Results-based Plan Briefing Book 2011-12

Ministry of Research and Innovation

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Ministry of Research and Innovation

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Table of Contents

PART I: Published Results-based Plan 2011-12

MINISTRY OVERVIEW

Innovation is key to creating a strong economy that creates jobs and protects education and health care. Fostering an innovation-driven, globally competitive economy is a priority for Ontario and a vital component of the Open Ontario plan.

Launched in 2005, the Ministry of Research and Innovation (MRI) is focused on strengthening Ontario as a leading, innovation-based economy that creates new jobs and opportunities for families. The ministry invests in and supports research, innovation and commercialization projects and partnerships across the province, collaborating with colleges, research hospitals, universities, private sector entities and other governments.

Ministry Mandate

The ministry mandate is to foster a culture of innovation, make Ontario an innovation leader and to showcase the Province, nationally and internationally, as a place where innovation is a priority.

Strategic Direction: Ontario's Innovation Agenda

In April 2008, the ministry launched **Ontario's Innovation Agenda**, a $3.2-billion strategy to make innovation a driving force of the Ontario economy. The Agenda lays the foundation to implement and deliver important government initiatives that support a strong, innovative economy and good jobs for Ontario families.

In 2011, Ontario's Innovation Agenda will continue to improve Ontario's productivity, competitiveness and prosperity by strengthening the pathways that connect researchers, businesses, and global markets.

The Innovation Agenda will guide investments in areas where Ontario is or will be identified as a global leader. Ontario's areas of focus include: the bio-economy and clean technologies, advanced health technologies, pharmaceutical research and manufacturing, and digital media, and information and communications technologies.

Ministry Priorities

Ontario's Innovation Agenda will guide the ministry's investments and work in the following areas for 2011-12 to generate high growth firms and jobs for the future:

- Building a world-class innovation network with global leadership potential;
- Supporting research to develop talent and generate new ideas;
- Getting ideas to market faster by supporting innovative entrepreneurs and high-growth companies; and
- Revitalizing venture capital to drive innovation and ensure global competitiveness.

Building a World-Class Innovation Network with Global Leadership Potential

The **Ontario Network of Excellence** (ONE) continues to play a critical role in the delivery of Ontario's Innovation Agenda at the regional level, where innovation takes place between innovative people and high-growth firms.

In 2010, the ministry launched 14 Regional Innovation Centres across the province that function as the primary service delivery agents for the ONE. The 14 Centres are:

> The Ontario Network of Excellence (ONE) is Ontario's revitalized, client-focused, province-wide innovation network.
>
> ONE supports start-ups, emerging growth companies, small and medium-sized enterprises, and large domestic and multi-national enterprises — that wish to pursue innovation to create a global competitive advantage and new wealth in Ontario.

- Communitech Technology Association (Waterloo);
- Innovation Durham Northumberland (Durham);
- Eastern Lake Ontario Regional Innovation Network (Kingston);
- Guelph Innovation Centre (Guelph);
- Halton Regional Innovation Centre (Halton);
- Innovation Factory (Kingston);
- MaRS Discovery District (Toronto);
- Niagara Interactive Media Generator (nGen) (St. Catharines);
- Northern Technology Alliance (Northern Ontario);
- Ottawa Centre for Research & Innovation (OCRI) (Ottawa);
- Research Innovation Commercialization Centre (Mississauga);
- WEtech Alliance (Windsor);
- TechAlliance of Southwestern Ontario (London); and
- ventureLAB (York).

ONE delivers a full suite of programs and services, which include:

- **Business acceleration programs and services:** A continuum of programs and services to help strengthen entrepreneurial talent, create globally competitive businesses and support innovators as they deal with all the challenges and opportunities that come with building an innovative enterprise; and
- **Industry-academic collaboration programs and services:** Programs and services to accelerate the movement of world-class research discoveries from Ontario's labs to the global marketplace, to support industry-academic collaboration on technical research challenges with existing research institutions (e.g. colleges, universities and hospitals), and to develop talent by cultivating entrepreneurial skills and business skills, and providing real world experience for Ontario's next generation of innovators.

In 2011, the ministry will continue to develop and broaden the ONE, primarily through the integration of the Colleges Ontario Network for Industry Innovation, the National Angel Organization – Ontario and numerous Sector Innovation Centres.

Harnessing the value from all components of Ontario's innovation system, ONE helps local talent to:

- Bridge the gap between discovery and market-ready products;
- Launch new products and services to global markets; and
- Build globally-focused, investor-ready companies.

In total, there are almost 150 organizations and more than 1,100 commercialization experts, business and community leaders, and investors from across the province focused on transforming new research and new ideas into tomorrow's technologies, products and services.

Announced in 2010, the **Ontario Brain Institute (OBI)** is an MRI-funded, independent, not-for-profit organization established to become an internationally recognized centre for excellence in brain research, translation and innovation. Capitalizing on the ongoing revolutions in brain science, the OBI aims to harness Ontario's impressive strengths in brain research and medicine to achieve health, social and economic impact. MRI is investing $15 million over 3 years beginning in fiscal 2010-11 to support the operation of OBI.

Supporting Research to Develop Talent and Generate New Ideas

The foundation of Ontario's innovation network is the talented people and their ideas. The Ministry of Research and Innovation supports a number of initiatives that foster world-class research and talent development at Ontario's universities, colleges and hospitals.

The **Ontario Research Fund - Research Excellence Program (ORF-RE)** provides researchers with the support to undertake cutting-edge research. It promotes research excellence in Ontario by supporting transformative, internationally significant research of strategic value to the province. The ORF-RE focuses on scientific excellence and strong commercialization and targets new, leading-edge research initiatives – while fostering and celebrating innovation through its outreach activities.

Since 2006-07, MRI invested $368.6 million in ORF-RE to support 91 leading-edge research projects across the province, leveraging $737.2 million from over 430 industry, institutional and federal partners.

Through ORF-RE, a special **Global Leadership Round in Genomics and Life**

In 2010-11, MRI announced an ORF-RE investment of $11.5 million to support the Ontario Consortium for Regeneration Inducing Therapeutics, led by Dr. Mick Bhatia at McMaster University.

Dr. Bhatia is committed to making Ontario a leader in human stem cell-based drug discovery. Dr. Bhatia's focus is on identifying chemical means to activate the regenerative process of stem cells and develop new medicines able to repair the damage done by cancer and other tissue/organ related diseases.

