

Forging the Way Ahead:

Innovation is a public good, and a private necessity



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INNOVATION RANKS AMONG THE MOST important, least understood and least discussed policy issues of our time. Despite its public obscurity, innovation sits at the intersection of research and commerce; scientist and entrepreneur; change and status quo; and, public good and private gain. Innovation and productivity are not only crucial to Canada's competitiveness, but also key to the living standards of Canadians. They

bridge economic policy and social policy, public good and private gain.

The global economy is now in the thrall of "structural drivers of change" which are reshaping economies, societies and the global centre of gravity. These trends include globalization, demographics, the Information Revolution, climate change and innovation. They are inexorably reshaping the existing world order.

Canada's innovation and productivity performance is mixed. The good news is that public sector investment in research is among the front rank of OECD countries. The less good news is that business sector investment in innovation in Canada ranks 15th among OECD countries in R&D expenditures as a percentage of the economy. Canadian business R&D spending is only 1 per cent of GDP, well below the OECD average of 1.6 per cent, half of what the U.S. spends and only one third of countries such as South Korea and Sweden.

Therein lies our challenge. Innovation lies at the heart of modern competitiveness. It allows us to create new products and services, produce existing products in new ways, and develop new markets. It drives productivity, growth; and our living standards. Our problem is that Canada is not an innovation leader, particularly in our business sector, and we cannot sustain our above average living standards with below average innovation investment.

So, how can we break out of this innovation deficit. First, we need better engagement mechanisms to keep innovation on the "front burner" of public attention and business strategy, holding up a "mirror" of best innovation practices to Canadian business leaders and governments. Canada should consider the establishment of a "Productivity and Innovation Council." Its mandate would be to encourage innovation and productivity by Canadian business. Its focus would be clear: to benchmark Canadian business to best practice in innovation and

productivity in our top competitor countries on a sector-by-sector basis. These benchmarks would be public, and something managements, corporate boards and markets should use in judging the performance of a company.

Second, we need to address the weakness in our venture capital sector, which has fallen far behind countries ranging from the United States to Israel to Singapore. We need a blueprint for a venture capital sector structured to meet Canada's research strengths and innovation needs, and designed to help reduce Canada's innovation deficit.

Third, we need to unclog the pipes connecting Canada's good science to our less-than-stellar commercialization of this research into new Canadian products, services and processes. These pipes are blocked with too many disincentives: a plethora of intellectual property right regimes across our universities; a costly tax incentive system for R&D, which is not delivering even average business innovation

performance; a lack of large-scale collaborative research projects in key sectors with the potential for a national payoff; under-investment in highly trained graduate students, who can be "innovation generators; and a missing "connectivity vision" to reverse our huge ICT investment gap vis-à-vis the United States.

Fourth, Canada lacks a culture and support for strong university-business interaction and collaboration. As Don Stokes has convincingly pointed out, much research and innovation is motivated by problem-solving, but this requires a deep understanding of business and consumer needs. Since Canada has a high proportion of R&D delivered through public channels, this partnership culture is particularly important.

Fifth, business needs to understand the risks of organizational bias against innovation. This is the crucial issue raised by Govindarajan and Trimble in their insightful new book: "business organizations are not built for innovation; they are

built for efficiency." In their view, the business innovation challenge is less paucity of ideas than poverty of execution; management teams are incented to optimize the profitability and growth of existing products, processes and markets, and not the costs, disruption and risks implied by innovation.

In conclusion, the global context over this decade will be characterized by uncertainty and change. It will put a positive premium on those firms, sectors and countries that are flexible, have solid fundamentals, and are capable of incenting innovation.

Productivity and innovation will crucially determine our future living standards. There is no reason for Canada to be a productivity and innovation laggard, no insurmountable obstacles before us. The solutions of better capturing research and innovation for the public good lie in our hands. If productivity and creativity are driving the economy of the future, being average is just not good enough.