University of Manitoba:
Pre-Budget Submission 2019

FRONT AND CENTRE
THE CAMPAIGN FOR THE UNIVERSITY OF MANITOBA

UNIVERSITY OF MANITOBA

RECOMMENDATIONS

- **Recommendation 1:** Invest in new scholarships to support Indigenous graduate students and postdoctoral fellows to build a cohort of Indigenous faculty.

- **Recommendation 2:** Increase direct student financial support for First Nations, Inuit and Métis learners; and enhance institutional programs that promote Indigenous student success throughout the post-secondary education continuum.

- **Recommendation 3:** Provide sustained financial support for the National Centre for Truth and Reconciliation to ensure continued reconciliation efforts with Canada's Indigenous Peoples by implementing the TRC's calls to action.

- **Recommendation 4:** Continue investments in the Research Support Fund to address the full cost of research.

- **Recommendation 5:** Invest to ensure that students have a work-integrated learning experience during their post-secondary studies, and expand federal work integrated learning programs across sectors and disciplines.

- **Recommendation 6:** Further invest in the Fundamental Science Review proposal to increase annual scholarship and fellowship funding for graduate students by $140 million by 2022-23, with priority given to women, Indigenous Peoples, visible minorities and peoples with disabilities.

- **Recommendation 7:** Expand the Undergraduate Student Research Awards, as a means to increase the number of students pursuing graduate studies.

- **Recommendation 8:** Continue to invest in infrastructure to attract and retain talent that will drive discovery and the economy.

- **Recommendation 9:** Continue to dedicate specific funds to universities for infrastructure projects.

INTRODUCTION

The University of Manitoba welcomes the opportunity to provide recommendations to the House of Commons Standing Committee on Finance as part of the 2019 pre-budget consultation: "Economic Growth: Ensuring Canada's Competitiveness."

Our university plays an integral role in the competitiveness of Manitoba, generating $1.8 billion in economic activity annually, supporting more than 20,000 local jobs and educating future leaders.

Currently, close to 30,000 students are enrolled. New learning experiences give them the tools to take their place as leaders in their chosen fields. Graduate scholars and researchers are making discoveries that expand the economy and improve lives around the world.

Building on the significant investments in research made in Budget 2018, the University of Manitoba is making recommendations that will further support our role in driving Canada's competitiveness, bringing more Canadians into the research eco-system system, and developing the talent that our economy will depend on in this changing economic landscape.

INDIGENOUS ACHIEVEMENT

In Canada, only 11 per cent of Indigenous people aged 25 to 34 have a university degree, compared to 33 per cent of non-Indigenous Canadians in the same age group. As a result, Indigenous peoples on average earn less, occupy fewer managerial and professional jobs, and are more likely to be unemployed.

To ensure our competitiveness globally, measures to better support Indigenous peoples to pursue post-secondary studies—and encouraging their success—is critical.

The University of Manitoba welcomes the federal government's 2018 commitment to support for post-secondary education and skills training for Indigenous Peoples, to preserve and protect Indigenous languages and cultures and to support Métis Nation priorities, including post-secondary education. Supporting Indigenous Achievement is a strategic priority for the University of Manitoba. Through tutoring, mentoring, health and healing programs, we are working to empower students to succeed. Programs aimed at improving Indigenous achievement are varied and include:

- **Ongomiizwin – Indigenous Institute of Health and Healing** will lead the response to the health-related calls to action made by the Truth and Reconciliation Commission of Canada (TRC). Its work is

guided by Knowledge Keepers and Elders and helps to achieve health and wellness of Indigenous peoples.

- **Indigenous Business Education Partners** (IBEP) provides academic and financial support to Indigenous students pursuing a Bachelor of Commerce degree at the I.H. Asper School of Business. IBEP graduates hold key positions at major corporations and non-profit organizations, and have started their own businesses across Manitoba, Canada, and the world.

- The **Engineering Access Program** is the country's most successful program of its kind, having graduated more than 100 Indigenous engineers.

The University of Manitoba is also home to the National Centre for Truth and Reconciliation (NCTR). The NCTR is the permanent national institution that emerged from the Indian Residential Schools Settlement Agreement and the TRC. It is dedicated to preserving the truth of Residential Schools and advancing reconciliation. With a mandate in the areas of archives, education, research and community engagement, the NCTR is a leading voice in conversations of Truth and Reconciliation in the country.

Indigenous peoples will represent an estimated 18 per cent of Manitoba's population by 2026—with First Nations, Métis, and Inuit youth the fastest-growing group— and ensuring their success in post-secondary education, through increased financial support and other forms of support and through continued efforts at reconciliation, is key to our collective enhanced competitiveness.

The University of Manitoba recommends:

- Investing in new scholarships to support Indigenous graduate students and postdoctoral fellows to build a cohort of Indigenous faculty.

- Increasing direct student financial support for First Nations, Inuit and Métis learners; and enhancing institutional programs that promote Indigenous student success throughout the post-secondary education continuum.

- Providing sustained financial support for the NCTR to ensure continued reconciliation efforts with Canada's Indigenous Peoples by implementing the TRC's calls to action.

RESEARCH AND DEVELOPMENT

The University of Manitoba welcomed significant research investments in Budget 2018.

Continued and increased federal support for research and development, support for undergraduate research, support for indirect costs of research and support for work-integrated learning opportunities is critical. Increased and sustained research funding will enhance opportunities for early and mid-career researchers, and will advance efforts to improve gender equity and diversity in science.

Students and faculty at the University of Manitoba are using research to learn, train, contribute to the economy and to improve outcomes in numerous areas. Examples of research excellence include:

- Major global public health initiatives led by University of Manitoba researchers that are saving and improving lives in more than 20 countries. Initiatives in south Asia, Africa and Ukraine include programs to improve maternal, newborn and child health, studies on the epidemiology and evaluation of HIV prevention programs, and mathematical modeling to explain HIV transmission dynamics and impact of different interventions.

