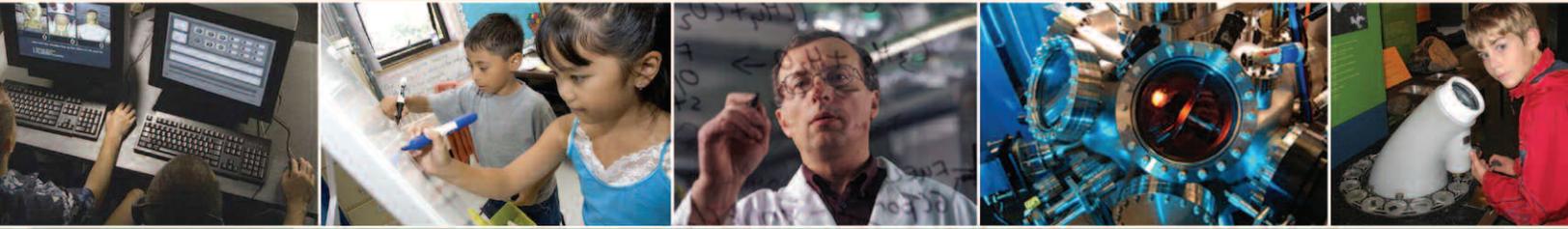


ONTARIO *INNOVATES*



Ministry of Research and Innovation

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Fast to innovate. Fast to build. Fast to market.

*A message from
Premier Dalton
McGuinty, Minister
of Research and
Innovation*



For the first time ever, there's a consensus among business, labour and government on what we need to do: merge the brilliance of inventors, the financial strength of investors, the courage of entrepreneurs and the legislative powers of all levels of government.

Welcome to our very first issue of *Ontario Innovates*!

We're living in an exciting era where ideas are springing to life faster than we can blink. Ideas like micro-imaging tools that can scan mice the way ultrasound machines scan humans. Or holographic advertising that brings posters to life. Or radio frequency identification technology that uses radio waves to automatically identify objects and people. These are just a few of the many creative new ideas conceived right here in the province we call home — ideas that will help keep us in the lead in the innovation race.

Our province has long been a springboard for innovation in the world. Consider our ground-breaking inventions with insulin, the first regulated pacemaker and, more recently, the BlackBerry. All have changed the quality of life for people everywhere. But, despite these success stories, we can't afford to be complacent.

In today's hyper-competitive global economy, it's not about the big overtaking the small. It's about the fast overtaking the slow. Organizations that move ideas to the marketplace fastest will be the economic leaders of tomorrow. That's why our government is bringing a unified approach to innovation.

To make that happen we need to begin a dialogue between these parties, a dialogue where ideas are shared, breakthroughs are celebrated and concerns are addressed. And *Ontario Innovates* is one forum our government is providing to ensure that conversation continues. We envision an even stronger and more prosperous Ontario, but we know it's going to take fresh ideas, investment and courage — and, for that, we need you.

Ontario Innovates will be published quarterly and will be available at www.ontario.ca/innovation. We invite your feedback on our inaugural issue — and welcome your input for future issues. Let's keep the conversation going.

Dalton McGuinty
Premier and Minister of Research
and Innovation

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Jim Carroll

The looming impact of baby-boomer retirements and the worldwide shortage of replacement workers, for example will fuel fierce international competition for scientific and medical talent.

Twenty five years ago, Alvin Toffler focused the world's attention on the social and business impacts of technology driven change in books such as *The Third Wave*. Today, according to futurist Jim Carroll, that "wave" has swelled into a tsunami.

"What we're seeing is sweeping transformation at very fundamental levels," said Carroll. "The rate of change is not just accelerating: think hyper-innovation."

A lot of very savvy people think Carroll knows what he's talking about. *BusinessWeek* online recently listed the Mississauga-based consultant's blog as one of four sites to watch for insight into trends and ideas. He helps blue-chip clients — DaimlerChrysler, Nestle, Motorola, SAP, Blue Cross/Blue Shield, Glaxo Wellcome, Roche Diagnostics and many more — adapt to our rapidly changing business, social and economic realities. Carroll has studied trends for nearly 20 years, written or co-written 35 books and given keynote presentations at conferences from Zurich to Las Vegas.

Listening to him talk is like being caught in a torrent of ideas. Take healthcare, for example. "People are focusing on today's challenges," he said. "While that's important and those issues need to be resolved, people should be looking at tomorrow's opportunities and paying a lot more attention to more fundamental shifts in the healthcare landscape."

Hyper-innovation in life sciences

Medical knowledge is doubling every eight years, Carroll notes, and that rate is expected to drop to every two years in the near future.

He points out some of the staggering ripple effects generated by that pace of exponential growth.

- Hyper-growth in medical knowledge means that every medical professional is becoming more specialized and niche-oriented. Doctors will simply not be able to keep up with constantly evolving best practices.
- Highly intelligent, Internet-connected medical devices will provide new opportunities for monitoring and managing healthcare conditions.
- The rapidly shortening product life cycles that characterize consumer technologies will come to dominate the pharmaceutical and medical device sectors.
- A massive and profound shift in healthcare philosophy is coming with the emergence of extremely specialized and highly personalized medical treatments based on an individual's DNA.

These knowledge-driven changes, and many more like them, are all coming in addition to the ones we know about. The looming impact of baby-boomer retirements and the worldwide shortage of replacement workers, for example, will fuel fierce international competition for scientific and medical talent.

For innovative organizations, tomorrow is the new today

High-velocity change is blowing through every sector, not just life sciences. Carroll is working with a wide range of

companies and organizations — including the Ontario Public Service — to help them survive and thrive in the new environment.

Among his top survival tips:

- Volatility is the new normal. Ensure that you make planning and flexibility cornerstones of your corporate capabilities.
- Meet the raised bar of expectations. As people and companies work with the best and brightest on the planet, the expectations get higher every day. Your clients and customers have options. They won't wait for you to fix your problems.

The future-friendly mind-set

Change is not easy for many to cope with and the pace we're witnessing in today's world makes many people anxious, even fearful. Carroll notices it when he speaks at conferences.

"There are two mind-sets that I see all the time," he said. "One sees every change as part of a downward trend. Everything is dark and just getting worse. The other sees changes as opportunity."

Here in Ontario, Carroll has spotted that same split attitude about growth and economic development, and he has noticed a troubling increase in the number of nay-sayers.

"We can be wide open to the world and participate in global opportunities, or we can retreat and hide away from it," he said. "I sense folks are dispirited, especially in smaller communities. It's like they feel they tried it and it didn't work."

"We need to remind people of what is possible," he said. "We need to bring back the excitement, the passion for growth."