

The Future of Research and Innovation
in the Broader Toronto Region

Keynote Address to the Annual Meeting of the Members of
Canada's Technology Triangle

By

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Check Against Delivery

Good afternoon, and thank you, Jamie, for that very warm welcome.

It's a great pleasure to be here in this beautiful and historic building. As a visitor, I'm always captivated by stepping into this very special space and it's reassuring to see that groups like CTT, Communtech and CIGI are safeguarding such a spectacular piece of our regional history.

However, I'd like to talk about the future this afternoon rather than the past. And I'd like to invite you to think about the Waterloo region and the broader Toronto region just ten years from now.

Imagine a future where the region is universally recognized as one of the top five research and innovation jurisdictions in the world. A region that is a destination of choice for leading international scientists. A region with one of the highest levels of public and private R&D spending in North America. A region driven by a vibrant network of researchers, entrepreneurs and investors. A region which magnetically attracts leading research enterprises from around the world.

It is that future that the Toronto Region Research Alliance, or TRRA, for short, is working to realize.

TRRA is a relatively new organization — launched in October of 2005 — but we have drawn together influential partners from the GTA, Golden Horseshoe and the Waterloo Region and beyond who are committed to seeing the broader Toronto region become a world-renowned locale for research and research-driven industry. In a nutshell, TRRA acts as a catalyst and advocate for the region on issues and opportunities related to four areas of activity:

- Building research capacity in our public institutions and private industry,

- Enhancing and accelerating the commercialization process from laboratory to marketplace,
- Attracting research-intensive industry and investment from around the world,
- And creating awareness of the importance of research and innovation to the future prosperity of the region and indeed the entire country.

TRRA is unique in a number of respects.

First, we are a multi-sectoral organization including academia, business, and government. Our Board of Directors and other stakeholders include the most senior decision makers in the region - university and hospital presidents, corporate CEOs, and senior officials and politicians from all three levels of government. TRRA Co-chairs Dr. John Evans and Gord Nixon and key directors such as David Johnston and Tom Jenkins and Carl Zehr ... these are folks who can make things happen.

Second, we are not a broad economic development organization. We are absolutely focused on research and innovation and we will initially concentrate on the enhancement of our world-beating regional strengths in information and communications technology, bio life sciences and advanced manufacturing.

Finally, and perhaps most surprisingly for some, the geographical footprint of TRRA is not confined to the City of Toronto. The Alliance includes the Greater Toronto Area, the Waterloo Region, the Region of Hamilton-Wentworth and the City of Guelph. Why? Because TRRA's founders from across the region took a hard look at our global competitors — places like Boston, the Georgia Research Triangle and Southern California — and agreed that this extended regional footprint of research-intensive industries and world-class research institutions would project our very strongest offering to the world.

So, what is the state of the Toronto Region's offering to the world? It's actually very impressive.

The broader Toronto region (including the Waterloo region) drives over 20 per cent of Canada's GDP and contributes a net \$17 billion annually to the rest of the country.

We perform over 35 percent of all the public and private R&D carried out in Canada. The region comprises the most powerful combination of high-ranking manufacturing, service and R&D clusters in North America. In fact, it's home to the third largest ICT cluster and the fourth largest pharmaceutical and biotechnology cluster on the continent.

But the region's strength is not just in employment numbers or high profile sectors — it's in the quality of its people. Canada has the most highly educated workforce in the world and this region has the largest concentration of universities and colleges in the country.

And the brains, talent and creativity of our people have translated into a wealth of corporate success stories. The region is populated with iconic ICT enterprises such as RIM, Open Text, IBM, Alias and Algorithmics. World-leading bio life sciences enterprises such as sanofi pasteur, GlaxoSmithKline and MDS. Renowned advanced manufacturing firms such as COM DEV, Dofasco and Husky. And a host of incubator enterprises that are RIMs and COM DEVs in-the-making.

Very impressive, by anyone's standards.

But notwithstanding these enormous strengths, the broader Toronto region could and should be doing better.

Despite our phenomenal research capacity, we are leveraging substantially less public research funding per capita than comparable urban regions in British Columbia and Quebec. And our commercialization efforts and venture capital financing are lagging behind those of competing regions in the U.S. and Canada.

So, while it's clear that we have enormous R&D capacity in this region, we also face significant challenges, and in this regard I believe we are at a historical crossroads.

