lending rate set by HSBC Bank Canada plus 1% per annum, calculated monthly, with a maturity date three years from the date of agreement. In the event of a financing in excess of \$500,000, the outstanding loans and interest shall be deemed to have converted to common shares at a price per common share equal to the price paid by the investor.

The unrecorded accrued interest receivable is \$37,398 as at March 31, 2005 (2004 - \$5,526).

As at March 31, 2005, OCE held debentures in the following companies:

		20	05			04		
	F	ace value	Book va	alue	F	ace value	Book	value
Ten XC	\$	150,000	\$	1	\$	150,000	\$	1
Handshake		150,000		1		150,000		1
Okulus		250,000		1		150,000		1
Hivva		250,000		1		150,000		1
Vital Sines		125,000		1		· –		
Intelwaves		150,000		1		_		_
Iplay Media		250,000		1		_		_
CHIL Systems		250,000		1				_
Geo Tango		250,000		1		_		_
	\$	1,825,000	\$	9	\$	600,000	\$	4

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 4. Investments:

Occasionally, OCE receives shares of non-affiliated companies, representing full or partial compensation to OCE under Technology Licensing Agreements concluded with such companies. These investments are recorded at nominal amounts.

#### 5. Capital assets:

	 			 2005	 2004
			ccumulated epreciation and	Net book	Net book
	 Cost	а	mortization	 value	 value
Computer equipment Furniture and fixtures Leasehold improvements	\$ 592,978 747,232 219,944	\$	424,603 556,409 29,028	\$ 168,375 190,823 190,916	\$ 110,329 130,355 –
	\$ 1,560,154	\$	1,010,040	\$ 550,114	\$ 240,684

#### 6. Deferred grant revenue:

Deferred grant revenue represents unspent government funds from MEDT which are for externally restricted operations representing funding received during the current year that is related to subsequent years' operations.

Deferred grant revenue, beginning of year Grant revenue received Amount recognized as revenue	\$ 4,329,471 32,319,825 (32,325,222)
Deferred grant revenue, end of year	\$ 4,324,074

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 7. Deferred industry contributions:

Deferred industry contributions include committed but unspent industry funds which are for externally restricted operations representing funding received during the current year that is related to subsequent years' operations.

Deferred industry contributions, beginning of year Contributions received Contributions recognized as revenue	\$ 941,899 2,771,602 (1,568,863)
Deferred industry contributions, end of year	\$ 2,144,638

#### 8. Deferred other contributions:

Deferred other contributions include committed but unspent government and other funds which are restricted for the joint university and college projects representing funding received during the current year that is related to subsequent years' operations.

Deferred other contributions, beginning of year Contributions received Contributions recognized as revenue	•	1,271,647 2,780,023 (3,756,879)
Deferred other contributions, end of year	\$	294,791

#### 9. Deferred lease obligations:

Deferred lease obligations represent escalating lease payments and the value of the benefits obtained by OCE as a result of a rent-free period and leasehold inducements made by the lessor as inducements to enter into a long-term lease agreement.

The components of deferred lease obligations are as follows:

Leasehold inducements Rent-free period and escalating lease payments	\$ 142,037 61,269
	203,306
Less accumulated amortization	9,469
	\$ 193,837

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 10. Joint university and college projects:

(a) Emerging Materials Knowledge Program ("EMK"):

Effective April 1, 2002, OCE began administering EMK, as stipulated within an agreement set out between the Ministry of Enterprise, Opportunity and Innovation and OCE. EMK operates as a joint university/industry consortium for leading edge research in the field of emerging materials.

OCE has an agreement with the Province of Ontario (the "Province"), whereby the Province, through the Ontario Research and Development Challenge Fund ("ORDCF") program will provide funds not to exceed \$6,864,000 over a five-year period ending March 31, 2007. The EMK network currently consists of OCE, nine Ontario universities and nine companies dedicated to realizing the commercial potential of emerging materials.

Financial support totalling \$2.5 million from sources other than provincial grants have been committed from OCE to the EMK program commencing April 1, 2002. The support will be provided over five years in equal amounts of \$500,000.

