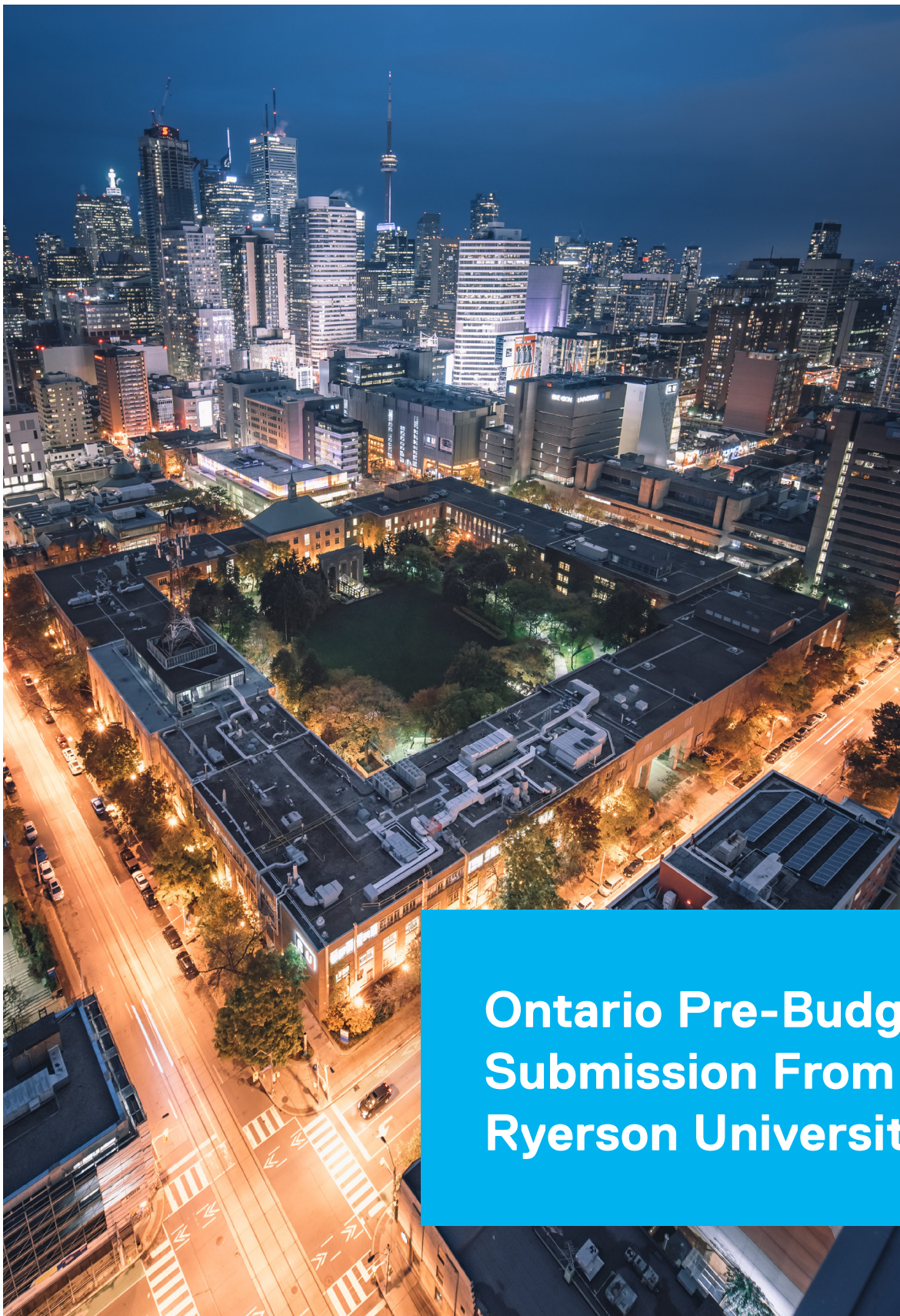


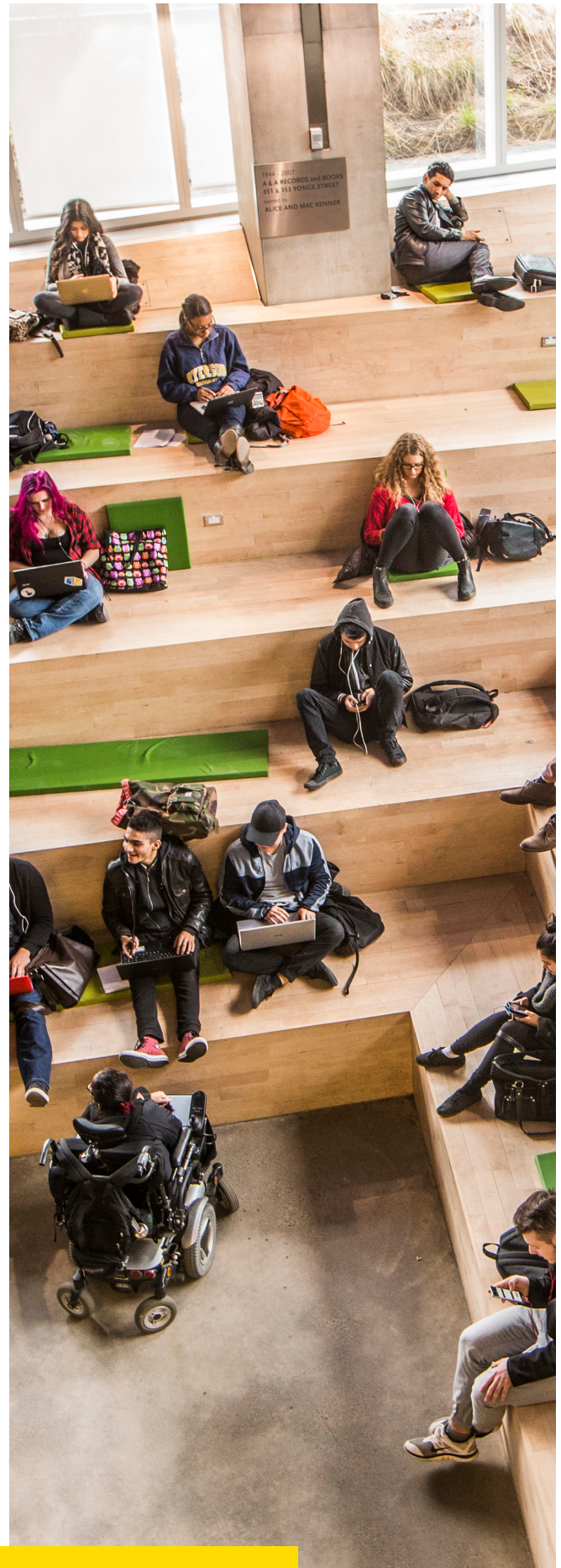


Ontario Pre-Budget Submission From Ryerson University

Innovation is the engine of economic growth and social mobility. And at Ryerson, innovation underpins all aspects of our mission – education, research and service to the community. We leverage our position in higher education, harnessing current knowledge and best practices, drawing on new insights from evidence-based research and imagining what the successful university of the future can be. In this way, Ryerson has distinguished itself in its approach to supporting new ways of teaching and learning, building infrastructure to support the new economy and fostering research and entrepreneurship that transforms how we work, live and play.

The Government of Ontario, since the beginning of its mandate in the summer of 2018, has been clear that it will deliver on its mandate to restore sustainability to the province by carefully managing the balance between finding efficiencies and making strategic investments to stimulate economic success and competitiveness.

In this 2020 pre-budget submission to the Ontario Government, Ryerson University will outline how the university develops talent for careers today and tomorrow, provides state-of-the-art infrastructure for learning and research and drives innovation and entrepreneurship with impacts here and around the world. It is in these respective areas where strategic investments by the Government of Ontario can amplify the impact that Ryerson, and others in the postsecondary education sector, can have in developing talent, creating a resilient workforce, accelerating innovation and building a competitive economy for Ontario.



Developing Talent for a Resilient Workforce



The pace of change has never been so rapid and it will continue to accelerate and to reshape the labour market demand for generations to come. Where once a worker may have had a career at one, maybe two or three organizations, today's graduates will likely now have more than a dozen different jobs.