Most other countries in the developed world and indeed many in the developing world have recognized that the key to their future prosperity lies in the advancement of their science and technology sectors. And they are investing very aggressively to address that challenge.

In Singapore, we see the creation of Biopolis, a phenomenal, US\$500 million biomedical research complex accommodating more than 2,000 public and private sector scientists...not only from Singapore and Asia, but including some of the best and the brightest from North America and around the world.

In China, the biggest-ever investment in ICT came in the 1990's with the US\$1.2 billion fund to build industrial capacity in integrated circuits in Shanghai. And the investment has paid off. In addition to boasting a thriving manufacturing and design sector, that region is now home to the fourth largest integrated circuit manufacturer in the world.

And this is not just happening in emerging economies.

In the U.S., President Bush recently proposed a doubling of the federal commitment to the most critical basic research programs in the physical sciences over the next 10 years.

And that is on top of many discipline-specific investments that the American government has made, including US\$6.5 billion invested in nanotechnology research since 2001.

It's all quite astounding.

And where is Canada in this crucial international competition? After several years of catch-up R&D investment near the turn of the century, we now have a new national government which has been virtually silent on the issues of research and innovation and productivity.

You may have seen David Crane's column in the Sunday Star last weekend, entitled, "Where is our Innovation Strategy?" Crane wrote:

"The role of science and technology in Canada's future competitiveness has so far had a low profile in the Harper government. It was barely mentioned in the Conservative platform and the recent budget did not address the issue...The fact that the United States, along with many other countries, is focusing much more on competitiveness through science, technology and education, puts even greater pressure on Canada to get its act together."

I believe David Crane is right. We do need to get our act together and I'd like to suggest three essential ingredients:

First - Transformational public investment. Past international experience suggests that governments must lead the way and we eagerly await Ottawa's new science and technology strategy this September, which will hopefully be based on sound public policy rather than short-term retail politics.

The second ingredient: A stronger commitment by the private sector to invest in research and productivity. The fact is that Canadian business performs barely half the R&D conducted in Canada, putting this country

near the bottom of the OECD list of research-intensive nations. It's time for Canadian business to play a more significant role.

And finally: A stronger commitment to collective action, and this brings us back to the *raison d'etre* of this Research Alliance. Too often in the past the broader Toronto region and its component parts have been held back because of the lack of collaboration. Universities competing against universities. Municipalities against municipalities. Universities and hospitals and industry operating in silos. Economic development efforts in one jurisdiction duplicating and even contradicting others.

But with respect to this third ingredient for success, I sense that the tide of cooperation has begun to turn in Ontario and I have to say that the Waterloo region is leading the way. Of all the TRRA partner jurisdictions we have found the Waterloo region to be the most collaborative, and the most responsive to collective action.

The *modus operandi* of the Waterloo region — with your outward-looking institutional leaders, politicians, entrepreneurs and economic development agencies — make this a jurisdiction to emulate. And throughout the broader region we are trying to do just that. If we succeed, I have no doubt that all boats will rise with the tide and the whole will significantly exceed the sum of the parts.

At the end of the day we ask ourselves, "Why is all this important?" Why does it matter that we build a culture of research and innovation? Why should we build the capacity of our research intensive industries and our public institutions? This isn't a theoretical undertaking. It's very real. It's about high

quality jobs for our children and grandchildren. It's about the wealth generation which will build new hospitals, new schools, new public transportation and affordable housing.

It's about our future prosperity in a world which is becoming smaller and more competitive at an alarming rate. It's the difference between Canada taking its rightful place at the forefront of innovative nations, or stagnating in the second tier as we watch others race ahead.

The broader Toronto region must lead Canada in this crucial challenge, and Waterloo can set the pace for others to follow.

Let's work together in lobbying governments to play a leadership role. Let's work together in encouraging business to step up to the plate. Let's work together to create more institutional and industrial partnerships across the region. Let's work together to tell a powerful, cohesive story on the world stage.

The broader Toronto region is unmatched in its wealth of outstanding universities, colleges and research hospitals. The potential of its industrial research is limitless. And it enjoys a quality of life and diversity and tolerance that is the envy of the world.

Imagine a future where the broader Toronto region is internationally synonymous with innovation and prosperity. I welcome you to join this Research Alliance in making that vision a reality.

Thank you.