



# Queen's University

Written Submission for the Pre-Budget Consultations in  
Advance of the 2021 Federal Budget

August 2020



**Queen's University recommends the Government of Canada...**

**Invest in Campus Infrastructure**

- *Develop a targeted Emissions Reduction Infrastructure Program for the postsecondary sector, to reduce carbon emissions and help adapt campuses to the new post-COVID reality.*
- *Provide financial support for the Agnes Etherington Art Centre project – leveraging a multi-million dollar philanthropic gift – to support arts and culture in Eastern Ontario.*

**Investing in Canadian Low-Carbon Leadership**

- *Invest \$2 million per year, for five years, to support the Institute for Sustainable Finance – Canada's first collaborative research hub, focused on increasing Canada's sustainable finance capacity and accelerating Canada's transition to sustainable finance.*
- *Engage with the provincial and territorial governments to develop a national small modular reactor (SMR) research and development strategy.*

**Invest in Jobs, Talent and Prosperity**

- *Develop a comprehensive Post-COVID Skills and Recovery Strategy to boost Canada's pool of highly-skilled talent, while promoting inclusive growth and recovery.*
- *Support the regional economic development capacity of postsecondary institutions.*

**Introduction**

For nearly 180 years, Queen's has been led the way in addressing the most pressing issues of our day, while preparing the next generation of academic, government, and private sector leaders. Since 1841, Queen's has combined a transformative learning experience and research-intensive focus – creating an environment that fosters discovery and innovation, while offering unparalleled growth and learning opportunities. Through this commitment to excellence, Queen's established itself as a leading Canadian university – one which prepares its graduates to excel in their chosen careers. The tradition continues today – in our medical and nursing graduates on the front lines; in the laboratories of our dedicated researchers; and in our students, volunteering in their communities.

The COVID-19 pandemic has been one such challenge. In the face of tremendous turmoil and global disruption, the government was quick to unveil a series of support measures for postsecondary students. Queen's is deeply appreciative of all this government has done to help students weather the storm, and provide security and stability for those most at risk of academic disruption. As we begin to recover, Canada's postsecondary institutions are ready to play our part in ensuring post-COVID prosperity. As we echo the recommendations of our partners across the postsecondary sector – including the U15 and Universities Canada, Queen's is also pleased to offer its recommendations.

**Investing in Campus Infrastructure**

The 2021 budget offers a unique opportunity to explore ways we might reduce Canada's environmental footprint, while encouraging post-COVID economic recovery. One way to accomplish these joint aims is by investing in green infrastructure across Canada, including on postsecondary campuses. Canada's universities are ideal partners to deliver an infrastructure-based stimulus program. As demonstrated by the success of the *Post-Secondary Institutions Strategic Investment Fund*, our sector is able to identify and rapidly action infrastructure investments. Further, campus infrastructure serves the educational and research missions of the academy, as well as the needs of the broader community. Canada's universities consist of an extensive network of labs, classrooms, residences and offices. While some of these spaces are

located in new, highly-efficient buildings, others are located in legacy infrastructure. As identified by the *Expert Panel on Sustainable Finance*, universities, hospitals, and other broader public sector groups have yet to see major investments in projects to retrofit older facilities and decrease their energy footprints. To date, the postsecondary sector has identified nearly \$5 billion worth of shovel-ready campus infrastructure projects – many of which focus on reducing the environmental impact of campus activities. COVID-19 has also highlighted the need for a national network of research labs, focussed on infectious disease, vaccine testing, and preparations for future pandemics. A national investment in containment-level laboratories would leverage existing university infrastructure, foster collaboration between research institutions, and diversify our national network – providing better protection for our entire society over the long term.

Queen's has identified a number of potential projects – including retrofits, laboratory revitalizations, and geothermal heating and cooling systems – which could be implemented rapidly and deliver considerable emissions reductions. These projects support Queen's Climate Action Plan, which targets a 35 per cent reduction in CO2 emissions by 2020, as well as carbon neutrality by 2040. To capitalize on this opportunity and reduce Canada's environmental footprint, we recommend that Budget 2021 create a targeted Emissions Reduction Infrastructure Program for the postsecondary sector. This fund would support projects that seek to reduce campus carbon emissions. In implementing this proposal, the government can achieve meaningful and rapid progress on both its climate action and COVID-19 recovery priorities, by helping universities reduce the carbon footprint of their campuses.

Queen's is also proposing to build a world-class art centre on the current site of the Agnes Etherington Art Centre (AEAC) – the only professionally-run art museum between Ottawa and the Greater Toronto Area. Leveraging a significant philanthropic donation of \$40-million (USD) from Bader Philanthropies, Inc., an investment from the federal government would allow Queen's to create one of the largest university art museums in Canada. The new facility would bring together state-of-the-art learning spaces and art conservation laboratories with vibrant new galleries and public cultural spaces, with an emphasis on access and programming for the community. The facility would also feature selections from the university's renowned collection, including Contemporary, Canadian, Indigenous, European, and African art and material culture. An investment in this new facility would not only deliver direct, high-ROI infrastructure stimulus and create jobs during construction – it would also expand one of eastern Ontario's leading arts and cultural attractions, supporting the revitalization of tourism in eastern Ontario.

### **Investing in Canadian Low-Carbon Leadership**

The post-COVID recovery is a chance to position Canada as a leader of tomorrow's economy. As outlined by the *Expert Panel on Sustainable Finance*, this is the time to develop a long-term vision for our transition to a low-carbon, sustainable economy. Making this transition will require focused policies to help businesses and investors respond to the opportunity.