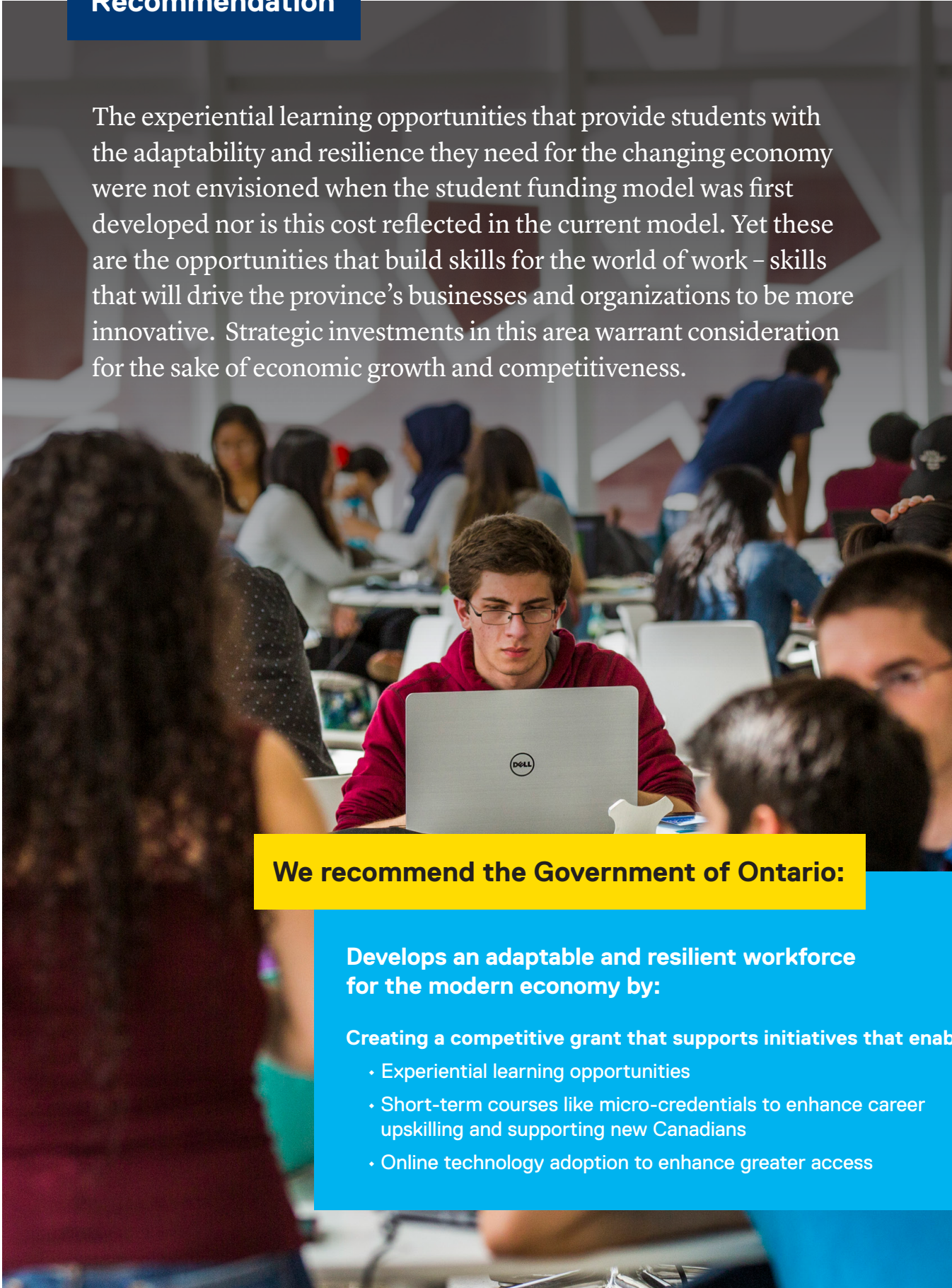
At Ryerson, we provide students with skills to adapt to career changes. The university has also supported upskilling or reskilling of mid-career individuals transitioning to new jobs as a result of business disruption. From our early years as a post-war polytechnic institution to the present day, Ryerson has offered a large number of high-quality programs that are market or professionally oriented. In addition to periodic review of our programs by the Quality Council of Ontario, Ryerson has advisory boards of executives from industry and the professions to contribute to ensuring that our programs are relevant to the changing marketplace that our students will enter.

