

Queen's University Ontario Pre-Budget Submission

January 2020



RECOMMENDATIONS

Queen's University recommends...

- That the Government of Ontario commit to targeted investments in Work-Integrated Learning and early-career supports for new graduates to assist eastern Ontario employers retain skilled talent in the region.
- That the Government of Ontario commit to targeted investments in campus infrastructure, prioritizing investments that will improve student learning and provide graduates with hands-on experience relevant to their future careers.
- That the Government of Ontario create a competitive green infrastructure renewal program that would provide postsecondary institutions with grants or no-interest loans to invest in building efficiency upgrades that reduce greenhouse gas emissions, operating costs, and deferred maintenance.
- That the Government of Ontario nominate Queen's *Investing in Canada Infrastructure Program* (ICIP) application for the Agnes Etherington Arts Centre expansion and revitalization project to the Federal Government for its consideration, or to work with Queen's to identify other funding mechanisms for leveraging a prospective philanthropic donation.
- That the Government of Ontario partner with postsecondary institutions to support campus innovation and commercialization activities, which contribute to regional and provincial economic opportunity.
- That the Government of Ontario work with post secondary institutions to address student and labour market demand for innovative new programming and skills training in high-demand fields.

In addition to Queen's recommendations – which are specific to our institution and the broader region of Eastern Ontario – we also would like to echo our support for the recommendations made by the Council of Ontario Universities (COU). Queen's works closely with the COU to advance university education, research and innovation in Ontario, and we value their advocacy on behalf of the sector and our collective interests.

INTRODUCTION

Higher education – not only in Ontario, but more broadly around the world – is in the midst of a very significant transformation. Changing cultural attitudes and norms, advances in technology, and evolving expectations have changed perceptions about the role that universities should play in our society. The historic view of education as a means to foster “the full development of the human personality” has more recently shifted into a perception of education as a means to an economic end. Seen as an “either-or” discussion, we run the risk of abandoning what has been called the mediation function of the university; between the competing demands of the pure pursuit of knowledge and the broader needs of the state and civil society.

The education and development of a skilled and talented workforce is viewed as one of the responsibilities of the modern university. Governments and the public look to our sector to prepare our graduates to enter the workforce ready to contribute to the economic prosperity of their communities. As our economy faces increasing technological disruption and the nature of work itself shifts, the increasing emphasis on economic impact is understandable. However, the problems we face today – and the challenges that lay ahead – will only be solved by reasserting the human development mission of the academy. The leaders of tomorrow will be those who combine expertise in their field with the contextual, transferrable skills acquired through an education focused on the pursuit of knowledge and the development of the individual.

For more than 175 years, Queen’s University has been at the forefront of educating and preparing our students to take on leading roles in addressing the most pressing challenges of our day. From the moment they arrive on campus, Queen’s students find themselves immersed in an environment that stimulates and encourages their curiosity, while supporting their growth and development. Instructed by research-intensive faculty, our students receive an education that is informed by research at the leading-edge of their discipline. Our students also benefit from a wealth of experiential learning and leadership opportunities – through work-integrated learning opportunities, leadership roles in student societies and clubs, innovation programming, and more.

Queen’s success is reflected in our student retention (94.7 per cent year 1-2 retention) and completion rates (86.2 per cent undergraduate, 88.6 per cent master’s, 84.8 per cent doctoral), all of which are at or near the best in the nation. Our graduates thrive in the labour market as well, with 90 percent of graduates employed within six months, and an average income five-years after graduation that is nearly \$8000 above their peers. Queen’s also serves a particularly important role in supporting economic opportunity in eastern Ontario, and through various partnerships, in northern Ontario – in the training of skilled

personnel as well as through the development of new technologies and intellectual property with commercial potential. Since 2013, Queen's and its regional partners have supported the creation of more than 120 startups, and provided incubation and acceleration programming to more than 600 startups and SMEs. These efforts have led to more than 1000 jobs being created or retained across the region, and helped these firms attract more than \$225 million in investments.

