A Private Sector View of Canada's Research System

Tom Jenkins
Executive Chairman, Open Text Corporation

Jenkins warned his audience that he was not going to hold back in both his critique of where research is heading in Canada. “I’m going to speak about many of the things that are unspoken in our country,” he said. “I’m going to be brutally honest amongst all of us here today about some aspects of the Canadian situation.” He based his opinion on extensive experience in reviewing how that situation has been evolving, including having a first-hand look at OECD measurements and best practices in other parts of the world that put Canada’s efforts in stark perspective. He therefore apologized in advance for taking this tack, but noted “a society should always have an honest discussion, because if it does, it’s a better society.”

He began by observing that the so-called “three pillars” of the research system — industry, government, and academia — are not so simple in Canada, which has an unusually complex assortment of shared responsibilities between its federal and the many provincial levels. The government “pillar” is actually a collection of many pillars, each with its own priorities and responsibilities. His first experience with this enormous complexity in Canada’s government “pillar” came in founding Open Text, the country’s largest software firm, which ultimately spawned Yahoo in the mid-1990s, and remains a powerful technological force that is still used by a third of all people on the Web. As for the academic “pillar”, he emphasized that the company was an exclusive creation of basic research. “Without the basic research, there would be no Open Text, there would be no billion-dollar multinational employing thousands and thousands of people.”

Jenkins recalled how enthusiastically he embraced the opportunity to discuss government support for R&D at international meetings, where he hoped to make direct comparisons that would improve the impact of systems such as the SR&ED tax credits. “We get to the chief economist at the OECD and we say ‘what other country is there that we can model from?’ They started laughing at us, and said ‘you’re Canada; you already do it the best in the world’. It was deflating a bit for us, because we wanted to find another exemplar. We as Canadians are brutally critical with each other, but the reality is that we do very well on an international level.”

He shared another primary insight that emerged from these sorts of discussions: discovering why the US and some other countries are so successful at innovation. He was told that it is because they have sorted out their approaches to defence procurement, which has gone on to become a cornerstone in their R&D strategies. While Canadians worry about assigning too large a role for military priorities in this sphere, confronting this challenge can reap huge advantages. “The reality is those nations, by whatever political or economic circumstances, have squared the circle of how you do that, how you get economic benefit and how you drive it.”

In the same way, he suggested that the poor international performance of Canada’s business sector might be overcome if the country stepped in to drive innovation by becoming a customer to this sector.

“We heard loud and clear in the innovation panel — people didn’t want handouts or subsidies, people wanted government to be their first customer. And when we went to look at some of the very successful economies, Norway and others, government was a very active participant in driving innovation.” —Tom Jenkins, Executive Chairman, Open Text Corporation

And for all the inherent research value provided by the country’s universities, Jenkins insisted they introduce a key problem. “Universities suck all the oxygen out of the room.” They are so effective at seeking out and winning every available form of government support, they distort the research system in ways that ultimately harm their own best interests within that system.

Similarly, competition matters, as Jenkins himself argued in *Policy Options* magazine in September 2011. He underscored competition as the leading factor inhibiting our productivity performance. “We will pay the piper on this and are paying the piper. This is a huge malaise for our country. We can argue about the measures of productivity, as has been done recently, but the bottom line is that it is an apples to apples measure, and you cannot ignore the decline over the last 30 years.”

He added that the implications of a lack of competitiveness could be dire for those whose livelihoods depend on research. In countries where research has not yielded commercial advantages, austerity measures have seen massive cuts to research budgets, a prospect that Canadian researchers could ultimately face if there is no clear return on this investment.

Jenkins observed that over the past three decades, Canada has moved from having 15 corporations considered to be global leaders to having 42 such enterprises. However, fewer than 10% of these corporations represent sectors with protection regimes designed to sustain them. He was referring to the six protected regimes defined by NAFTA negotiations in the 1980s: transportation, uranium, telecommunications, broadcast, financial services, and culture. “Those are six protected sectors from 30 years ago. Think about it: 30 years ago there were no cell phones, there was no Internet. Think of the profound changes that have occurred, because we have six pieces of legislation that absolutely inhibit innovation. If you’re a rational actor in the private sector, and you work within one of those six protected regimes, your aspirations are national; because the moment you go international, it’s a really rough world out there.”