This consideration for the needs of the labour market was most evident in the university's new approach to legal education, which was approved by the Government of Ontario and will launch in September 2020.

A hallmark of the educational experience since 1948, Ryerson provides one of the widest range of experiential learning opportunities from co-op placements, practicums and field work to contributing to innovative business startups or engaging with government. Embedded in these experiences and programs are the "power skills" – communications, teamwork and critical thinking – that are in high demand by employers and are critical to career adaptability and resilience.

Ryerson's G. Raymond Chang School of Continuing Education is constantly researching the areas of high labour market demand and using that information to inform the development of university programs. At approximately 70,000 registrations, it is one of the largest continuing education units in the country. It also helps to serve people needing to reskill by providing over 80 certificate programs and courses in areas where there is a shortage of talent such as data analytics, cybersecurity, privacy, health informatics, cannabis management, food security and crime analytics.

The recent expansion of graduate programs at Ryerson is contributing to the university's growing research impact as well as providing the highly qualified personnel for both the academy and industry. Once seen as the next generation of researchers, instructors and mentors for the academy, advanced degree holders are now finding increased demand for their knowledge and skills in navigating the complexity of today's business and technical problems. Ryerson graduate students are well-positioned to move seamlessly into those roles because of the combination of theoretical and applied learning they acquire.



Recommendation

The experiential learning opportunities that provide students with the adaptability and resilience they need for the changing economy were not envisioned when the student funding model was first developed nor is this cost reflected in the current model. Yet these are the opportunities that build skills for the world of work – skills that will drive the province’s businesses and organizations to be more innovative. Strategic investments in this area warrant consideration for the sake of economic growth and competitiveness.

We recommend the Government of Ontario:

Develops an adaptable and resilient workforce for the modern economy by:

Creating a competitive grant that supports initiatives that enable:

- Experiential learning opportunities
- Short-term courses like micro-credentials to enhance career upskilling and supporting new Canadians
- Online technology adoption to enhance greater access



State-of-the-Art Infrastructure to Support the Economy of the Future

Building an adaptable and resilient workforce requires different types of classrooms, labs and library spaces that are more collaborative and technically advanced.

Ryerson is a leader in creating purpose-built spaces that leverage technology to provide opportunities for learning and skills development, which enables the adoption of technology in the curriculum to support experiential learning. The most recent example is the new Daphne Cockwell Health Sciences Complex (DCC), funded by the government, private donors and Ryerson and officially opened by Minister Romano. Designed to teach the next generation of nurses, amongst others, the building includes three large 15-bed wards and individual hospital rooms with patient-simulation mannequins that talk, listen and move. The space can accommodate several different settings including: a hospital, community organization or home in order to give students a state-of-the-art experience for future work in different health-care environments.

