



**Submission to the House Standing Committee on Finance
Pre-budget Consultations for Budget 2014
August 2, 2013**

Engineers Canada is the voice of the 12 provincial and territorial regulators of the engineering profession in Canada. Together, we represent more than 260 000 professional engineers.

Those 260, 000 professional engineers include consulting engineers, engineers who work in municipal, provincial and federal governments, academia, research, start-ups, and business. Many of them are small businesses in rural communities, or part of international companies who know they can find engineering excellence in Canada's engineering profession.

1. *Funding capacity building for infrastructure risk assessments can help keep Canadians safer in the face of changing climate.*

The climate North American is ever changing, and the Canadian public's safety depends on adaptable infrastructure. To keep Canadians safe from the devastating power of extreme weather, we recommend that the federal government allocate a portion of the \$47 billion in new funding under the Building Canada Plan to incorporate risk assessments to identify the vulnerability of new and existing infrastructure to extreme weather events, and assist owners in adapting their infrastructure.

Engineers Canada believes that approximately \$4 million of the already allocated \$47 billion in new funding announced in the Economic Action Plan 2013 should be dedicated for adaptation of core public infrastructure to extreme weather events.

The process for allocating and receiving funds under this program should require applicants to demonstrate that they are aware of the vulnerabilities of their infrastructure and have included adaptation measures in their project proposals.

Infrastructure Canada should be directed to include and promote requirements for risk assessments and adaptation measures as part of the application and procurement process for funding under this program.

Provinces, municipalities, other infrastructure owners and ultimately all Canadians and their communities would greatly benefit from these investments. Strong, healthy communities attract investment, attract talent, and drive economic prosperity. In supporting communities in meeting those goals, the federal government can help to ensure that all Canadians affected by the economic uncertainties can rely on the things that keep our economy moving.

This investment would help to ensure that communities are able to address vulnerabilities of their infrastructure before disaster strikes. Having adaptation measures in place can mitigate costs of rebuilding and may reduce the risk to life and property.

2. STEM education funding is vital to mitigating the Canadian skills mismatch

Engineers Canada recommends that the federal government place a priority on the coordinated reallocation of \$19 million toward the promotion of science, technology, engineering and mathematics (STEM) disciplines.

The federal government promised in the Economic Action Plan 2013 to provide support to groups that are underrepresented in the job market such as persons with disabilities, youth, Aboriginal peoples and newcomers. One way the government indicated they would accomplish this, is by promoting education in fields where there is high demand from employers, including in science, technology, engineering, mathematics and the skilled trades. It is time for them to take action and see that STEM programs receive that funding.

The federal government should partner with provincial governments and stakeholders to provide information to elementary and secondary students about the opportunities available in STEM fields. Placing a priority on promoting STEM with youth will result in more skilled workers in the future. Raising awareness of the opportunities in these fields will help address anticipated skills shortages, including a forecasted shortage of engineers with specialized experience in certain regions of the country, out to 2020.

The government is not alone. Employers and industry groups also have a role to play in promoting the jobs of the future.

This reallocation would benefit Canadian youth, women, Indigenous people, and post-secondary institutions. Communities, post-secondary institutions and various industries will ultimately benefit greatly from having the skilled professionals needed to drive innovation and fill the looming skilled labour gap.

These investments will also increase Canada's competitiveness in science, technology, engineering and mathematics fields on the global scene.

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