Like our partners across the postsecondary sector, Queen's is committed to working with the government on areas of mutual concern and priority. One recent example of this collaboration was this government's recent amendments to Bill 124, as well as its changes to the *Pension Benefits Act* in Bill 138, which have cleared the way for Queen's and its partners to establish the University Pension Plan (Ontario). This new multi-employer jointly-sponsored pension plan will reduce costs of administration, pool risk, and ensure the viability of university pensions for future generations – for which Queen's is incredibly grateful. We hope to continue working closely with the government, as well as our partners in industry, to help ensure our students graduate with the skills, competencies, and knowledge they need to make an impact in their careers. As such, Queen's is pleased to take part in these consultations ahead of the 2020 Ontario Budget, and to offer the following budget recommendations.

INVESTING IN CAREER READINESS

Experiential learning opportunities allow students to apply their classroom learning in hands-on and real-world settings, as well as to develop and hone the interpersonal skills necessary for workplace success. Serving as a bridge from the classroom to the workplace, experiential learning promotes critical thinking and reflection on how to apply their knowledge in different contexts. Coupled with challenging and stimulating field-specific programming, students who are able to access experiential learning opportunities are better positioned to make an impact in their early career roles. Employers also benefit from the creation of experiential learning opportunities – leveraging the new perspectives, ideas and viewpoints that accompany an influx of young, energetic talent.

Queen's is already recognized as a leader in experiential learning and student outcomes. Eighty-two per cent of Queen's students graduate having participated in an experiential learning opportunity, including the more than 40 per cent who participate in some form of workforce placement or internship. As well, explicit learning outcomes are embedded in all Queen's programs to promote the effective development of transferable skills such as critical thinking, problem solving and communication. These factors help contribute to Queen's leading graduate outcomes, with 90 per cent of our graduates employed six months after graduation.

However, challenges still remain in ensuring all students have access to these crucial training opportunities. One such challenge is the supply of experiential learning opportunities in the local labour market. Eastern Ontario continues to face challenges fostering economic growth, as talent continues to be drawn to major population centres. Many small- and medium-businesses would benefit greatly from the infusion of young, energetic, and enthusiastic talent that accompanies an experiential learning opportunity, but cannot afford the time, financial investment, or resources to do so. This effect is magnified in economically-distressed regions of the province – such as eastern Ontario. This results not only in lost opportunities for employers in the short-term, but also challenges in retaining highly-skilled graduate talent in the region. As graduates return to major cities in search of employment, the pool of skilled talent in the region shrinks, which further disincentivizes employers from engaging.

To allow Ontario to reach its full potential, efforts must be taken to ensure full participation in the future knowledge economy. One such measure is to incentivize small-and medium-businesses – by way of tax incentives, wage subsidies, or other measures – to create experiential learning opportunities and early-career employment opportunities. With the support of a generous donor, Queen's has partnered with the Kingston Economic Development Corporation to create the Queen's Career Apprenticeship: Kingston program. Employers who commit to a one-year, full-time job with training and career mentoring built in for a new graduate are reimbursed for four months of the gross salary to a maximum of \$4,000 per month. To date, the program has helped create nearly 30 early career opportunities for recent graduates, with up to 40 more positions planned in 2019-2020. Each of these jobs represents a highly-skilled and talented worker retained in eastern Ontario, where they will contribute to the economic, social and cultural landscape of the region. The Queen's Career Apprenticeship: Kingston program could serve as an ideal pilot project in this regard. We would encourage the Government of Ontario to explore a direct partnership with Queen's to leverage existing investments and help eastern Ontario employers create even more early-career opportunities to retain graduate talent.

To maximize Ontario's economic potential in the knowledge-based economy, we must also work to ensure that all students have the opportunity to engage in experiential learning opportunities. By committing to dedicated investments in experiential learning and skills development for students from underrepresented groups – Indigenous students, students from low-income families, students who are the first in their families to attend postsecondary, etc. – the Government can work to address challenges of representation and marginalization, while strengthening future competitiveness. Ensuring all students, regardless of their individual circumstances, have the opportunity to thrive in the new economy is both an economic and a moral imperative.