Sciences (GL^2) competition was held in 2009-10 to support basic and applied genomics and gene-related research at Ontario's universities, hospitals and other research institutions.

GL^2 supports the creation of new knowledge to drive innovation by focusing investments in leading-edge, large-scale genomics and gene-related research initiatives.

In April 2010, MRI announced an investment of over $115 million in 19 leading-edge research projects. Researchers on these projects are working to discover new therapies and technologies that will help people live healthier lives, as well as protect the environment and biodiversity.

The **Ontario Research Fund – Research Infrastructure Program (ORF-RI)** ensures researchers have the funds to invest in state-of-the art equipment and facilities. By providing researchers with access to necessary equipment, Ontario research institutions are able to attract the best talent and create essential capacity to conduct world-leading research.

Since 2004-05, MRI has invested approximately $593.8 million to cover the infrastructure costs of 1,264 leading-edge research projects across the province. ORF-RI is also leveraging nearly $1.4 billion from the federal government and institutional partners.

Early Researcher Awards To date, MRI has committed $79.5 million to 568 recently appointed researchers to help them build their teams and support them early in their careers. Each researcher receives up to $140,000 from MRI, with a $50,000 match by the researcher's institution. Since 2003, Early Researcher Awards winners have engaged over 61,494 youth through 596 outreach events.

Post-Doctoral Fellowships To date, MRI has committed $12.3 million in Post-Doctoral Fellowships to support 247 fellows across Ontario. The program recruits and retains outstanding young scientists to spend two years as post-doctoral fellows in Ontario research institutions. For each fellow, institutions receive $25,000 per year for two years from MRI, matched by the institution.

Youth Outreach Programs Since 2005-06, MRI has invested $5.2 million in 42 Youth Science and Technology Outreach Program projects and 34 Teachers Science and Technology Outreach projects to help youth and teachers experience science under the mentorship of Ontario's leading researchers.

Ontario Institute for Cancer Research (OICR) is an MRI-funded, independent, not-for-profit organization undertaking ground-breaking research into the causes and treatments of cancer. In total, MRI invested $357 million over OICR's first five years to support the operating and capital costs of OICR. In 2010-11, OICR launched a $20 million

The **OICR** made an investment in March 2011 to accelerate commercialization of a potentially revolutionary high-throughput screening technology directed at the discovery of anticancer drugs. The technology, Smart Well Plate™, developed at the University of Toronto by Drs. Aaron Wheeler and Jeffrey Wrana, is a palm-sized device that utilizes digital microfluidics (DMF), a technique that allows manipulation of cells and tiny droplets of liquid on an open platform with no moving parts.

Dr. Wheeler is a recipient of the Early Researcher Awards and an ORF-RI, totaling $500,000. Dr. Wrana is the recipient of more than $6 million through the ORF-RE and ORF-RI programs.

Canadian research project to decode the prostate cancer genome. With funding support from Prostate Cancer Canada, OICR researchers will use precise genetic information from patients to personalize their prostate cancer diagnosis and treatment. This research will help physicians in determining which patients require intensive therapies and which patients will benefit from careful monitoring.

Supporting Innovative Entrepreneurs and High-Growth Companies

In addition to the supports available through ONE, the Ministry of Research and Innovation delivers a number of initiatives that help entrepreneurs and companies with high-growth potential transform leading ideas and discoveries into tomorrow's technologies, products and services. Supporting high-growth firms leads to job creation in Ontario. A recent economic study identified that, between 1993 and 2003, high-growth firms accounted for only 4 per cent of businesses in Canada but were responsible for 45 per cent of net jobs created.

In 2010-11, the Ontario government created the **Water Technology Acceleration Project (WaterTAP)**, a 3 year, $5 million initiative that will promote the development of Ontario's water and wastewater sectors. WaterTAP will help increase their capacity to develop, test, demonstrate and commercialize innovative water technologies and services, as well as help to expand their business opportunities nationally and internationally. WaterTAP will capitalize on the momentum in Ontario's water sector and support water technology companies so they grow, expand and export their 'made-in-Ontario' expertise. It will also provide a forum for governments, the private sector and academic institutions to exchange information and ideas on how to make Ontario a leading jurisdiction in the development and commercialization of water technology.

Key milestones for the current fiscal year include the establishment of WaterTAP's Board of Directors and the execution of various agreements with the ministry to begin operations.

The **Innovation Demonstration Fund (IDF)** was announced in 2006 to help companies develop promising environmental, alternative energy, bio-products, hydrogen and other globally significant technologies at the pilot stage of development. To date, MRI has funded 20 innovative Ontario companies which will lead the next generation of innovative projects.

The **Ontario Network of Excellence (ONE)** includes the MaRS Discovery District, the Ontario Centres of Excellence, and 14 Regional Innovation Centres and provides access to over 400 "commercialization experts" located throughout the province who help entrepreneurs and technology-based companies to launch and grow their businesses.

Spun out of the University of Toronto's Institute for Optical Sciences, **Vive Nano** is an award-winning company that has developed an environmentally-friendly process for creating products and materials using nanotechnology.

The $3.8 million in IDF funding is helping the company build a pilot plant, refine its processes and come to full production levels. The company is creating 19 new high-skill jobs over the next two years, including chemists, technicians, engineers, project managers and a controller.

From 2007-10, ONE helped more than 2,000 clients to:

- Leverage more than $530 million in private investment and more than $144 million in public investment;
- Create/retain more than 25,000 jobs;
- Protect over 5,700 new ideas through licenses, disclosures, patents and copyrights;
- Develop over 2,100 prototypes;
- Bring more than 1,200 products and services to market;
- Facilitate over 9,500 industry-research partnerships; and
- Sell to more than 9,800 new customers.

Business Ecosystem Support Fund supports sophisticated industry – academic partnerships that will accelerate product development in emerging global markets. In 2009-10 and early 2010-11, the ministry launched 4 new innovation centres:

- $13.6 million to GreenCentre Canada to develop the next generation of green industrial products;
- $9.3 million to Coral CEA to help Ontario companies compete in the global Communications Enabled Applications market, which provides the next generation of efficiency tools for a host of industrial applications;
- $26.4 million to The Communitech Hub: Digital Media and Mobile Accelerator to ensure Ontario maintains a leadership position in the rapidly growing market for digital media and mobile computing applications, across a range of industries; and
- $21 million in The Health Technology Exchange (HTX), which will help HTX partner with innovative companies, research institutions and health providers to develop cutting-edge medical and assistive technologies that can be marketed to the world.

