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Ryerson University's ground-breaking approach to applied education and its commitment to fostering innovation and entrepreneurship has established it as a leader in post-secondary education. The university is rapidly evolving its unique innovation ecosystem, and with the partnership of the federal government and the private sector is building even more capacity to encourage, educate, foster and support young people from all backgrounds to succeed in an era of opportunity and disruption.

Our focus on career-oriented education and experiential learning opportunities has never been more relevant, or more successful. Demand is high for a Ryerson education, from both students and employers. The support of the government, industry and community partners ensures curriculum meets the needs of the 21st century economy, and with programs such as the federally supported Incubate Innovate Network of Canada, Ryerson is positioned to do even more.

Ryerson is rapidly building infrastructure to foster innovation and bring great ideas to market. Our Zone Learning network of 10 incubators including the highly successful DMZ, has scaled up quickly and successfully, fostering startups, creating jobs and equipping youth with the skills needed for today's economy and society. At the same time we have launched a new, data-rich technology called Magnet that matches people with skills to employers with jobs. Magnet is more than a digital career service however, it provides the kind of real-time labour market information that can bridge the gap between Canada's training and education programs and the economy.

In partnership with Ryerson and with a strong focus on diversity and inclusivity, the federal government's investments in a new innovation agenda can help to create new ventures and new jobs, vital to the economic and social prosperity of Canadians. We are requesting additional support for programs that deliver real results where it matters most: with bright and talented young people who are the future engines of economic growth. In order to continue Ryerson's momentum, we are making the following four recommendations:

- 1) Expand funding to I-INC
- 2) Invest in incubators
- 3) Invest in Magnet and career readiness
- 4) Support science and innovation by expanding outreach to women and diverse groups, and investing in infrastructure.

Focus: Innovation and Entrepreneurship

Recommendation 1: Expand funding to I-INC to broaden its scope and outreach

Through the joint efforts of the three founding institutions, the Canada Accelerator and Incubator Program-funded network -- Incubate Innovate Network of Canada (I-INC) -- has met or exceeded original targets. The funding has had a direct impact on incubation programs in each of the partner institutions (Ryerson, Simon Fraser University, University of Ontario Institute of Technology) where it is used to support additional incubation space, programming and activities for clients, development of partnerships for investment and international market access and key personnel who are working directly with clients.

In the most recent year, I-INC-supported incubators admitted 161 new clients, delivered programming to 351 clients and engaged 11 new investor networks. One example is Ryerson's partnership with Tangerine Bank to create the Tangerine Thinkubator aimed at supporting fintech startups. Building on the first two years of success for the I-INC, it is clear there are additional opportunities worthy of support. Additional funding of \$17.6 million over three years would assist us in the following areas:

- ***Expand targeted support for high potential science-based new ventures to reach all Canadian academic research institutions. (\$7.6M)***
- ***Accelerating access to global markets (\$2.4M)***
- ***Support of academic-based incubator programs in developing countries (\$3.0M)***
- ***Supporting Scale-up of Ventures (2.0M)***
- ***Network growth (\$2.6M)***

(See Appendix for details on each of these areas of opportunity)

Recommendation 2: Invest in incubators to develop the talent and skills necessary for young Canadians to thrive in the 21st century economy

In 2010, Ryerson launched the DMZ, the #1 ranked university-based incubator in North America and #3 in the world. Since then, it has incubated 256 startups and fostered 2,364 jobs. As of July 2016, the DMZ houses approximately 513 innovators in 77 startups.

Building on the success of the DMZ, Ryerson has developed a unique experiential learning program called zone learning that is successfully fostering startups and fueling job and economic growth. As part of multi-disciplinary teams, zone learning enables students to gain first hand, practical experience designed to provide them with real advantages in a changing economy.

The university has a thriving network of 10 well-established innovation zones with links to industry and community partners. Each specializes in sectors poised for growth and transformation: urban energy, social ventures, legal innovation, design fabrication, biomedical discovery, digital media and more.

The zones have established links in Canada and abroad. For example *International Zone Fellowships* have brought young entrepreneurs from India to Ryerson to work alongside their Canadian counterparts. The fellowships have expanded to China, Israel, South Africa and Ukraine, and other partnerships have been established in the UK and Tunisia.

The basket of subject matter in the zones is virtually unlimited. Zones have been engaged in everything from drones, big data, sports innovation and music, to 3D printing and fintech. More than just fostering startups, these zones are developing skills for young people that employers are telling us are critical: communication, creativity, collaboration, business planning, entrepreneurial mindset and a passion for innovation. The call to action is best described in the standing invitation to all Ryerson students: "even if you are not an entrepreneur, work alongside someone who is."

Focus: Career readiness

Recommendation 3: Invest in Magnet to cover services to post-secondary students

A challenge for industry is finding the right talent. This hampers industry's productivity, international competitiveness and profitability. To help address the hurdle, Ryerson in partnership with the Ontario Chamber of Commerce launched Magnet in 2014. It's a powerful, data rich job-matching technology connecting job seekers with employers based on skills, preferences and talent needs.

