

POWERING ONTARIO'S REGIONAL ECONOMIES

A Regional Roundtable Report

December 2019



How can every region in Ontario prosper, grow and contribute to the province's global competitiveness? That was the question debated at a series of forums co-sponsored by the University of Toronto and the Ontario Chamber of Commerce this past fall. At stops in Sudbury, Peterborough and Hamilton, about 200 business leaders, politicians, policy-makers and researchers underlined how they have worked together to leverage the resources and talent in each Ontario community to make the entire province stronger.

Joining the discussion were Colleges and Universities Minister Ross Romano, MPP Stan Cho and Sudbury Mayor Brian Bigger, as well as representatives from regional and government agencies including the Trillium Network for Advanced Manufacturing, Peterborough & the Kawarthas Economic Development and NORCAT. The conversations explored many of the recommendations made in a report from the Ontario Chamber of Commerce. Titled *The Great Mosaic: Reviving Ontario's Regional Economies*, the report advises government to support the building blocks of regional economic growth, including the graduates, researchers and ideas coming out of universities. "The most costeffective way to unleash Ontario's economic potential is to invest in ecosystems of talent, trade, infrastructure and innovation," the report says.

Universities are well placed to meet broad economic demands for an adaptable workforce, socially-beneficial technology and solutions to societal issues, participants said. At the same time, universities can bolster the different strengths of each of Ontario's regions, whether it's the established industries of the North, like mining and forestry, or the knowledge and transportation links of the GTHA's Southwestern Corridor.

But communities also share challenges, including growing and diversifying export markets, improving productivity, and ensuring their regions are attractive and livable places for newcomers. Solutions too have to be shared and should not benefit one region at the expense of others, participants recommended. One example of a policy that benefits all of Ontario is the Regional Immigration Pilot, bringing in-demand talent to areas facing labour shortages.

To ensure this conversation continues, the University of Toronto has collected some of the key ideas raised during the series. As the provincial government renews its support for small and medium-sized enterprises through the Regional Development Program, the time is now to advance co-operation among companies, governments and postsecondary institutions to build strong, resilient economies.

2 THE CHALLENGE

How can SMEs thrive outside major urban centres?

Keeping small and medium-sized businesses thriving in regions outside of major urban centres is a challenge faced by governments around the world. Fuelled by the concentration of business services, deep and varied talent pools, and local and global transportation links, urban economies are booming. Toronto is now North America's fastest growing tech market¹. At the same time, according to a recent study, of the 865,000 jobs created in Ontario in the last decade, less than 20 per cent were located outside Toronto and Ottawa².

Small and medium-sized towns struggle to attract new employers and young workers, and to provide up-skilling opportunities that support an entrepreneurial and flexible talent base that is a magnet to new business investment. For the almost 95 per cent of Ontario businesses with fewer than 50 employees, external expertise can overcome barriers to sustainable growth and help small business increase their productivity.

That is why many of the strategies adopted by regions seeking to develop strengths in new digital economy, health or information technology sectors have universities at the centre. Universities function as a civic and economic anchor for discussions and strategies that are rooted in regional strengths and connected to global markets. In the United States, for example, networks of universities to industry to redress lagging growth³. Closer to home, the federal government's Innovation Superclusters Initiative is investing \$950-million by 2022 to accelerate growth and innovation through collaborations between postsecondary institutions and business working with advanced technology.

With alumni throughout Ontario, and province-wide research partnerships, the University of Toronto is in the unique position of being an anchor to its city and region while functioning as a slingshot for innovation and talent throughout the province. Yet as the three stops on our roadtrip revealed, there is more we can do.

¹ <u>https://www.investinontario.com/spotlights/toronto-ranked-north-americas-fastest-growing-tech-market</u>

² https://on360.ca/policy-papers/measuring-ontarios-urban-rural-divide/

³ <u>https://www.brookings.edu/wp-</u>

content/uploads/2018/09/PBP_BaronKantorWhalley_web_1024.pdf

3 WHAT WE HEARD: SUDBURY

How can resource sectors develop innovative products and processes that open up global markets? That was the central question addressed in Sudbury with a panel of representatives from new and established sectors, and University of Toronto researchers with strong partnerships in the mining and forestry industries.