The **Ontario Tax Exemption for Commercialization** was announced in 2008 to support newly established corporations in priority areas by encouraging the commercialization of intellectual property developed at qualifying Canadian universities and colleges. The program offers a refund of corporate income tax and corporate minimum tax paid for a qualifying corporation’s first ten taxation years.

Revitalizing Venture Capital to Drive Innovation and Ensure Global Competitiveness

Venture capital is a critical ingredient to fuel Ontario’s high-growth firms that create high quality jobs. The Ministry of Research and Innovation is helping high-growth start-up companies access the capital needed to continue growing their business and creating jobs across Ontario. The ministry has established three market-based initiatives to leverage the private sectors investment capacity.

<u>The Ontario Emerging Technologies Fund (OETF)</u> is a direct co-investment Fund established by the Province of Ontario in 2009. The OETF will invest $250 million over seven years alongside qualified investors into innovative, high-growth, private Ontario companies. The Fund is managed by the Ontario Capital Growth Corporation (OCGC), an agency of the Ontario Ministry of Research and Innovation. To date, the OCGC through the OETF, has approved investments of approximately $34.8 million in 16 Ontario-based technology companies: Avvasi Inc., B5 Media, Bering Media Inc., Covarity Precision Inc., Ecobee Inc., Energate, evandtech, iStopOver, Morega, Natrix Separations, Neuraxon, Peraso, Shoplogix, TeloIP, Verold, and Woodland Biofuels**.**

<u>Ontario Venture Capital Fund (OVCF)</u> In 2007-08, Ontario secured commitments from the Ontario Municipal Employee Retirement System, the Royal Bank of Canada, the Business Development Bank of Canada and Manulife Financial to lever Ontario's $90 million initial investment into a $205 million Ontario Venture Capital Fund. Ontario's funds are held by the Ontario Capital Growth Corporation. The Fund is managed by Northleaf Capital (formerly TD Private Equity) on behalf of the limited partners, including Ontario. To date, the OVCF's Fund Manager, Northleaf Capital, has made investments totaling approximately $20 million into two Ontario-based funds run by Georgian Partners, XPV Capital Corporation. The OVCF has also made two direct co-investments into Ontario companies, I Love Rewards and BlueCat Networks.

> In June 2009, **OVCF** made its first direct co-investment of $1.8 million in I Love Rewards, an Ontario web-based provider of employee rewards and recognition, sales incentive and service award programs.
>
> Founded by Razor Suleman, I Love Rewards works with top employers in North America to recruit, retain and inspire employees. It is working towards becoming a global leader in the $47-billion rewards and recognition industry.
>
> It has been named one of the 50 best small and medium-sized companies to work for in Canada; the GTA's Top Employers for 2007, 2008 and 2009; and Canada's Top 100 Employers for 2007 and 2008.

<u>Investment Accelerator Fund (IAF)</u> The IAF helps accelerate the growth of new technology companies being established in Ontario and positions them for further investment by angels and venture capitalists. The Fund invests up to $500,000 in companies that have the potential to be global leaders in their field and provide sustainable economic benefits to Ontario. The IAF has invested a total of $19 million in 34 early stage companies. These companies have received a total of $59.9 million in private follow-on investment.

Ministry Contributions to Key Priorities & Results

PRIORITIES

Strong Economy
Strong People
Growing Jobs

STRATEGIS

- Building a world-class innovation network
- Supporting research to develop talent and generate new ideas
- Getting ideas to market faster by supporting innovative entrepreneurs and high-growth companies
- Revitalizing venture capital

KEY RESULTS

- Leveraged dollars in partnerships with private sector, federal government and research & innovation and commercialization institutions.

Innovation and Commercialization

Science and Research

MAJOR ACTIVITIES

Innovation and Commercialization:

- Innovation Demonstration Fund
- Ontario Network of Excellence
- WaterTAP
- Centre for Research and Innovation in the Bio-economy
- Ontario Emerging Technologies Fund
- Ontario Venture Capital Fund
- Investment Accelerator Fund
- Social Innovation Generation
- Business Ecosystem Support Fund
- International Events such as BIO
- GreenFIT
- Green Schools Pilot I
- Life Sciences & Commercialization Strategy

Science and Research:

- Ontario Research Fund
  - Research Excellence
  - Research Infrastructure
- Ontario Institute for Cancer Research
- Research Talent Programs
  - Early Researcher Awards
  - Post-Doctoral Fellowship Program
  - Ontario Water Innovation Award
- Science & Technology Connections & Partnerships
- International Collaborations

LOOKING AHEAD

As the ministry moves through 2011-12, MRI will focus on implementing the Ontario Innovation Agenda and further broadening the Ontario Network of Excellence (ONE), continuing the success of ongoing programs and initiatives and delivering on program and legislative commitments.

2011 Budget: A Continued Commitment to Innovation

The 2011 Budget demonstrates Ontario's continued commitment to innovation as a platform that supports the government's Open Ontario plan to accelerate Ontario's transformation to an innovation-driven economy,

The ministry will continue to roll out the multi-year Ontario Innovation Agenda – and all programs will continue to work with the ONE network to implement targeted programs that foster entrepreneurial business innovation.

Social Innovation Strategy: Pursuing Partnerships with Social Enterprise

Ontario families want government to continue deliver the services they value more effectively, without putting additional pressures on the public purse.

It's a challenge that has brought together three Ontario ministries. The Ministry of Research and Innovation, along with the Ministry of Children and Youth Services (MCYS) and the Ministry of Citizenship and Immigration (MCI) have begun to develop a social innovation strategy that will transform the way government works.

What is social innovation? Social innovations are systems-changing. They alter the perceptions, behaviours and structures that give rise to social challenges, challenges that government has typically been exclusively responsible for addressing.

Simply put - social innovation is about leveraging assets and ideas that allow organizations to augment their revenues and increase their ability, intellectual property and assets to generate new revenue, create more capacity, and address social challenges alongside government.