(b) Advanced Design and Manufacturing Institute ("ADMI"):

ADMI is an organization created through the partnership of five leading Ontario universities and OCE. ADMI assists these universities and industry to pool key academic and industrial resources to offer a program leading to a Masters Degree in Engineering, Design, Manufacturing and Management. Funding for the organization is provided partly by the participating organizations, and the remainder is generated via course fees.

(c) Centre for Microelectronics Assembly and Packaging ("CMAP"):

Effective August 1, 2003, OCE, on behalf of the CMAP, assumed from the University of Toronto the role of administrative institution. The original contract with the ORDCF was from August 1, 1999 to December 31, 2004 with total funds not to exceed \$3,598,672. OCE has received approval to extend the project to January 31, 2007 under the same funding terms. CMAP operates as a joint university/industry consortium. The network currently consists of OCE, three Ontario universities and five companies.

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 10. Joint university and college projects (continued):

(d) Photonics Education and Training for Critical Skills Shortages ("PET"):

PET is a joint venture formed on April 14, 2000 between OCE, the Algonquin College of Applied Arts ("Algonquin") and the Niagara College of Applied Arts and Technology ("Niagara"). OCE receives funds from MEDT on behalf of PET and distributes these funds to the joint ventures.

Donations of equipment initiated by OCE for the PET program are recorded in the financial statements.

(e) Advanced Learning in Photonics for Manufacturing and Biotechnology Applications ("PAL"):

Effective November 13, 2003, a collaborative partnership was created between OCE, Niagara and Algonquin and the Province. The Province, represented by MEDT, will provide funds not to exceed \$2,660,325 over a five-year period. Niagara, Algonquin and OCE are collectively responsible for the establishment, management and operation of PAL that will provide training opportunities for photonics-related skills in Ontario.

OCE is to receive funds from MEDT on behalf of PAL and distributes these funds to the partners. As of March 31, 2005, an outstanding instalment of \$614,330 has been accrued as receivable and \$582,020 has been accrued as a liability to the partners.

Donations of equipment initiated by OCE for the PAL program are recorded in the financial statements.

#### 11. Canadian Energy Partnership for Environmental Innovation ("CEPEI"):

CEPEI is an OCE program that is financed by approximately a dozen firms in the natural gas industry. The companies govern the program through the Environmental Technology Advisory Group ("ETAG"), which is made up of representatives of the companies. OCE collects funds contributed by the companies, holds the funds in trust, and expends them under the direction of the ETAG. OCE retains JTU Consulting Inc. to mange the program on behalf of the ETAG. During 2005, no OCE funds were expended as part of the CEPEI program.

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 12. Unrestricted fund balances:

Unrestricted funds represent accumulated income (net) from other than government grants and industry contributions and include interest income and income from other miscellaneous sources. The unrestricted funds are dedicated to OCE's ongoing programs.

#### 13. Commitments and contingency:

(a) Future minimum lease payments under operating leases are as follows:

2006	\$ 628,108
2007	655,308
2008	574,257
2009	193,144
2010	163,333
2011	63,535
	\$ 2,277,685

(b) OCE receives funding from MEDT. The agreement with MEDT states that these funds be placed in an interest bearing account and that all interest earned on these funds shall be used only for the purposes authorized by MEDT. Based on past practice, OCE has not deferred these funds, but rather taken them into income as earned, applying the income against current expenses.

#### 14. Statement of cash flows:

The change in non-cash operating working capital consists of the following:

Decrees in accounts receivable	<b>o</b>	420.050
Decrease in accounts receivable	\$	430,959
Increase in grants receivable		(7,957,480)
Decrease in prepaid expenses		276,970
Increase in accounts payable and accrued liabilities		1,158,881
Decrease in deferred grant revenue		(5,397)
Increase in deferred industry contributions		1,202,739
Decrease in deferred other contributions		(976,856)
	\$	(5,870,184)

Notes to Financial Statements (continued)

Year ended March 31, 2005

#### 15. Pension plan:

OCE operates a defined contribution pension plan. The assets of the plan are held separately from those of OCE in an independently administered fund. The pension expense is equal to the contributions paid by OCE.

The contributions paid and expensed by OCE for the year amounted to \$248,273.

#### 16. Comparative figures:

Certain comparative figures have been reclassified to conform with the financial statement presentation adopted in the current year.



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