Submission to the Standing Committee on Finance, Government of Canada

Pre-Budget Consultation 2019

Ryerson University

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In a changing economic landscape, the federal government has made substantial progress in supporting growth and opportunity that is creating new jobs and export activity across Canadian industries.

For universities, investments in research granting councils, the Canada Foundation for Innovation and the Research Support Fund are helping to foster the next generation of Canadian research and researchers on the path to a more innovative Canadian economy. In support of the government's objectives, Ryerson University joins with Universities Canada in its endorsement of enhancements to the Research Support Fund, as well as its call for investments in the development of future skills for students. To quote Budget 2018, 'better is possible.'

Ryerson has considerable experience in equipping its students with what can be called power skills for the 21st century: entrepreneurship, communication, innovation and leadership. Our institutional DNA includes a spirit of innovation and willingness to challenge the status quo. Through work-integrated learning and relevant curriculum and research, Ryerson has built its reputation on providing its students with the skills they will need for future success. Our zone learning model that empowers students to explore their ideas for new businesses and new social innovations is reshaping post secondary education. The template for Ryerson's DMZ, ranked the top university-based incubator in the world, has been replicated in discipline-specific centres across the university. At the same time, new graduate programs such as Data Science and Analytics provide students with the skills that employers are desperately seeking; while our research expertise in fields like immigration and settlement are helping to inform future policy in strategically important areas.

Building on investments in Budget 2018, Ryerson is ready to create positive change for Toronto, Canada and the world. We offer the following recommendations in this pre-budget submission.

Mohamed Lachemi
President and Vice-Chancellor

1

Support research on social infrastructure

The government's commitment to creating the conditions for all Canadians to succeed in the future economy is a bold step. Building the infrastructure for that success involves more than bricks and mortar – it means developing the social infrastructure that ensures pathways to opportunity for everyone, regardless of background. Two areas deserve particular attention: immigration and settlement, and the role that cities play in the nation's economic growth strategy.

Immigration and Settlement

Due in large part to immigration, Canada is rich in human capital and there are steps the country can take to make the most of the talent, focus and drive that newcomers bring. We need to know, however:

- What supports can help ensure the success of immigrant innovators and entrepreneurs?
- How can policies be more effective to ensure successful immigrant integration and refugee resettlement?

With an international reputation for research and expertise in immigration and settlement, Ryerson faculty are helping to shape policy and practise in the field. The university's graduate program in immigration and settlement studies is a first in Canada; and the Ryerson Centre for Immigration and Settlement is a focal point for the study of international migration, integration, refugees and diaspora.

As a thought and knowledge leader in immigration and settlement, Ryerson is ready and able to increase the depth and breadth of its work in this field.

City building for success

As centres of talent, investment, education and innovation, Canada's cities are where start-ups begin and enterprises flourish and grow. Nurturing economic growth in the nation's cities is a winning strategy that takes full advantage of existing infrastructure. Urban universities such as Ryerson are well-positioned to spur and support activities that foster innovation and growth. Ryerson is proudly part of a living city and ready to contribute further to the government's economic enhancement strategy for urban areas.

The university continues to transform downtown Toronto with relevant research, applied learning opportunities and scholarship on civic concerns, while its robust campus expansion is guided by principles that include engagement with our neighbourhood and seamless integration into the community.

Ryerson has a wide range of centres and institutes focused on city building issues and concerns. Chief among these is the Ryerson City Building Institute, which brings together political leadership, policy ideas and people from diverse backgrounds to address critical urban challenges. The Institute delivers its mandate by working with partners across faculties and outside the university to deliver high-quality teaching, research and public engagement on urban issues.

Our student population reflects the increasing diversity of the city, and the university provides access and support to underrepresented groups, in particular first-generation students, Aboriginal people, persons with disabilities and internationally educated professional. Ryerson's academic and research partnerships with leading institutions such as St. Michael's Hospital, Toronto International Film Festival, Bombardier Aerospace and Hydro One are having a positive and transformative effect upon society.

Supporting research

The next generation of research and researchers is emerging at Ryerson. The latest round of Social Science and Humanities Research Council grants show Ryerson's evolution into a source of current and relevant expertise.

Some examples of research at Ryerson supported in recent SSHRC funding:

- Tariffs and trade liberalization (Dr. Halis Yidiz – Economics)
- Smart cities and how to ensure technology enhances quality of life for all citizens (Dr. Pamela Robinson - Urban and Regional Planning)
- Sanctuary city policy and its implications (Dr. Graham Hudson – Criminology)
- International trade and inequality in Canada (Dr. German Pupato – Economics).

2

Support a breakthrough in lab-to-market commercialization

A new approach is recommended to break the bottleneck in moving technology quickly from university labs to application and commercialization.