The three ministries are bringing together policy makers, business-leaders, and not-for-profit stakeholders to build a social innovation policy toolkit. Over the past few years, a wide variety of recommendations have been submitted to the government to help build social innovation capacity. Recommendations both inside and outside of government have been broad and evolving and have ranged from social finance, to digital media for social benefit, to new corporate forms, to a wide array of tools for municipalities. Our goal is to work with stakeholders to build a toolkit that works for Ontario - a tool kit that will enable social innovators to pursue social benefit goals while also creating economic value in the province.

This approach does not suggest government is handing off its responsibilities to address social challenges to the private and non-profit sectors. In fact, by fostering social innovation, we are leveraging taxpayer dollars to create more capacity to deliver services to the greatest social benefit.

Ontario's Water Strategy

In 2010, the government set a goal to make the province a North American leader in the development and sale of new technologies and services for water conservation and treatment.

Several programs supporting the initiatives under the *Water Opportunities and Water Conservation Act, 2010* are underway or in development.

The Water Strategy also encourages innovation and commercialization in the water sector:

- The **Innovation Demonstration Fund Water Round** supports the demonstration of new water and waste water technologies that can be exported to customers around the world.
- The **Ontario Research Fund - Research Excellence Program**, which includes a focus on the development of water-related solutions, recently concluded a competition for research projects in water and wastewater technologies.
- The **Ontario Water Innovation Award** recognizes the excellence, leadership, entrepreneurship and outstanding performance in a company that is developing a commercially successful water technology related to the conservation and/or treatment of water.

Creating a World-leading Water Hub

The *Water Opportunities and Water Conservation Act, 2010* was passed in November 2010.

It will encourage the creation and export of innovative clean water technologies, promote water conservation and attract economic opportunities in the province.

The Act enables the creation of the Water Technology Acceleration Project (WaterTAP), a technology hub bringing together industry, academia and government to develop the sector and promote it abroad.

The Act enables the government to set water efficiency standards, encourage water efficiency across public agencies and require water conservation plans for institutions in the broader public sector.

Expanding Ontario's Perimeter Institute

The Budget will provide an additional $50 million over 10 years to the **Perimeter Institute**, which has established Ontario as a leading global centre of theoretical physics, attracting Professor Stephen Hawking as a Distinguished Research Chair.

> "Perimeter's chosen scientific focus, connecting quantum theory and space time, is central to new insights which are emerging, concerning not only black holes and the beginning of the universe, but also nuclear and particle physics, quantum computers, and the science of new materials. Perimeter is a grand experiment in theoretical physics. I am hoping, and expecting, great things will happen here."
>
> *Prof. Stephen Hawking, Distinguished Research Chair, Perimeter Institute, Waterloo*

As part of the Province's measures to deliver better value for money by reducing waste, eliminating duplication, strengthening oversight and finding more cost savings, MRI will be streamlining research talent and business support programs to save $76 million over the next three years. This includes discontinuing the Premier's Discovery and Catalyst Awards as announced by the Minister of Finance in December 2010.

APPENDIX 1: HIGHLIGHTS OF ACHIEVEMENTS FROM 2010-11

The Ministry of Research and Innovation has a clear focus on the government's commitment to innovation as a catalyst for economic growth across all sectors of the economy.

Building the Foundation for Innovation: The Ontario Innovation Agenda

In April 2008, the ministry launched **Ontario's Innovation Agenda**, a $3.2-billion strategy to make innovation a driving force of the Ontario economy. The Agenda lays the foundation to implement and deliver important government initiatives that support a strong, innovative economy and good jobs for Ontario families.

Ontario's Innovation Agenda continues to improve Ontario's productivity, competitiveness and prosperity by strengthening the pathways that connect research, business and global markets.

The focus of the Agenda is to ignite growth in the industries that will shape our future and create Ontario's next generation of jobs and prosperity. It builds on this province's greatest strength – the talent and ingenuity of our people. The Agenda supports:

- Building a world-class innovation network with global leadership potential;

- Supporting research to develop talent and generate new ideas;
- Getting ideas to market faster by supporting innovative entrepreneurs and high-growth companies; and
- Revitalizing venture capital to drive innovation and ensure global competitiveness.

Driving Tomorrow's Innovation Economy Today: Priority Areas

The Innovation Agenda will guide investments in areas where Ontario is or will be identified as a global leader. Initial areas of focus include the bio-economy and clean technologies, advanced health technologies, pharmaceutical research and manufacturing, and digital media and information and communications technologies.

2010-11 Investments

- Bio-economy and clean technologies ($133.6 million);
- Advanced health technologies and pharmaceutical research ($305.4 million); and
- Digital media and information and communications technologies ($91.3 million).

Supporting Research to Develop Talent and Generate New Ideas

The foundation of Ontario's Innovation Network is the talented people and their ideas. The Ministry of Research and Innovation supports a number of initiatives that foster world-class research and talent development at Ontario's universities, colleges and hospitals.

The **Ontario Research Fund - Research Excellence Program (ORF-RE)** provides researchers with the support to undertake cutting-edge research. It promotes research excellence in Ontario and contributes to enhancing Ontario's business climate, skills and knowledge for innovation – while fostering and celebrating innovation through its outreach activities.

Since 2006-07, MRI has invested $368.6 million in ORF-RE to support 91 leading-edge research projects across the province, leveraging $737.2 million from over 430 industry, institutional and federal partners.

Through ORF-RE, a special **Global Leadership Round in Genomics and Life Sciences (GL^2)** competition was held in 2009-10 to support basic and applied genomics and gene-related research at Ontario's universities, hospitals and other research institutions.

GL^2 supports the creation of new knowledge to drive innovation by focusing investments in leading-edge, large-scale genomics and gene-related research initiatives.

In April 2010, MRI announced an investment of over $114.6 million in 19 leading-edge research projects. Researchers on these projects are working to discover new therapies and technologies that will help people live healthier lives, as well as protect the environment and biodiversity.

The **Ontario Research Fund – Research Infrastructure Program (ORF-RI)** ensures researchers have the funds to invest in state-of-the art equipment and facilities. By providing researchers with access to necessary equipment, Ontario research institutions are able to attract the best talent and create essential capacity to conduct world-leading research.