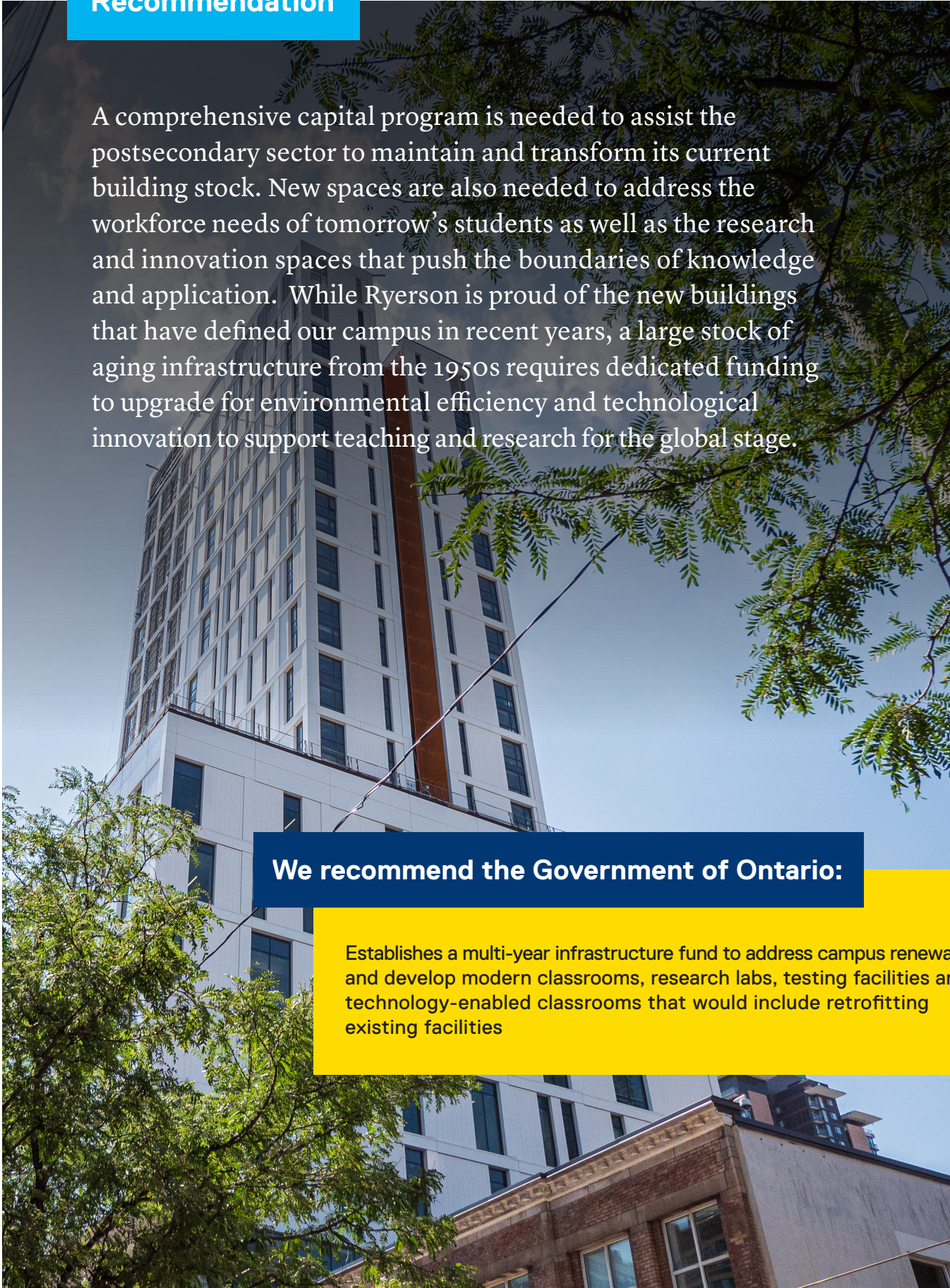
Also in the DCC is the newly launched Creative Technology Lab that houses robotic arms from large to small scale, Computer Numerical Control machines used in advanced manufacturing and laser cutters that cut through anything from wood, cloth and plastic. This lab also has 3D printers and a new print packaging facility, all of which will provide multi-disciplinary opportunities for research, industrial testing and advancing entrepreneurship at the university.

At the Digital Media Educational Lab (DME) in the Ryerson Library, all students can advance their digital skills with one-on-one tutorials on how to use emerging technology including virtual reality, 3D printing and Photoshop/Illustrator. The DME lab also provides students with the opportunity to rent equipment such as GoPro cameras, tripods and microphones.

Ryerson demonstrates innovative out-of-the-box thinking in the way we acquire and utilize our limited physical footprint. For example, our partnership with Cineplex allows for Ryerson morning lectures to be held in the theatres at Yonge and Dundas and other partnerships provide us with education, research and administrative space in adjacent developments. While we are proud of what has been achieved, space remains the number one concern for Ryerson. The university has one of the highest utilization rates for space in the sector and depends on both rental space and its own facilities to meet its needs. Limited access to affordable land challenges the university to be creative about securing what we need to grow and improve.

The next step in our development is the creation of a new suite of programs to meet needs in the province's north and south, particularly in the area of cybersecurity. Building on the strength of the Rogers Cybersecure Catalyst, we are developing programs that not only meet student needs but are increasingly sought by business and government to address the growing shortfall of talent in this area.

As Ryerson continues to push the boundaries in traditional disciplines and new ones like cyber, it requires additional infrastructure to address the needs of its students and researchers from the perspective of both education and research. Top of the list for Ryerson is a new science building to house this initiative and support our growing science research and education.