- Internationally renowned programs of research in Arctic science, climate change and its effects on sea ice. The Churchill Marine Observatory, currently under construction, will enhance research capacity in this area, while the Amundsen research vessel is a platform to conduct research in ice-covered waters.

Complementing research excellence, work-integrated learning opportunities further enhance the student experience, benefit industry and ultimately drive increased economic competitiveness. There are many examples of work-integrated learning at the University of Manitoba and we will continue to develop these opportunities. Expanding programs like the Student Work-Integrated Learning Program (SWILP) across sectors—both for-profit and non-profit—would provide more students and employers with an opportunity to access the benefits of a work integrated learning opportunity.

Undergraduate students who participate in research projects are more likely to pursue graduate studies than those who do not. Each year, the Natural Sciences and Engineering Research Council of Canada (NSERC) supports about 3,000 undergraduates in research activities through their Undergraduate Student Research Awards program, however the other funding councils do not have similar programs.

Graduate students at the University of Manitoba are contributing their own research discoveries to real-world problems. The Three Minute Thesis

competition, for example, showcases graduate student research ranging from climate change and the Arctic, to transformative changes to healthcare. Expanding access to undergraduate research awards will ultimately support more students pursuing graduate studies with more opportunity to pursue solutions to some of today's greatest challenges.

Finally, a world-class research environment requires support for institutional costs of research, such as facility costs and technology transfer supports. Budget 2018 did not increase the proportion of funding for these costs and increased investment in the research support fund will recognize and address the true cost of research.

The University of Manitoba recommends:

- Continued investments in the Research Support Fund to address the full cost of research.

- Investments to ensure students have a work integrated learning experience during their post-secondary studies and an overall expansion of federal work integrated learning programs across sectors and disciplines.

- Further investments in the Fundamental Science Review proposal to increase annual scholarship and fellowship funding for graduate students by $140 million by 2022-23, with priority given to women, Indigenous peoples, visible minorities and peoples with disabilities.

- Expansion of the Undergraduate Student Research Awards to other councils, as a means to increase the number of students pursuing graduate studies.

INFRASTRUCTURE

Canada's economy depends heavily upon highly educated, skilled, and analytical individuals produced by Canadian universities, but supporting them requires proper facilities and equipment.

The University of Manitoba welcomed the government's commitment to a sustained plan to fund state-of the-art infrastructure through the Canada Foundation for Innovation (CFI) in Budget 2018. This is a crucial step to attracting and retaining internationally renowned researchers, fostering collaboration across disciplines and sectors, supporting business innovation and promoting long-term planning.

Regular funding will also provide stable support for researchers and their facilities through federally funded mechanisms including the Canada

Excellence Research Chairs program, the Canada First Research Excellence fund and the Post-Secondary Institutions Strategic Investment Fund.

Federal support has helped the University of Manitoba develop the following modern facilities:

Stanley Pauley Engineering Building

The University of Manitoba is expanding its capacity for engineering research and training by constructing the Engineering Innovation Centre, also known as the Stanley Pauley Engineering Building. This facility will provide additional dedicated infrastructure to fuel innovation in the development of biomedical devices, energy systems, aerospace and civil infrastructure. It will create new spaces for research and teaching labs, industry collaboration, prototype development and commercialization.

Thanks to federal support through the Strategic Investment Fund, this project will increase the output of locally trained engineers that will help to satisfy the existing market demand for trained engineers in all disciplines, support and invigorate Manitoba’s industrial economy in the future and ensure University-based innovations are leveraged into economic benefits.

Smartpark Innovation Hub

The University of Manitoba's Smartpark Innovation Hub will improve the quality of facilities for research and innovation including commercialization spaces that will encourage collaborative partnerships, cross-sector applications and develop highly agile networked enterprises; resulting in advanced technologies, improved competitiveness and increased economic development.

Thanks to the 50 per cent federal funding received under the Post-Secondary Institutions Strategic Investment Fund, the Smartpark Innovation Hub will have an economic impact on jobs, earnings and sales in Manitoba. Long term economic impact modelling suggests the Smartpark Innovation Hub will generate over $37 million in the provincial economy. Approximately 345 additional full time equivalent jobs in the province will be attributable to the presence of the Smartpark Innovation Hub.

Churchill Marine Observatory

The Churchill Marine Observatory (CMO) will be a globally unique, highly innovative, multidisciplinary research facility located in Churchill, Manitoba, adjacent to Canada’s only Arctic deep-water port. The CMO will directly address technological, scientific, and economic issues pertaining to Arctic marine transportation and oil and gas exploration and development throughout the Arctic.

Thanks to the 39 per cent federal support through the CFI, CMO will position Canada as a global leader of research into the detection, impacts and mitigation of oil spills in sea ice. Knowledge gained through CMO will strengthen Canada's technological capacity to protect the Arctic environment. Partnerships with Indigenous organizations will ensure knowledge exchange; the private sector will provide market-driven uptake of technology; and various levels of government will transfer knowledge into policy and regulation.

The University of Manitoba recommends:

- Continued investment in infrastructure to attract and retain talent that will drive discovery and the economy.

- Continued dedication of specific funds to universities for infrastructure projects.

CONCLUSION

Federal investment in post-secondary education, innovation and research drives economic competitiveness, provides opportunities for young people and addresses the most urgent issues of our time, like global population health, infectious disease, Arctic system science, food security, and climate change. Only through investments in post-secondary education do we have the potential to solve these critical challenges while simultaneously training the workforce of the future and shaping the economy. There can be no better investment in Canada's future.

We thank the Committee for its consideration.