A solution is readily available, thanks to funding provided by the Canada Accelerator Incubator Program. Founded by Ryerson University, Simon Fraser University and the University of Ontario Institute of Technology, the Incubate-Innovate Network of Canada (I-INC) is a pan-Canadian, internationally connected network that leverages the extensive resources of high-performance, university-linked accelerators and incubators as well as the research capacity of the institutions. I-INC creates an ecosystem for science and technology-enabled innovation, productivity and job creation.

Based on its strong performance and the reputation of its founding institutions' programs, I-INC has embarked on an expansion of the network to increase its reach and impact and provide the scale to deliver the programs that will build a new generation of globally competitive businesses involved in deep technology – the space where basic scientific discoveries are translated into useful technology, products and services. The elements of the expansion, which can be made broader and deeper with additional support, are as follows:

1. Scaling experiential learning of the critical skills necessary to move deep technologies more quickly from lab to application. The I-INC lab-to-market programs draw upon the proven success of the U.S. National Science Foundation I-Corps, the U.K's ICURE, and the MIT Translational Fellows programs. These experiential programs have been demonstrated to:

   • Widen career prospects of participants and result in higher median wages
   • Increase commercialization skills proficiency, and
   • Increase the likelihood of successful commercialization outcomes.

By scaling and distributing these skills for the early evaluation of opportunities closer to the research, the I-INC program breaks through a critical bottleneck in research commercialization and expands the development of deep technology-based businesses and jobs in Canada.

2. Many companies continue to struggle with navigating universities to access the talent, research and facilities they need. The expanded I-INC network will be a gateway for critical and emerging Canadian industry sectors and superclusters providing simplified access across Canada to talent, research partnerships and incubator/acceleration programming and infrastructure at leading Canadian universities.

3. Developing and maintaining networks of major investors and international market development partners requires a large pool of start-up and scaling businesses to ensure quality and timely deal flow – necessary to activate these networks. These international networks and investors provide the funding for start-ups and scale-ups, access to experienced investors and managers and links to international markets. I-INC provides the scale to maintain a strong funnel of quality opportunities demanded by these international networks and ensures that Canadian scale-up companies can compete globally for investment and international market access.

I-INC has a proven track record and its experience in the last four years has shown how a national network brings value to the innovation ecosystem. The network has delivered impressive results:

• Supported companies have raised over $550 million in funding and created more than 3,600 jobs
• More than 300 companies are supported annually and, in the past two years I-INC assisted more than 100 companies in business development in the U.S., China and Europe, with funding from NRC-IRAP.

I-INC's programs and services enhance the impact of its member research universities and innovation organizations, strengthening Canada's innovation agenda and national competitiveness. Most importantly, participating innovators and companies are given access to a continuum of resources for research partnerships, talent access, market validation, scale up and international expansion – all of which provide a platform to build world-class, innovative, made-in-Canada technology-driven businesses.

The network and suite of its proposed services will be an important catalyst for large, multidisciplinary, multi-institutional sector-based initiatives. It will provide an important complement to major investments in research, such as those through NSERC strategic networks, CIHR and the Canada First Research Excellence Fund. I-INC bridges the gap between these investments to rapidly identify, validate and support opportunities where they can secure private investment or later-stage public programs such as NRC IRAP and SOTC, and then connect these resources to industry-led clusters.

Recommendation: Support a national expansion of the Incubate-Innovate Network of Canada with an investment of $12.4 million annually for five years.

Power skills: build out the Ryerson Institute for Labour Market Information

Why is it that employers cannot find skilled workers while unemployment remains high? Can government do more to close the gap?

It is a perplexing issue that affects the nation's productivity and international competitiveness. Well-intentioned programs and policies informed by a lack of timely and relevant labour market information (LMI) have not been successful in making significant inroads.

Better inputs for LMI have the potential to close the gap and make headway regionally and nationally. Ryerson's Institute for Labour Market Information (RILMI) is ready to support other federally funded initiatives such as the Future Skills Centre and the Labour Market Information Council to help ensure Canada takes on the issues smartly and effectively.

A national solution is possible with technology that is proven and already functioning. Magnet's online platform developed at Ryerson University supports job matching, student work-integrated learning, tracking and distribution of contextualized labour market information to a rapidly growing network of more than 1.1 million students, alumni, job seekers as well as over 500,000 employers across Canada.

Magnet's functionality is supporting a growing network of community partners across Canada that includes:

- 67 economic development and industry association partners
- 75 Canadian post-secondary educational institutions
- 50 community-based employment service organizations
- 127 immigrant and newcomer-serving organizations
- 72 Indigenous-serving organizations
- 81 organizations supporting persons with disabilities.

Labour market analysis, policy, training and employment programs will be informed by real-time data. The result: talent more closely aligned with demand, and the technology includes a key feature that supports diversity and inclusion. Users can privately and securely self-identify as a member of any equity group, facilitating equity hiring at a scale sufficient to address the underrepresentation of diversity hiring across Canada.

A new and innovative solution to 'the gap' is ready to be scaled Canada-wide.

Recommendation: Support the Ryerson Institute for Labour Market Information and scale its innovative technology across Canada with an investment of $9.5 million per year for three years.