- **Queen's University recommends that the Government of Ontario commit to targeted investments in Work-Integrated Learning and early-career supports for students and new graduates. Measures under this recommendation could include:**
 - Partnering with Queen's to expand the Queen's Career Apprenticeship: Kingston program to assist even more eastern Ontario employers attract and retain skilled talent.
 - Support for small- and medium-size businesses to create experiential learning opportunities, providing much-needed skills development training for the next generation of Ontario workers.
 - Committing to dedicated investments in experiential learning and talent retention programming aimed at ensuring students from underrepresented groups and international students receive equal access and opportunity to develop the skills needed to succeed in the future workforce.

ENHANCING STUDENT LEARNING AND SUSTAINABILITY

Ontario's postsecondary institutions take pride in providing students with an unrivaled educational experience. At Queen's, our research-intensive faculty (consistently ranked amongst the best in the nation) are able to infuse their classroom teaching with the findings and insights of their research – ensuring our students are learning at the leading edge of their fields. The high research output of our faculty also strengthens the student learning experience by providing students with hands-on experiential learning opportunities working with faculty researchers. As cutting-edge research requires access to state-of-the-art equipment, our students graduate with practical experience working with industry-leading equipment and methods – providing them with a substantial competitive advantage over their peers in the academic and labour markets.

However, the impact of state-of-the-art facilities is not limited simply to laboratory settings. Responding to broader market changes, the student learning experience is evolving and changing across disciplines. Classroom teaching has evolved – becoming more interactive and collaborative in nature. When students engage in this model of active learning, they go beyond simple memorization of fact to explore the context, application and meaning of the material being presented. As a result, students engage with the material at a higher level – developing many of the interpersonal and critical-thinking skills they'll require in the workplace. The impact of Queen's active learning is reflected in both the strong employment outcomes of our graduates, as well as in the findings of the Learning Outcomes Assessment project. A national leader in the field of outcomes assessment and measurement, Queen's students demonstrated large, quantitative improvements in critical thinking, problem solving and communication in a recent longitudinal study – measuring in the 87th percentile in critical thinking. These results emphasize the considerable, real-world impact of the active model of learning.

To support this form of active learning, many postsecondary institutions have invested in the revitalization of classroom and learning facilities – Queen's is no exception. For the past several years, Queen's has been committed to enhancing the student learning experience by creating new teaching and learning spaces designed for active and collaborative learning. Active learning is best supported by flat, flexible classrooms featuring appropriate technology. These investments have resulted in the creation of twelve active learning classrooms across campus, which have been intentionally designed, built and equipped to accommodate different numbers of students in different configurations and with different technologies. The latest addition to Queen's Active Learning spaces collection – the Mitchell Hall Technology-Enabled Active Learning Spaces – can accommodate up to 240 students in small group settings with state-of-the-art equipment to facilitate deep engagement and collaboration with the material.

Recognizing the fiscal realities in which the province finds itself, Queen's understands that a large-scale investment in campus infrastructure – though needed – is not a feasible request at the current time. However, there remains a tremendous opportunity for the Government of Ontario to make a high-impact, and high-return, investment in specific campus projects which could support student learning and career readiness. An investment in student learning infrastructure – made as part of a competitive, grant or loan program – would allow Ontario's postsecondary institutions to bolster the student learning experience, and ensure our graduates enter the workforce fully prepared with the skills and competencies employers demand.

Queen's University also recommends that the government consider targeted investments – either through grants or no-interest loans – that would help postsecondary institutions invest in green building retrofits to help reduce deferred maintenance, building operating costs, as well as greenhouse gas emissions. The government could create a competitive program that would ensure good value for money in helping institutions and the government achieve their financial and environmental sustainability goals.