“Competition matters. Competition is everything. But just like military procurement, sometimes in our society these are rather ugly things to talk about.” — Tom Jenkins, Executive Chairman, Open Text Corporation

He saw the results first hand within his own globally oriented firm, which had difficulty recruiting effective managerial talent from within Canada, since few managers had to contend with the rigours of anything but a protected domestic market.” Moreover, this kind of market provides players with additional pricing power that has enabled corporate profits to rise steadily, something that further reduces the incentive to alter the research regime in ways that would make the country more competitive. “We can only play this game for so long. It’s amazing that we’ve been able to get away with this for 30 years. Maybe we’ll get another five; we won’t get another 30.”

All this being said, however, he advocated a balanced model for innovation, one in which support for innovation from governments and universities would fairly complement pressure from forces such as competition and changing consumer tastes.

Turning from the private sector to government, he recalled a memorable insight obtained in a meeting with a procurement official at the US General Services Administration in Washington D.C., who told him that the laptop computer was created after a request from the Internal Revenue Service for portable hardware that its agents could take in the field to improve productivity. The RFP was for 5,000 machines, which would go to the company that produced the best model. “It’s an oh-so-simple story, folks, but oh-so-powerful,” he said. “What they’d do? They took a desktop, cut it up, and put it in a Samsonite briefcase, and you had the first laptop. Think of what that led to. Think of the innovations in semiconductors, the innovations in communications, the innovations in ergonomics. That led to so many things, and yet it started with procurement.”

The federal government is currently engaged in its own sweeping expenditure with the Canada First defence

strategy, a massive refit of all three branches of the country's armed forces. The amount in question is upward of half a trillion dollars, which promises to have an economic impact larger than that of the oil sands. He also noted that while these expenditures would enhance the activities of the Industrial Research Assistance Program, the Strategic Aerospace and Defence Initiative, and the Aerospace Technology Demonstration Program, the vast majority of this initiative's impact will take the form of industrial and regional benefits.

"That's why Israel, the United States, Norway etc. use procurement to drive research, and to drive innovation," he observed. "And we must learn how to do this better."

In this light, then, Jenkins recounted six key industrial capabilities identified by the six-member Defence Procurement Strategy (DPS) panel, which he chaired. These capabilities — arctic and maritime security, protecting the soldier, command and support, cyber-security, training systems, and in-service support — were proposed as the most effective areas for R&D activities supported by the DPS.

"We must connect research to solving problems, because at the end of the day that is the only place we're going to get recursive value." — Tom Jenkins, Executive Chairman, Open Text Corporation

As for prospective critics who might regard this expenditure as straying too far afield from basic scientific investigation, Jenkins recalled the findings from a survey of researchers whose work led them toward more socially and economically relevant results. They reported that they found this work to be more satisfying, which Jenkins takes to be a clear sign of where the research system should head. "We should embrace this, not fear this," he maintained. "Let us not give up core research, but let's make it relevant."

He outlined the research momentum that can emerge from this kind of collaboration, such as the Canadian Digital Media Network, one of the Centres of Excellence for Commercialization and Research (CECR). Initiated on a Stratford, Ontario satellite campus of the University of Waterloo, within three years it consisted of 6,000 participants from all walks of Canadian society. The result was a valuable clearing house for start-up firms that were aggregating around government, university, and industry, eventually yielding an influential demonstration at the 2010 G20 meeting in Toronto, where it captured the imagination of the international leaders in attendance.

"It's now been adopted by every country but one in all the multilateral meetings since. You know what this is referred to? The Canadian system. And it's all run by the Department of Foreign Affairs and International Trade (DFAIT) on servers out of Gatineau. That's what Canada can do when it puts itself on the international stage."

Nevertheless, the challenge remains of how to strike the right balance between social aspirations and economic reality. "Our competitiveness as a country and as a society will depend on our ability to make these strategic policy decisions," he concluded. "We will have to remain competitive. We cannot put our head in the sand. Our industries must compete against those international companies, we just have to think about how we motivate them."

Nobina Robinson asked Jenkins about his experience with the US Small Business Innovation Research program, and whether such a program could be implemented in Canada. He cautioned that the success of the American initiative was very much dependent on economies of scale, which might not necessarily translate into a Canadian setting.

When asked by David Watters about the reserve set aside by the Defence Procurement Strategy to prime the

pump of various R&D activities, Jenkins noted that the pool of available funds — upward of $81 billion — is larger than the reserve maintained by the Bank of Canada. Jenkins therefore insisted that every Canadian company should find ways to take advantage of this opportunity. “We should be using this leverage, because guess what folks, you’ve already paid for it as a taxpayer.”