Since 2004-05, MRI has committed approximately $593.8 million to cover the infrastructure costs of 1,264 leading-edge research projects across the province. ORF-RI is also leveraging nearly $1.4 billion from the federal government and institutional partners.

The **Life Sciences Commercialization Strategy** was launched in April of 2010, and included:

- $7 million Investment Accelerator Fund - Life Science sidecar fund to enable a one-time special financing round exclusively for Ontario biotech companies; and

- Clinical trials related initiatives:

    1. Expanding capacity of the Population Health Research Institute in Hamilton to support the management of Phase IV trials on a global scale.
    2. Development of a new province-wide coordinating framework to streamline administrative processes and ethics reviews for multi-centre clinical trials. This would also include moving towards a common contract process.

Early Researcher Awards To date, MRI has committed $79.5 million to 568 recently appointed researchers to help them build their teams and support them early in their careers. Each researcher receives up to $140,000 from MRI, with a $50,000 match by the researcher's institution. Since 2003, Early Researcher Awards winners have engaged over 61,494 youth through 596 outreach events.

Post-Doctoral Fellowships To date, MRI has committed $12.3 million in Post-Doctoral Fellowships to support 247 fellows across Ontario. The program recruits and retains outstanding young scientists to spend two years as post-doctoral fellows in Ontario research institutions. For each fellow, institutions receive $25,000 per year for two years from MRI, matched by the institution.

International Strategic Opportunities Program (ISOP) provides funding for strategic international collaborations between Ontario research institutions and the global research community. The goal of the program is to improve Ontario's long-term economic potential by attracting and retaining the best and brightest research talent. Since 2005-06, ISOP has provided $4.1 million in funding to support 29 international research collaborations.

Ontario Institute for Cancer Research (OICR) is an MRI-funded, independent, not-for-profit organization undertaking ground-breaking research into the causes and treatments of cancer. In total, MRI has invested $357 million over OICR's first five years to support its operating and capital costs.

International Collaborations The ministry has entered into Memoranda of Understanding with several jurisdictions, including Israel, China, India and Singapore, with a total of $3.5 million in funding committed to promote joint research and commercialization activities. In 2011-12, MRI will continue to fund projects and activities under these agreements.

International Events The ministry attends key international events to showcase Ontario's strengths in key sectors, promote MRI programs, strengthen relationships with international partners and attract talent and investment. In 2011-12, MRI will build upon its success at past events, such as BIO, BIO Asia, the Quebec City Conference, and expand its reach through a comprehensive events plan.

Supporting Innovative Entrepreneurs and High-Growth Companies

In addition to the supports provided through ONE, the Ministry of Research and Innovation delivers a number of initiatives that help entrepreneurs and companies with high-growth potential transform leading ideas and discoveries into tomorrow's technologies, products and services.

The **Ontario Water Innovation Award** recognizes the excellence, leadership, entrepreneurship and outstanding performance in a company that is developing a commercially successful water technology related to the conservation and/or treatment of water.

The **Innovation Demonstration Fund** was launched in 2006 to help companies develop promising bio-based environmental and alternative energy technologies. To date, MRI has funded 20 innovative Ontario companies which will lead the next generation of innovative projects such as water current-power energy generation and new solar panel technologies.

The **Ontario Tax Exemption for Commercialization** was announced in 2008 to support newly established corporations in priority areas by encouraging the commercialization of intellectual property developed at qualifying Canadian universities and colleges. The program offers a refund of corporate income tax and corporate minimum tax paid for a qualifying corporation's first ten taxation years.

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- $26.4 million to The Communitech Hub: Digital Media and Mobile Accelerator to ensure Ontario maintains a leadership position in the rapidly growing market for digital media and mobile computing applications, across a range of industries; and
- $21 million in The Health Technology Exchange (HTX), which will help HTX partner with innovative companies, research institutions and health providers to develop cutting-edge medical and assistive technologies (MAT) that can be marketed to the world.

Revitalizing Venture Capital to Drive Innovation and Ensure Global Competitiveness

The Ministry of Research and Innovation is helping high-growth start-up companies access the capital needed to continue growing their business and creating jobs across Ontario. The ministry has established three market-based initiatives to leverage the private sectors investment capacity.

The Ontario Emerging Technologies Fund (OETF) is a direct co-investment Fund established by the Province of Ontario in 2009. The OETF will invest $250 million over five years, to a maximum of $50 million per year for each of the 5 years, to co-invest alongside qualified investors into innovative, high-growth, private, Ontario companies. The Fund is managed by the Ontario Capital Growth Corporation (OCGC), an agency of the Ontario Ministry of Research and Innovation. To date, the OCGC through the OETF has approved investments of approximately $34.8 million in 16 Ontario-based technology companies: Avvasi Inc., B5 Media, Bering Media Inc., Covarity Precision Inc., Ecobee Inc., Energate, evandtech, iStopOver, Morega, Natrix Separations, Neuraxon, Peraso, Shoplogix, TeloIP, Verold, and Woodland Biofuels.

Ontario Venture Capital Fund (OVCF) In 2007-08, Ontario secured commitments from the Ontario Municipal Employee Retirement System, the Royal Bank of Canada, the Business Development Bank of Canada and Manulife Financial to lever Ontario's $90 million initial investment into a $205.0 million Ontario Venture Capital Fund. Ontario's funds are held by the Ontario Capital Growth Corporation. The Fund is managed by Northleaf Capital (formerly TD Private Equity) on behalf of the limited partners, including Ontario. To date, the OVCF's Fund Manager, Northleaf Capital, has made investments totaling approximately $20 million into two Ontario-based funds run by Georgian Partners, XPV Capital Corporation. The OVCF has also made two direct co-investments into Ontario companies, I Love Rewards and BlueCat Networks.

Investment Accelerator Fund (IAF) helps accelerate the growth of new technology companies being established in Ontario and positions them for further investment by angels and venture capitalists. The Fund invests up to $500,000 in companies that have the potential to be global leaders in their field and provide sustainable economic benefits to Ontario. The IAF has invested a total of $19 million in 34 early stage companies. These companies have received a total of $59.9 million in private follow-on investments.

LOOKING AHEAD

As the ministry moves through 2011-12, the ministry will focus on accelerating the impact of the Ontario Network of Excellence, continuing the success of ongoing programs and initiatives, and delivering on program and legislative commitments.