Resource sectors face uncertain market conditions, and in the case of exportdependent industries, political risks, said Greg Baiden, the CEO of Penguin Automated Systems Inc. As a result, they may delay investments in R&D, said Baiden, who is also a former manger of research for Inco Limited (now Vale).

One solution is to share the risks with universities, said Erin Bobicki, assistant professor in Materials Science & Engineering at U of T. Dr. Bobicki is working with Vale in Sudbury to reduce emissions from mining processes through new carbon storage technology. She is also conducting research on how microwave energy can reduce the costs of processing ore.

Another established industry that is transforming is forestry. Developers are looking to cross-laminated (CLT) timber, a strong, sustainable material with a lower environmental footprint than concrete, said Anne Koven, the executive director of the Mass Timber Institute, a university-private sector research partnership that includes the University of Toronto.

Universities are supporting this transformation. Educational institutions are pioneering the use of CLT to build campus facilities that demonstrate sustainability and aesthetic value. For example, Laurentian University has constructed its distinctive McEwan School of Architecture, while U of T's proposed Tall Academic Tower project integrates CLT into its construction. The next step in the sector's evolution is to build manufacturing facilities that can process the province's valuable wood resources in the province's north, accelerating time to market and supporting Ontario's potential as a global leader, Dr. Koven said.

"I could not do the research that I do in downtown Toronto without the right partners in Sudbury, northern Ontario, and Canada." — Erin Bobicki, assistant professor, Materials Science & Engineering, U of T

4 WHAT WE HEARD: HAMILTON

As one of Canada's fastest-growing regions, the GTHA must address the problems that come with success.

The GTHA and Waterloo regions are new economy powerhouses, and are also at the centre of a growing debate about how to manage housing costs and congestion, said Jan de Silva, the CEO of the Toronto Region Board of Trade (TRBOT).

"I think the big thing we are trying to solve is what are the cross-cutting infrastructure [projects] that can be undertaken? It's working with the province and the federal government to help understand the interconnectedness of the economy," De Silva said.

These challenges are affecting the ability of the public and private sectors to recruit talent. Hospital workers, for example, are looking for affordable housing close to their workplace or within commuting distance. Talent and housing are in increasingly short supply in the GTHA, De Silva said, pointing to a recent TRBOT study.

Solving the shared challenges of the region requires collaboration. The Smart Freight Centre, an initiative among the University of Toronto, McMaster and York University, together with the region of Peel and the private sector, is one example.

Working with companies like Walmart and Loblaws, early research from the Centre has shown that shifting deliveries to off-peak hours reduces delivery times by up to 17 per cent, said Matt Roorda, the Centre's Chair and Canada Research Chair in Freight Transportation and Logistics at U of T.

"It takes persistence and leadership to move past some of those barriers to get large institutions to make partnerships work well. We've had some pretty good success with that," Roorda said.

"Where is the puck going? Where we know it's going is in innovation and technology." – Minister Ross Romano, Colleges and Universities

5 WHAT WE HEARD: PETERBOROUGH

The Peterborough and Kawarthas area is rich in small and medium-sized enterprises that are partnering with universities and colleges to develop competitive new products and access and recruit talent.

Smaller urban centres are increasingly appealing to new graduates who see the potential to start and grow businesses that reach global markets while living in affordable, healthy and growing municipalities, participants said. That's good news for regions grappling with the demographic shift now underway, including slowing or declining population growth⁴.

Other businesses are forging new paths by connecting with university researchers and coming up with new inventions that provide solutions clients have demanded. For example, family-owned Charlotte Products in Peterborough, Ont., partnered with the University of Toronto's Yip Lab and Kelley Lab to create new and innovative technology. The new technology is revolutionizing infection prevention in hospitals, seniors' centres and day cares.