- **Queen's University recommends that the Government of Ontario commit to targeted investments in campus infrastructure, prioritizing investments that will improve student learning and provide graduates with hands-on experience relevant to their future careers.**
- **Queen's University recommends that the Government of Ontario create a competitive green infrastructure renewal program that would provide postsecondary institutions with grants or no-interest loans to invest in building efficiency upgrades that reduce greenhouse gas emissions, operating costs, and deferred maintenance.**

INVEST IN A WORLD-CLASS ART MUSEUM FOR EASTERN ONTARIO

Queen's University is seeking a combined investment of \$30,000,815 from the governments of Canada and Ontario through the Investing in Canada Infrastructure Program's (ICIP) community, culture and recreation stream, or through another funding mechanism. With this funding, Queen's University will be able to leverage a significant prospective philanthropic donation from a donor who wishes to help create a signature art museum and community hub for southeastern Ontario. The proposed project, valued at a total of \$75.9 million, would revitalize and substantially expand the Agnes Etherington Arts Centre (AEAC) at Queen's University to create a world-class facility in Kingston to showcase the AEAC's extraordinary collections. The project will also allow the AEAC to deliver enhanced arts-related programming for the Kingston and southeastern Ontario communities, including youth, seniors, Indigenous communities, and vulnerable populations. Further, the expanded facility will benefit tourism – attracting visitors from beyond the region, and benefiting the local economy.

As the only professionally-run art museum between Ottawa and the Greater Toronto Area, the Agnes Etherington Art Centre (AEAC) is a unique resource for southeastern Ontario. It is open and free to the public, offering roughly a dozen new exhibitions per year as well as community space and art-related community programming, including many in support of the region's elementary and secondary school curricula.

Relying on the unique resources and expertise housed at the AEAC, Queen's University is proud to offer the only Master of Art Conservation program in Canada, where students specialize in the conservation of paintings, artifacts or paper objects, and carry out research in conservation science. Because of this signature program, and given the curatorial needs of AEAC programming, Queen's and Kingston can claim to produce many of the leading curators, gallery directors, art historians, and art conservators in Ontario. The hands-on experience they develop here guarantees sector-leading jobs for our graduates and staff experts, who have taken on leading roles in the province, across Canada, and around the world.

The AEAC holds more than 17,000 works of art, with major concentrations of contemporary art, Canadian historical art, Baroque-era paintings of the Dutch Golden Age, and African art. The Canadian collections include fine early topographical watercolours and major examples of 20th century painting, and embraces Inuit and Indigenous art, as well as historic dress and decorative arts reflecting the history of the region. The historical European holdings are of exceptional quality and depth. At their core is The Bader Collection, with nearly 200 paintings including four by Rembrandt – the largest collection of his works in Canada. The contemporary art collection is largely Canadian, with strong representation of socially engaged art and major examples of electronic art.

- **Queen's University encourages the Government of Ontario to nominate Queen's ICIP application for the Agnes Etherington Arts Centre expansion and revitalization project to the Federal Government for its consideration, or to work with Queen's to identify other funding mechanisms for leveraging a prospective philanthropic donation.**

SUPPORTING CAMPUS INNOVATORS

Universities support and grow their local economies in a number of different ways - through procurement, consumption by the student population, and by educating the next generation of highly-skilled workers. They are also hotbeds of innovation and entrepreneurship – bringing together smart, driven students with the daring to launch their dream ventures. Whether they build a serviceable small or medium business, or succeed in building a high-impact venture-backed firm, these student innovators and entrepreneurs have the chance to become the job-creators, disruptors, or titans of tomorrow.

At Queen's, entrepreneurial students have the opportunity to receive hands-on support and mentorship through a variety of programs offered by the Dunin-Deshpande Queen's Innovation Centre (DDQIC). Created as a lean startup in 2012, and previously funded by the Campus-Linked Accelerator program, the DDQIC has grown to become a driver of innovation and entrepreneurship activity across eastern Ontario. The Centre's mission is to encourage, enable and support the innovation activities of students, professors, and community entrepreneurs through incubators, accelerators, joint courses, pitch competitions and more.