LEGISLATION

The *Ontario Capital Growth Corporation Act, 2008* establishes the Ontario Capital Growth Corporation as a statutory corporation without share capital. The Act provides that the Corporation is an agent of the Crown in Right of Ontario. The Corporation fulfills Ontario's legal obligations as a limited partner in the Ontario Venture Capital Fund.

Ontario Regulation 278/09 made under the Ontario *Capital Growth Corporation Act, 2008* provides that the Corporation acquire, manage and otherwise deal with a portfolio of investments in businesses that the Corporation considers constitute emerging technology businesses. This portfolio is known in English as the Ontario Emerging Technologies Fund.

The Ontario Tax Exemption for Commercialization, administered jointly by MRI and the Ministry of Revenue, is a legislated program under the *Corporations Tax Act* and the *Taxation Act, 2007*. The Acts are the responsibility of the Ministry of Finance.

The *Water Opportunities and Water Conservation Act, 2010* was passed in November, 2010 and will encourage the creation and export of innovative clean water technologies, promote water conservation and attract economic opportunities in the province.

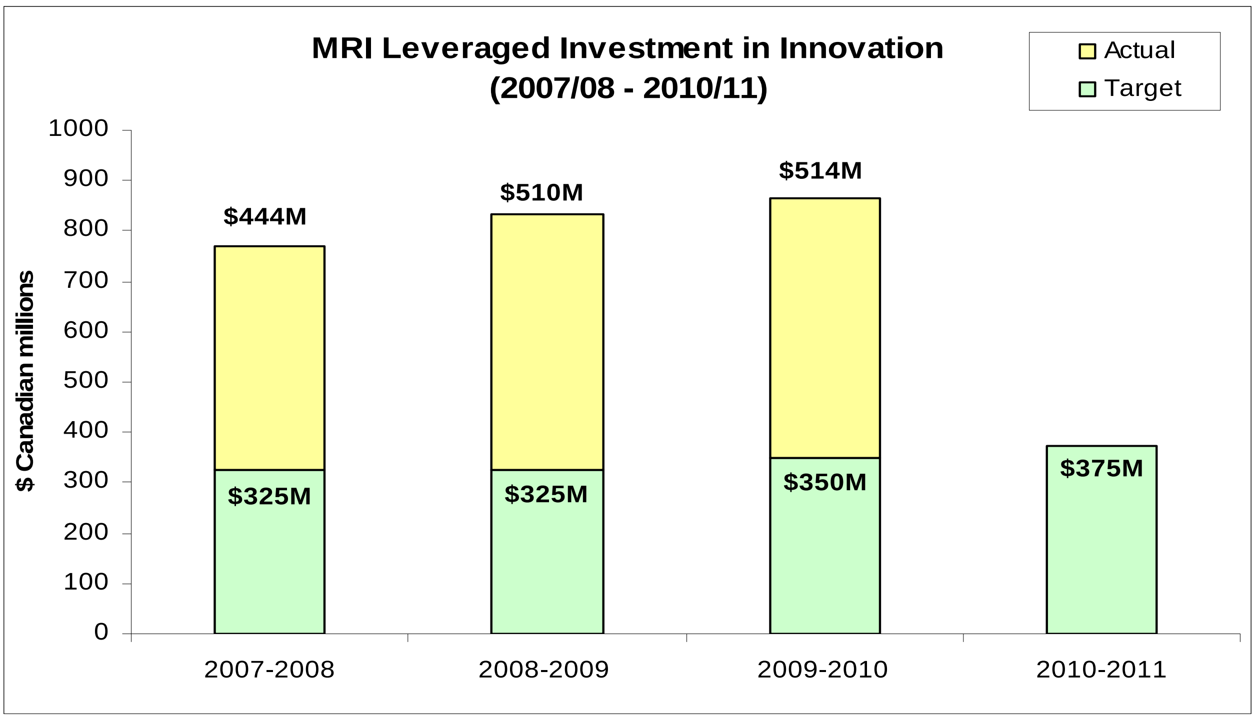
The Act enables the creation of the Water Technology Acceleration Project (WaterTAP), a technology hub bringing together industry, academia and government to develop the sector and promote it abroad.

In addition, it will also enable the government to set water efficiency standards, encourage water efficiency across public agencies, and require water conservation plans for institutions in the broader public sector.

