Time to take out Canada's innovation toolbox

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By Ray Hoemsen | October 26, 2020 | Originally featured in The Hill Times

The COVID-19 pandemic has required us to rethink business models, supply chains, and capacity to respond to disruption across every part of our lives. While we have largely found new ways to live and do business, economic recovery will require significantly more.

This presents an opportunity to mobilize Canada's underutilized innovation infrastructure.

Since the 2015 election, the federal government has put an extraordinary emphasis on innovation. That's why it was a surprise, in the recent Throne Speech, to find innovation strangely absent from the government's list of priorities—and at a time when ingenuity is more important than ever.

Who's rising to the challenge of COVID-19? Those who embrace innovation. The government should give them a boost.

Innovative businesses are transforming to meet their new realities. As companies consider an uncertain future, the hard work of adaptation, productivity and competitiveness must be front and centre. But businesses can't do it alone.

The innovation infrastructure embedded within Canada's polytechnics and colleges are part of the solution. This is where businesses turn when they need to retool and re-energize.

Applied research is driven by community need, offering partners the opportunity to experiment with technology adoption and prototype development, design and demonstration, process improvement and testing. Given that intellectual property developed during projects largely remains with the business partner, applied R&D accelerates commercialization and supports growth.

With the onset of COVID-19, applied research across the country pivoted.

Projects are now supporting a whole host of new activities, from guidelines to assess the mental health of Canadian paramedics to internet-enabled dispensers of hand sanitizer. In partnership with polytechnics and colleges, companies have been keen to consider how technology can transform the way they do business, from e-commerce to e-health.

As governments consider how best to help businesses survive and thrive, it is time to double down on innovation investments that will help businesses dig out of the economy's pandemic-induced sluggishness.

Since the early 2000s, federal investments have built this capacity in Canada's college sector, helping thousands of small- and medium-sized businesses in the process. The number of institutions eligible for innovation grants has increased from a handful to more

than 110 in less than 20 years. Federal investments (through the Natural Sciences and Engineering Research Council) have grown from \$3-million in 2004 to \$86-million in 2020X Other federal programs have made an additional \$22-million available to support equipment purchases and social innovation projects.

Even before COVID-19, we could see the investments paying off.

Among Canada's 13 polytechnics, applied research resulted in 2,900 partnerships, 1,975 prototypes and involved 18,900 students last year alone. Students who get involved in applied research graduate with innovation skills, an employer network and industry experience they can leverage into full-time employment.

More than 80 per cent of business partners have fewer than 500 employees—the very same businesses that employ the vast majority of Canadians. Yet, existing funding represents a small fraction of government spending on research.

There is room to do better on business innovation spending, especially now.

For every dollar invested by government, polytechnics also leverage \$1.70 from industry partners and other sources. This highlights the value proposition and reflects a good investment of taxpayer money at a critical time.

Doubling government spending on applied research over the next two years stands to have an outsized impact on business productivity and reinvention at a time when it is needed most.

But the opportunity ahead is broader than money alone. Regions and sectors experienced the pandemic very differently and recovery is bound to be similar.

To respond to this reality, the federal government should establish economic recovery hubs hosted in the regions. Just as regional development agencies were called upon to aid struggling businesses with a wide range of supports during the pandemic, they are ideally positioned to offer flexible, tailored supports during recovery.

The regional development agencies have long-standing relationships with local innovation intermediaries and know their capacity. This will be critical to navigating businesses to those best positioned to help.

Polytechnics and colleges are motivated and ready to aid economic recovery in this postpandemic world. Coupled with capacity, expertise, experience and infrastructure, applied research is a powerful tool in the federal government's innovation toolbox. It is time to pull it out and get to work.

About the Author



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