Magnet is designed to complement and increase the effectiveness of Canada's training and employment programs. Magnet provides robust labour market information, which is timely, easy to use and understand. Magnet can pin-point skills and competency gaps by geography and educational background. To summarize: Magnet can be used to more closely align Canada's talent with the demands of industry.

Magnet is also a network that supports the development of local partnerships, amplifying the efforts of communities and regions for collective impact. It uses a Community Hub Model, which helps break down silos in service provision. Already, Magnet has shown impressive results -- more than 85,000 users, thousands of employers, and a network of 170 community and industry partners.

To scale this initiative, Ryerson is seeking an annual investment of \$10.2 million for five years. This investment would concentrate resources towards 12 geographic regions across Canada. These regions are economic engines facing significant talent recruitment issues. The overriding objective of the project is to drive regional adoption of the Magnet network by activating regional community and industry partners.

Focus: Diversity and outreach in science and innovation

Recommendation 4: Support science and innovation by expanding outreach to women and diverse groups, and investing in infrastructure.

Investments in diversity and inclusiveness are investments in human capital for economic development and social well-being. This is particularly important in the STEM (science, technology, engineering and math) disciplines, which have both a high potential for fueling economic growth and an underrepresentation of women, Aboriginal people and visible minorities. Canada lags the rest of the English-speaking world in programming that addresses the systemic issues that limit diversity in STEM. Since its founding, however, Ryerson's Faculty of Science has embraced inclusiveness and outreach as core values and has developed a national reputation for on-the-ground, workable solutions that open the door to traditionally underrepresented groups in the sciences.

The value to Canada is clear: great ideas can happen anywhere, from remote Northern reserves to disadvantaged urban neighborhoods. Funding of \$2 million would enable Ryerson to launch a national initiative to share its success and help foster diversity in STEM across the country. This initiative is based on action: because the barriers to STEM for women and minorities are well documented, evidence-based approaches would be used to implement solutions and create real change.

To engage communities and build a culture of science for Canada in the long term, universities need to bring science to the public in a meaningful and consistent way. Surveys show that the

public expects universities to be the number one source of science-related information, ahead of the media and government. It's a mandate Ryerson has embraced, with outreach programs for high school students, camps for young women and public science fairs. While these are important initiatives, the university plans to build a one-of-a-kind home for science expertise and outreach in the heart of Toronto that truly takes science to the street. No ivory tower, the science innovation building will reflect the diversity of its precinct and engage the community in new and exciting ways. Ryerson has the land and a plan and support from the federal government in the amount of \$80 million would launch Phase One of this science innovation development.

Ryerson University looks forward to a continued partnership with the federal government on fostering the talent, knowledge and expertise to fuel Canada's economic and social success.

Appendix

For Recommendation 1: Expand funding to I-INC to broaden its scope and outreach

Details on the five target areas:

- ***Expand targeted support for high potential science-based new ventures to reach all Canadian academic research institutions. (\$7.6M)***

The I-INC network is pursuing the development of a 'Canadian I-Corps', a version of the U.S. I-Corps program. This program supports teams to move research projects out of the academic lab to commercial application through a start-up. The U.S. program has a high success rate in identifying and supporting ventures that go on to secure follow-on funding, and there is no similar program in Canada. I-INC would be a natural venue to deliver the program, which would be open to all Canadian institutions with the core I-INC members responsible for its delivery.

- ***Accelerating access to global markets (\$2.4M)***

Each of the I-INC member institutions has established international partnerships that enable the exchange of companies and entrepreneurs, known as soft landings. Supporting active relationships with international soft landing partners requires sending companies to those partners on a regular basis. Priority would be given to markets identified as such by federal and provincial governments.

- ***Support of academic-based incubator programs in developing countries (\$3.0M)***

A secondary opportunity in international collaboration is to support Global Affairs Canada with its international entrepreneurship development goals. I-INC offers experienced incubator management as well as established networks of mentors, service providers and investors that can support the creation of incubators and accelerator programs in developing economies, customized to the local needs and environment. I-INC can coordinate resources from other organizations and non-member institutions where needed, drawing on its established academic institution, NGO and corporate linkages.

- ***Supporting Scale-up of Ventures (2.0M)***

Scaling up new ventures - moving them from early stage through Series A or Series B venture rounds and into significant job growth – is critical to support of high-potential companies emerging from the I-INC's incubators. The network provides the scale necessary to develop a steady supply of ventures that will be ready for next-step investment and require the next stage of technical and managerial support for their growth in Canada. With this pool of high-potential investment opportunities, we will support relationships with venture investor partners, and attract the necessary management talent and key lead customer partnerships. This initiative dovetails well with the Global Market Access activities, as the companies ready for scale up are often also the best candidates for expanding internationally.

- ***Network growth (\$2.6M)***

The three partner institutions have expressed a desire to expand the geographic and sector coverage for I-INC. Geographically, we are looking at universities in Quebec, Atlantic Canada and the Prairies. The expanded reach will enable the network to identify the best opportunities regardless of originating region and to support the development of opportunities within the region.