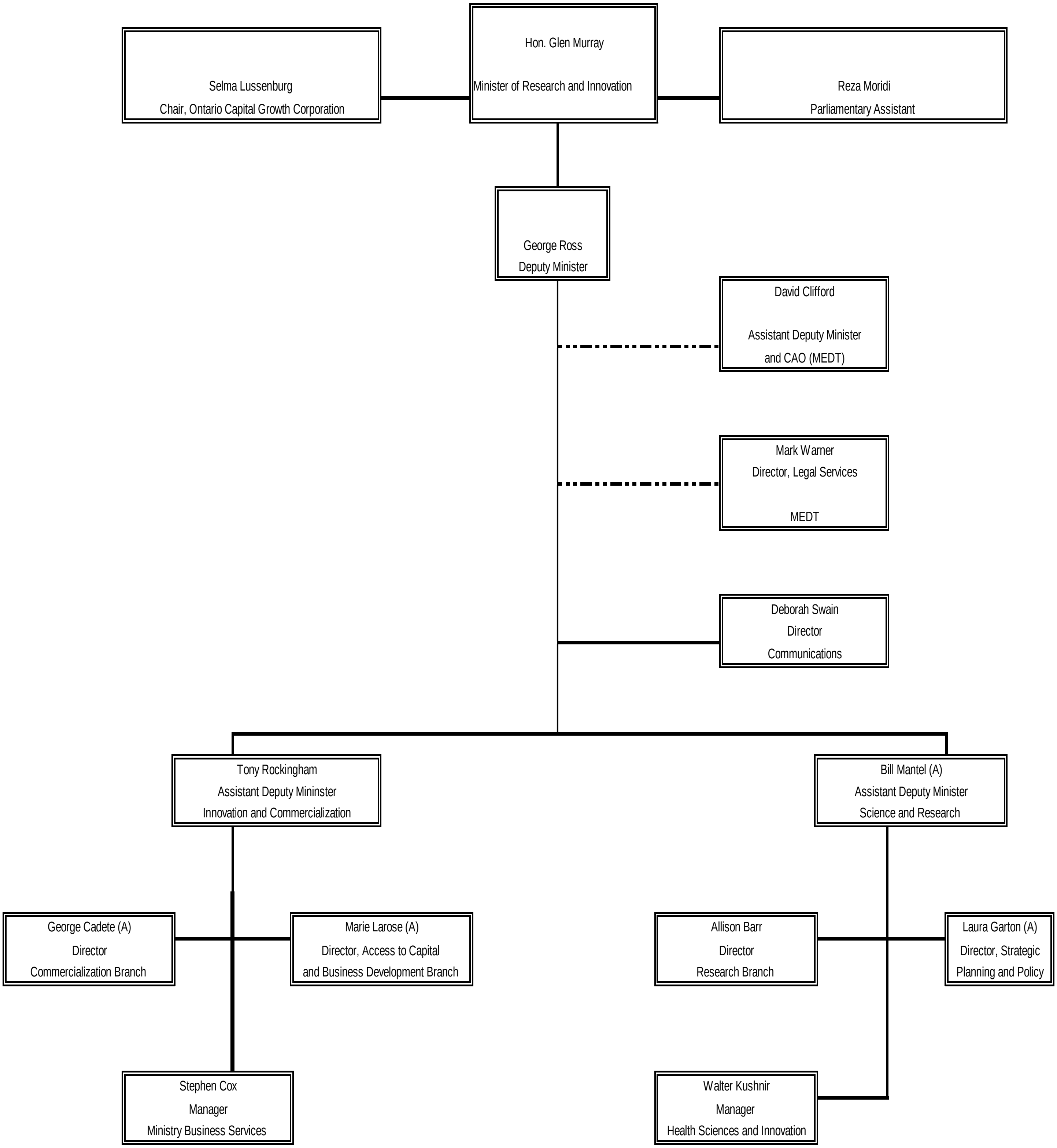
PERFORMANCE MEASURE

The ministry collects information on its activities through a series of performance measures including Leveraged Investment in Innovation. This measure provides information on the expected partner and matching investments in research and commercialization initiatives for which the ministry provides funding. It is a significant indicator as it illustrates the role that the ministry plays as a facilitator and generator of investments and participation by the private sector, the federal government and other parties in Ontario's research and commercialization initiatives.

Leveraged investment targets have been consistently exceeded each year. In 2009-10, leveraged investment was $514 million, $4 million more than in 2008-09 and $164 million above target.



MINISTRY ORGANIZATION CHART



AGENCIES, BOARDS AND COMMISSIONS (ABC'S)

Operating Agency

Ontario Capital Growth Corporation

The Ontario Capital Growth Corporation (OCGC or the Corporation) was established by the *Ontario Capital Growth Corporation Act, 2008.* The Act was proclaimed and in force as of February 1, 2009.

The interim Board of Directors is comprised mainly of public servants, who were appointed by the Lieutenant Governor in Council on February 4, 2009. In February 2011, Selma Lussenburg was appointed Chair.

The OCGC is an agent of the Crown and is classified as an operational enterprise agency. Under the Act, the Corporation's principal activities are to:

- Receive, hold, administer and otherwise deal with the interest of the Government of Ontario in the limited partnership known as the Ontario Venture Capital Fund LP;
- Acquire, manage and otherwise deal with a portfolio of investments in businesses that the Corporation considers constitute emerging technology businesses, which portfolio is known in English as the Ontario Emerging Technologies Fund; and
- Perform any additional objects specified by the Lieutenant Governor in Council.

Additional objects of the Corporation were added later in 2009 through Ontario Regulation 278/09 made under the *Ontario Capital Growth Corporation Act, 2008*.

The Corporation's fiscal year commences on April 1 in each year and ends on March 31 in the following year. The Board will submit an Annual Report on its affairs (including audited financial statements) to the Minister of Research and Innovation within 90 days after the end of each fiscal year.

Advisory Agencies

Ontario Research Fund Advisory Board

The Ontario Research Fund Advisory Board is an advisory Board that adjudicates applications to Ontario's research programs, which support research talent, infrastructure and operations. The Board makes recommendations to the Minister based on a project's merit and alignment with the respective program's goals and provides advice and assistance to the Minister as required.

The Board adjudicates applications for the Ontario Research Fund (ORF) and the Early Researcher Awards (ERA) Program. The ORF provides infrastructure, operating and overhead funds to support leading edge R&D in Ontario's research institutions. The ERA supports early career researchers with recognized potential.

