House of Commons
Chambre des communes
Canada

House of Commons Standing Committee on Finance – Pre-budget Consultations 2013

This brief is submitted by:

(•) **an organization** **Organization name:** Queen's University

or

( ) **an individual** **Name:** _____

Topic: Innovation and commercialization

*Recommendation 1: Please provide a short summary of your recommendation.

Queen's University, a member of the U15 group of Canadian Research Universities, supports the proposed Excellence Fund as a mechanism to reward research performance based on current and future success for Tri-Council funding, through open and highly competitive processes. The Excellence Fund will help advance Canada's long-term economic competitiveness and secure the country's position within the fast-growing ranks of countries investing heavily in research excellence to the long-term benefit of their citizens. This will further strengthen and leverage investments already in place.

Expected cost or savings: From the pull-down menus, please indicate the expected cost or savings of your recommendation to the federal government and the period of time to which the expected cost or savings is related.

$100 million -$499.9 million

5 or more years

Federal funding: Please provide a precise indication of how the federal government could fund your recommendation. For example, indicate what federal spending should be reallocated, what federal tax measure(s) should be introduced, eliminated or changed, etc.

Along with the U15 proposal, we believe an incremental approach to the Excellence Fund will be fiscally responsible and sound policy. Starting with a $100 million allocation for 2014-15 and gradually increasing each year to a sustained $400 million annual allocation, funds could be gradually released from reallocations or new revenues once Canada returns to fiscal balance. Furthermore, we strongly urge continued investment in Tri-Council programs and infrastructure support. R&D funding is critical to global competitiveness while addressing the safety, security and health of all Canadians.

Intended beneficiaries: Please indicate the groups of individuals, the sector(s) and/or the regions that would benefit by implementation of your recommendation.

Canadians benefit from the cumulative impact of Tri-Council funding and knowledge mobilization through national networks that the Excellence Fund will support. For example, Queen's and York University work together to stop bullying, including cyberbullying, through their Promoting Relations and Eliminating Violence project (PREVNet). PREVNet aims to ensure that every child can grow up happy, healthy and safe. Queen's-led Technology Evaluation in the Elderly Network (TVN) supports multidisciplinary research aimed at improving health care choices for an aging population and their families.

General impacts: Depending on the nature of your recommendation, please indicate how the standard of living of Canadians would be improved, jobs would be created, people would be trained, etc.

The quality of life for Canadians will be improved in highly tangible ways through research excellence, innovation and commercialization that the Excellence Fund will support. For example, Canadian communities and municipal governments will benefit from less costly and more sustainable innovations to support Canada's vast infrastructure network of roads, streets, bridges, dams, tunnels, landfill sites, and water and sewer systems; this is the focus of the Queen's-RMC GeoEngineering Centre which is home to three Canada Research Chairs and has placed graduates in industry all across Canada.

Topic: Please select from the pull-down menu

Recommendation 2: Please provide a short summary of your recommendation.

Expected cost or savings: From the pull-down menus, please indicate the expected cost or savings of your recommendation to the federal government and the period of time to which the expected cost or savings is related.

Please select from the drop down menu

Please select from the drop down menu

Federal funding: Please provide a precise indication of how the federal government could fund your recommendation. For example, indicate what federal spending should be reallocated, what federal tax measure(s) should be introduced, eliminated or changed, etc.

Intended beneficiaries: Please indicate the groups of individuals, the sector(s) and/or the regions that would benefit by implementation of your recommendation.

General impacts: Depending on the nature of your recommendation, please indicate how the standard of living of Canadians would be improved, jobs would be created, people would be trained, etc.

Topic: Please select from the pull-down menu

Recommendation 3: Please provide a short summary of your recommendation.

Expected cost or savings: From the pull-down menus, please indicate the expected cost or savings of your recommendation to the federal government and the period of time to which the expected cost or savings is related.

Please select from the drop down menu

Please select from the drop down menu

Federal funding: Please provide a precise indication of how the federal government could fund your recommendation. For example, indicate what federal spending should be reallocated, what federal tax measure(s) should be introduced, eliminated or changed, etc.

Intended beneficiaries: Please indicate the groups of individuals, the sector(s) and/or the regions that would benefit by implementation of your recommendation.

General impacts: Depending on the nature of your recommendation, please indicate how the standard of living of Canadians would be improved, jobs would be created, people would be trained, etc.

Please use this page if you wish to provide more explanation about your recommendation(s).

In addition to leveraging core funding support from the Tri-Councils and investigator-initiated basic and applied research, the Excellence Fund will help to further advance large-scale, multi-partner peer-reviewed projects that address some of the most pressing needs of Canadians and the most fundamental questions about how the universe works.

Headquartered at Queen's University, Technology Evaluation in the Elderly Network (TVN) is a not-for-profit organization supporting multidisciplinary research related to health care tools, technology and interventions for seriously ill elderly patients and their families. At a time when the sustainability of current levels of health funding is under considerable pressure, TVN aims to improve health care choices for an aging population and provide patients, their families, health care providers and practitioners, and system decision makers and influencers with results and best practices.

Major science facilities, such as SNOLab in Sudbury, which originated at Queen's University in the late 1980s, positions Canada as a leader in particle astrophysics. In their recent report, the Expert Panel on the State of Science and Technology in Canada for 2012 noted that astronomy and astrophysics is a sub-field in which Canada leads the world in scientific impact, as measured by bibliometrics. Leveraging investments from NSERC, CFI, the Canada Research Chairs program, and industry partners has enabled Queen's to recruit a world-renowned researcher and team to assume the Canada Excellence Research Chair in Experimental Particle Astrophysics, which will further cement Canada's reputation in this field.

The Excellence Fund will also provide Canada with a growing cadre of young entrepreneurs who, based on their rigorous academic training, highly proficient technical skills, and close interaction with industry partners, can enter the marketplace soon after graduation with products and services that address industry needs. For example, Laser Depth Dynamics, a company started by Paul Webster, a recent PhD graduate from the Queen's Department of Physics, offers the only technology that can accurately and non-destructively measure penetration depth during production in processes such as laser welding, drilling and cutting. This company started with basic research driven by Webster's curiosity about high-powered lasers and now solves a major industrial problem.

Israel is the recognized “start-up nation” where support for excellence in basic research has translated into a vast number of commercial products and services. As Queen's Principal Daniel Woolf noted in his blog on a recent trip to Israel, "Canada could profit by the example." (See http://www.queensu.ca/connect/principal/.)

*Please note that at least one recommendation must be provided