In addition to serving as hotbeds of student talent, university research also brings about meaningful economic benefits. Campus research can lead to the creation of new intellectual property with high-potential for commercialization. These discoveries, when properly nurtured and positioned, can lead to the creation of high-impact new firms – either through licensing of research-sourced IP, or spin-off companies led by the inventors themselves. While some of the advances being developed in campus labs take time to transition from concept to consumer product, many more are just steps away from becoming “the next big thing,” provided they can navigate the complexities of commercialization.

Queen's has long been a leader among Canadian universities in commercializing technologies and IP emerging from research. Since 1987, Queen's researchers' discoveries have led to more than 500 patents and over 50 spin-off companies – attracting outside investments in excess of \$1.4 billion, and creating hundreds of direct and indirect jobs. The impact of Queen's research has allowed the university to take on a central role in the emerging eastern Ontario innovation ecosystem – breathing new life into a region that has

faced challenges fostering economic growth. The research capacity of universities also helps attract companies from outside of Ontario, and encourages them to invest in the province. A successful research partnership can lead to the establishment of a larger local presence, as partners look to strengthen their connections to not only the university's leading research and development capacity, but also to a supply of highly-qualified graduates.

By making targeted, impact-focused investments in entrepreneurial support and mentorship, as well as support for commercialization and technology transfer of university research IP, the Government of Ontario would be sending a clear message that our province supports both innovators and the jobs that stem from their creations. It would also signal to the global research and innovation community that Ontario is the ideal place to bring their ideas to life. Further, by supporting student and community entrepreneurship, the Government would be laying the foundation for strong regional economies, capable of leveraging and bolstering Ontario's existing strengths and capacities.

- **Queen's University recommends that the Government of Ontario partner with postsecondary institutions to support campus innovation and commercialization activities, which contribute to regional and provincial economic opportunity.**

ADDRESSING LABOUR MARKET NEEDS

Employers look to universities to train and graduate students with both the industry-specific "hard skills" required by their industry, as well as the transferrable skills – such as critical thinking, communication, and organizational capacity – needed to succeed in the changing workforce. However, as the nature of work itself continues to evolve and be disrupted, these needs change. Highly technical fields suffer from a shortage of qualified graduates to fill jobs and, as demographics change, more long-time employees approach retirement. To ensure our graduates are up to the task, institutions need to be aware of, and responsive to, industry needs.

However, universities face a number of obstacles in responding to market demand. The enrolment corridor – first implemented as part of the second round of Strategic Mandate Agreements – remains unchanged in SMA3. As such, enrolment growth will be capped through 2025 based on a corridor mid-point set nearly a decade earlier. Coupled with the 10 per cent reduction and two-year tuition freeze announced in January 2019, universities such as Queen's are faced with rising costs and limited means to raise new revenue – impacting both present-state operations and our ability to respond to emerging labour market needs.

Recognizing that the government is not in a position for extensive enrolment growth at this time, Queen's would instead recommend exploring opportunities to permit targeted, funded enrolment growth in high-demand fields. As part of a comprehensive process,

institutions could submit their proposals for new programs and enrolment spaces, in fields where there is demonstrated demand from the labour market.

- **Queen's University recommends that the Government of Ontario work with institutions to address student and labour market demand for innovative new programming and skills training in high-demand fields.**

CONCLUSION

Ontario's universities have an important role to play in promoting economic prosperity. Employers count on us to ensure our graduates have the skillset necessary for success in a labour market experiencing rapid change. At the same time, the research conducted on Ontario campuses leads to the development of new technologies that are helping legacy industries tackle new challenges, or are being commercialized in their own right – creating jobs and supporting economic growth.

Queen's recognizes the fiscal challenges identified by the government and the need to ensure that provincial expenditures are tied to demonstrable outcomes. We believe the recommendations offered herein strike this balance, and will allow Queen's and other Ontario universities to continue their role in educating and preparing our students for the challenges of the modern workforce. We thank the Government of Ontario for allowing Queen's to participate in the 2020 Ontario Pre-Budget Consultation process, and look forward to continuing to engage with the Government on matters of mutual interest.