Recommendation

A comprehensive capital program is needed to assist the postsecondary sector to maintain and transform its current building stock. New spaces are also needed to address the workforce needs of tomorrow's students as well as the research and innovation spaces that push the boundaries of knowledge and application. While Ryerson is proud of the new buildings that have defined our campus in recent years, a large stock of aging infrastructure from the 1950s requires dedicated funding to upgrade for environmental efficiency and technological innovation to support teaching and research for the global stage.

We recommend the Government of Ontario:

Establishes a multi-year infrastructure fund to address campus renewal and develop modern classrooms, research labs, testing facilities and technology-enabled classrooms that would include retrofitting existing facilities

Innovation and Entrepreneurship to Drive the Economy



Ryerson's innovation ecosystem has a direct impact on the economy by creating jobs, attracting capital and fueling international partnerships. Ontario has been leading the country in job creation and entrepreneurship. Fostered by universities like Ryerson, the government can help to ensure that trend continues.

The DMZ, the university's world leading accelerator for tech startups in Canada, is the model that has spawned nine other innovation zones across campus in sectors such as biomedical, clean energy, design fabrication, law and fashion. Ryerson's zone network fosters entrepreneurship skills that lead to new business creation or to an increased capacity for "intrapreneurship" for those with a desire to apply an innovation mindset to an existing business.

The university is also making an economic impact in other ways. The Rogers Cybersecure Catalyst established in Brampton last year, is providing cyber training to individuals from across the country to help address the global shortage of skilled labour in this area. The Catalyst is also conducting research and fostering new product and business creation to address cyber problems and help to reduce the high cost to the economy of cyber crime, which is estimated to globally rise to US \$6 trillion annually by 2021. The Catalyst looks forward to continued discussions on how it can support the Government of Ontario's new Cyber Security Centre of Excellence for the

broader public sector, which was announced in the Fall Economic Outlook and Fiscal Review.

Ryerson is also at the forefront of efforts to address issues around the future of work with the Diversity Institute, Magnet and the Brookfield Institute doing important work in this space. Ryerson is also now home to the Future Skills Centre, a national strategy that facilitates collaboration and identifies appropriate training programs to prepare people for new careers and transition to other parts of the labour market. The collaborative network cuts across federal, provincial/territorial and municipal governments and organizations, employee groups, industry and sector associations and employers. In addition to supporting employee-training projects, this federally funded centre shares information, results and lessons learned with stakeholders across the country in order to strengthen training outcomes locally, provincially and nationally.

Serving societal needs is a core research mission, and Ryerson researchers do that by operating at the nexus of industry and government to deliver solutions to problems in areas that include urban innovation; justice, equity and society; culture and creativity; work, skills, industry; health and well-being and technology and intelligent systems. The university is committed to collaboration and partnerships with diverse communities. Indeed, industry partners look to Ryerson to address problems in a wide range of areas from urban energy and transportation, to cyber security and privacy, as well as audience engagement and the use of technology in performance. With our new Canada Excellence Chair in Migration and Integration, Ryerson is especially well-positioned to provide evidence-based support to help address important policy considerations in immigration and settlement. In addition to the knowledge that is created or advanced, the research environment is also the launching pad for graduate students and research trainees to learn, test and innovate in ways that prepare them to provide those much-needed advanced learnings and skills for careers in academia and industry.

Recommendation

Encouraging innovative activities, developing talent and fostering new knowledge through research all have important contributions to the economy. A uniquely Ontario innovation strategy would help to amplify those impacts.

We recommend the Government of Ontario:

Develops an innovation strategy to attract and support investment to the province by:

- Providing matching funds to federal research equipment and infrastructure
- Maximizing commercialization opportunities through support for incubation activities
- Providing additional funded spaces to increase enrolment in areas of emerging need and demand

Conclusion

The provincial government's Fall Economic Statement emphasized the notion of "building Ontario together." With the complexity of problems that exist, it is indeed important to work together for solutions and impact. At Ryerson, we are committed to working with our partners in government, business and the community to do just that. We will continue to harness the innovative capacity of our students, faculty and staff to transform the lives of people in many different ways. We will also continue to collaborate across the university and across all sectors to bring a wide range of perspectives to bear in order to make the imaginable possible.