Diane Richard, Director of Product Development for Charlotte Products, explained how being oriented to international markets helped the third-generation family-owned business reach a new level of competitiveness. The partnership has also allowed the company to keep up with growing competition from online distribution channels and firms, and scale up its operations to global markets.

The conversation was moderated by Derek Newton, Assistant Vice-President, Innovation, Partnerships and Entrepreneurship at U of T. MPP Stan Cho spoke about his own family's journey to becoming small business owners in Canada.

In addition to accessing world-leading research, Peterborough businesses have partnered with local postsecondary institutions to develop the talent that will power the industries of tomorrow. For example, Trent University's CleanTech Commons is supporting local and regional companies dedicated to green and low-carbon technology research and commercialization.

"Working with universities has meant the products and innovation created by local companies can reach the world and bring benefits to families and workers in Ontario." – Matt Strano, CEO, Charlotte Products

⁴ https://www.fin.gov.on.ca/en/economy/demographics/projections/

6 | NEXT STEPS

TRAIN AND RECRUIT NEW TALENT

Ontario's established industries need employees who bring new ideas, skills and international experience to the challenge of developing products that are globally competitive. As the representation of women and Indigenous employees increases in sectors such as mining and forestry, communities where these industries are located will become stronger. Postsecondary institutions are important partners in diversifying the labour pool. At U of T, more than a third of undergraduates in engineering are women. And together with all Canadian universities, U of T is undertaking multiple initiatives to recruit Indigenous students, including collaborative projects between Indigenous community leaders and the University's Faculty of Applied Science & Engineering⁵.

SUPPORT START-UPS AND SMES TO GROW AND SCALE

Businesses and associations like the Ontario Chamber of Commerce are looking to ensure good ideas and good businesses are not only born in Ontario but are able to stay in our communities. With the majority of business in Ontario made up of companies with between 1 and 4 employees, innovation and competitiveness depend on expanding the capacity of industry to prepare and invest in meeting the needs of global markets. Collaboration among universities, colleges and business leverages external expertise that can help develop new products. At the same time, it provides researchers with real-life testing of their ideas. By reducing the risk of research spending and sharing the cost of talent development, industry-university partnerships increase the competitiveness of Ontario companies and facilitate solutions.

\$120M

Total private sector research and innovation funding at U of T and affiliated hospitals (2018)

17 %

Decline in delivery times as a result of off-peak deliveries, a solution designed by the Smart Freight Centre, a collaborative research group

27 % Percentage of U of T alumni in health-care professions who live outside the GTA

600 Number of U of T's industry partners over the past decade

⁵ <u>https://www.utoronto.ca/news/reconciliation-through-engineering-initiative-help-improve-indigenous-housing-transportation</u>

REIMAGINE TRADITIONAL INDUSTRIES

New technologies like Artificial Intelligence, Advanced Manufacturing, or automated electric vehicles, would not be possible without resources like nickel, cobalt and copper. That's why Canada's and Ontario's future strength lies in combining established industries with new technologies to accelerate both. For example, construction engineers and architects are working with the forestry sector to transform an established sector into a value-added industry through the manufacturing and innovative use of mass timber.

INVEST IN LIVABLE, PROSPEROUS AND HEALTHY REGIONS

Ontario's major urban centres are magnets for talent and business. But municipalities that invest in the elements underpinning livability and affordability – housing, cultural and recreational amenities, education, well-being and transportation infrastructure – can recruit and retain workers looking for an alternative to busy urban centres. Universities are important partners in this strategy, functioning both as regional anchor institutions and as centres for advice and expertise on how to facilitate thriving and sustainable regions.

> For more information, please contact: Andrew Thomson Chief of Government Relations

> University of Toronto Simcoe Hall, 27 King's College Circle, Room 216 Toronto, ON M5S 1A1

gro@utoronto.ca gro.utoronto.ca 416-978-5360