In November 2019, Queen's launched *The Institute for Sustainable Finance* (ISF) at the Smith School of Business – a first-of-its-kind collaborative hub, bringing together academia, the private sector, and government to increase Canada's sustainable finance capacity and accelerate Canada's transition to sustainable finance. As part of its mandate, the ISF established the Canadian Sustainable Finance Network (CSFN), an independent research and educational network of 63 researchers, from 22 academic institutions, in nine provinces. This pan-Canadian network will be essential to share learnings and best practices between academic, industry, and government partners – opening the door to future research, and creating domestic and global partnerships. The ISF is currently developing a *Capital Mobilization Plan*

to assist in developing a sector-by sector roadmap to shift capital investment towards decarbonizing the Canadian economy. To date, this government has taken a number of steps to address climate change – including a price on carbon emissions. By investing in the ISF, the government can demonstrate its commitment to an economically, and environmentally, sustainable future. By aligning financial knowledge and tools with climate change imperatives, the ISF will foster our country's leadership in the shift to a low-carbon global economy, provide domestic, leading-edge research and expertise, and establish Canada as a leader in this emerging field.

Developing clean, reliable energy sources is also a priority. In late 2019, the premiers of Ontario, New Brunswick and Saskatchewan signed of memorandum of understanding to cooperate in developing small, modular nuclear reactors (SMRs) to address climate change, meet energy demand, and support economic development, research, and innovation. As the home of the Queen's Nuclear Materials Group – Canada's largest research group in its field – Queen's welcomed this announcement as an opportunity to leverage growing domestic expertise and position Canada as a global leader in SMR design, development and implementation. The Nuclear Materials Group studies how materials behave when exposed to a nuclear reactor environment – using a proton accelerator to introduce damage into materials at a microscopic scale. By studying the effects of this damage, our researchers are shaping the development of the next generation of newer, safer reactors. Queen's is also a partner on an NSERC CREATE grant for Small Modular Advanced Reactor Training (SMART). The partnership aims to provide a globally recognized program for SMR-specific training that meets the evolving needs of the nuclear sector, while providing students with experience in the nuclear field.

As was highlighted in the 2017 *Envisioning a Competitive Low-Carbon Energy Future* report – drafted following a joint Queen's/Natural Resources Canada consultation – nuclear will play a vital role in meeting future energy demands. Wide-scale deployment of SMRs will provide low-emissions energy to power Canada's growth and prosperity – aiding economic recovery, while helping meet our nation's climate targets. SMR technology will also provide a crucial source of clean, efficient, reliable energy to rural and remote areas of the country – including northern and Indigenous communities. Canada's emerging expertise – as well as the leading research strength present at Queen's – presents an opportunity to stake our claim as global leaders in SMR technology. Queen's encourages the federal government to work with the provinces and territories to develop a comprehensive research, commercialization, and talent development/mobilization strategy around nuclear energy. Together, Canada can lead the way – creating thousands of highly-skilled domestic jobs in research, manufacturing, commercialization, and operation of SMR technology, while promoting low-emission, sustainable energy.

### **Investing in Jobs, Talent and Prosperity**

To date, more than three million Canadians – largely women, young people and other vulnerable workers in the service economy – lost their jobs or had earnings significantly reduced due to the pandemic. Some of these jobs may not return, and others may require different or additional skills. In sectors that escaped major job losses – largely roles conducive to remote work – the pandemic's legacy may be increased global competition for work. Protecting Canada's workforce competitiveness means Canada must be a leader in talent, adaptability, and innovation. While Queen's is proud to note that 67 per cent of its graduates move on to further studies, Canada continues to lag behind the OECD average in terms of percentage of the population with a graduate degree. Indigenous students, women, and students from equity-seeking groups are more-severely-impacted by this discrepancy – contributing to inequality, high unemployment, and economic marginalization.

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Rather than treating these as separate issues, Queen's calls on the government to commit to a comprehensive "Post-COVID Skills and Recovery Strategy". This strategy would provide funding to develop micro-credential programs (both stand-alone programs, as well stackable for credit as part of an undergraduate/graduate degree), expand graduate and post-graduate research scholarship and fellowship grants, and create experiential/first-career work opportunities – all directed at ensuring the Canadian workforce has the skills the post-COVID economy will demand. Funding could be earmarked for specific supports for learners from equity-seeking groups, as well as retraining of workers in sectors at high-risk for automation or other job losses. This proposal builds off of Budget 2019's *Canada Training Credit* and *Employment Insurance Training Support Benefit* programs. Through this "Post-COVID Skills and Recovery Strategy", Canadian employers will have access to a pool of highly-skilled, diverse, and globally-conscious human capital necessary to succeed.

Queen's also encourages the government to work with the postsecondary sector as part of a comprehensive regional economic development strategy. Universities support and grow their local economies in a number of different ways - including through procurement and by educating the next generation of highly-skilled workers. They are also hotbeds of innovation and entrepreneurship, through commercialization of research-derived IP. Queen's is a leader among Canadian universities in commercializing technologies and IP emerging from research – with more than 500 patents-issued and over 50 spin-off companies formed since 1987. These firms have attracted more than \$1.5 billion in investments and created hundreds of direct and indirect jobs in eastern Ontario. By making targeted, impact-focused investments in research commercialization and innovation, and further investing in the regional economy through the federal development agencies, the government can lay the foundation for strong regional economies built around the skilled talent and research capacity of Canada's postsecondary institutions.

### **Conclusion**

Queen's University extends its sincere appreciation to the House of Commons Standing Committee on Finance for the opportunity to participate in this pre-budget consultation.