PUBLISHED RESULTS-BASED PLAN 2011-12

MINISTRY FINANCIAL INFORMATION

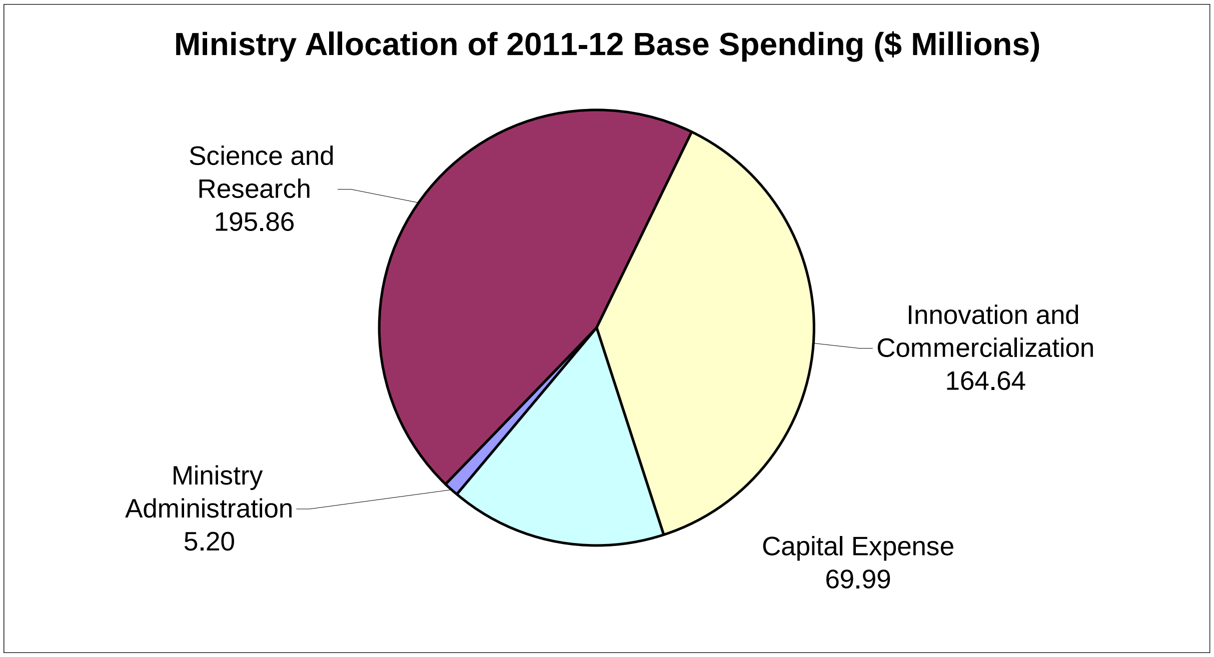


Table 1: Ministry Planned Expenditures 2011-12

Program Name	Ministry Planned Expenditures ($M)
Operating Expense *	
Ministry Administration	**5.2039**
Science and Research	**195.8575**
Innovation and Commercialization	**164.6426**
Total Operating Expense *	**365.7040**
Capital Expense *	**69.9860**
Total Operating and Capital Expense, Excluding Assets *	**435.6900**
Operating Assets	**4.3270**
Capital Assets	**0.0010**

***Excludes Consolidation Adjustments**

Table 2: Operating and Capital Summary by Vote

The ministry focuses its efforts on activities which support a stronger Ontario in the creation of jobs in today's and future economies by: implementing research and innovation policies and programs based on expert advice to ensure an agenda to deliver excellence, performance and results; working closely with our partner ministries to implement programs to achieve future social, environmental and economic benefits; and fostering a culture of innovation and showcasing Ontario, nationally and internationally, as an innovation-based economy and society.

The ministry's key priorities are: extracting value from Ontario's excellence in research and commercialization; focusing investment in areas where Ontario can be globally competitive; leveraging skills, knowledge, and funding; developing an innovation-friendly business climate; and enhancing the Ontario government's role as a catalyst for change.

Votes/Programs	Estimates 2011-12 $	Change from 2010-11 Estimates $	%	2010-11* Estimates $	2010-11* Interim Actuals $	Actuals 2009-10 $
OPERATING AND CAPITAL EXPENSE						
Research and Innovation Program	435,624,000	(20,079,400)	(4%)	455,703,400	413,463,691	384,062,889
Total Including Special Warrants	435,624,000	(20,079,400)	(4%)	455,703,400	413,463,691	384,062,889
Less: Special Warrants	-	-	-	-	-	-
Total To Be Voted	435,624,000	(20,079,400)	(4%)	455,703,400	413,463,691	384,062,889
Special Warrants	-	-	-	-	-	-
Statutory Appropriations	66,014	-	-	66,014	47,281	28,034
Net Consolidation Adjustment - Colleges	-	3,640,000	(100%)	(3,640,000)	(267,384)	(850,554)
Net Consolidation Adjustment - Hospitals	(26,287,400)	(7,887,400)	43%	(18,400,000)	(25,407,723)	(37,427,167)
Other Adjustment - Ontario Capital Growth Corporation	(39,895,600)			(22,200,000)	(22,279,000)	(8,161,582)
Ministry Total Operating and Capital	369,507,014	(42,022,400)	(10%)	411,529,414	365,556,865	337,651,620
OPERATING AND CAPITAL ASSETS						
Research and Innovation Program	4,328,000	(3,522,000)	(45%)	7,850,000	-	-
Total Assets To Be Voted	4,328,000	(3,522,000)	(45%)	7,850,000	-	-

*** Estimates for the previous year are restated to reflect any changes in ministry organization and/or program structure.**
Interim actuals reflect the numbers presented in the Ontario Budget.

Ministry Key Performance Results 2009-10

MRI performance results for its key measure for 2009-10:

- Leveraged investment targets have been consistently exceeded each year. In 2009-10, leveraged investment was $514 million, $4 million more than in 2008-09 and $164 million above target.

Table 3: Ministry Expenditures 2010-11

	Ministry Interim Actual Expenditures ($M)
Operating	**$304.4M**
Capital	**$61.1M**
Staff Strength (as of March 31, 2011)	**153.3**

GLOSSARY

ABC's	Agencies, Boards, and Commissions
BAP	Business Acceleration Program
BIP	Biopharmaceutical Investment Program
BIPMAC	Biopharmaceutical Investment Program Minister's Advisory Committee
BMEP	Business Mentorship and Entrepreneurship Program
ERA	Early Researcher Awards
GL2	Global Leadership Round in Genomics and Life Sciences
IACP	Industry-Academic Collaboration Program
IAF	Investment Accelerator Fund
IDF	Innovation Demonstration Fund
ISOP	International Strategic Opportunities Program
MaRS	MaRS Discovery District
MEDT	Ministry of Economic Development and Trade
MRI	Ministry of Research and Innovation
MRP	Market Readiness Program
NGOJF	Next Generation of Jobs Fund
OCE	Ontario Centres of Excellence
OCGC	Ontario Capital Growth Corporation
OCN	Ontario Commercialization Network
OCIF	Ontario Commercialization Investment Fund
ODOE	Other Direct Operating Expenditures
OICR	Ontario Institute for Cancer Research
OETF	Ontario Emerging Technologies Fund
OMERS	Ontario Municipal Employee Retirement System
ONE	Ontario Network of Excellence
ONEAB	Ontario Network of Excellence Advisory Board
ORF	Ontario Research Fund
ORF-RE	Ontario Research Fund – Research Excellence
ORF-RI	Ontario Research Fund – Research Infrastructure
OTEC	Ontario Tax Exemption for Commercialization
PCA	Premier's Catalyst Awards
OVCF	Ontario Venture Capital Fund
PDA	Premier's Discovery Awards
PDF	Post-Doctoral Fellowship
R&D	Research and Development
RIN	Regional Innovation Network
SME's	Small and Medium-Sized Enterprises
TRRA	Toronto Region Research Alliance
TSTOP	Teacher's Science and Technology Outreach Program
YSTOP	Youth Science and Technology Outreach Program