Budget 2014: Re-balancing Innovation Support Programs
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Panel Discussion

Accelerating Innovation: How ICT is Enabling Partnerships for Success

Moderator: **Kevin Tuer**, Managing Director, Canadian Digital Media Network

Ted Hewitt, Executive Vice-President, SSHRC
Brad Jackson, Vice-President, Strategy & Sales Enablement,
Celestica Hongwei Liu, Co-Founder and CEO, MappedIn

Tuer introduced CDMN's mandate to accelerate the commercialization of digital media and information and communication technologies and explained what had been learned during the organization's first five-year term. "ICT is unique," he said. "It can be an enabler for every other single sector in Canada and the world." Unfortunately, he added, ICT is often regarded as being inexpensive to adopt, when often the opposite is true. This expense often comes in the form of opportunity costs that accompany many of these technologies.

Hewitt introduced SSRHC as an enabling agency, which makes it possible for others in the public and private sector to find the resources and build the collaborations necessary to carry out work in fields associated with ICT. By way of example, he pointed out the role of research into the development of standards for dealing with large data sets, a step that will be essential if this data is to have wider value to our economy and society. SSHRC has also made a priority out of ensuring that research data is as widely accessible as possible in order to maximize its potential benefits for Canada. SSRC has likewise built bridges to similar funding organizations around the world in order to offer Canadians as many opportunities as possible to pursue important research questions. "That's something we have to keep in mind when we talk about innovation, targets, and technology — without international collaboration, without a recognition that innovation, ideas, and talent originate and is found in Canada and everywhere else," he said. "Until we're really good at tapping into it and exploiting it, we may never find the key to prosperity."

Jackson introduced Celestica as a key player in the global supply chain, with an expertise in contract manufacturing. It was spun out of IBM Canada in 1994, with just one site in the Toronto area, and grew quickly to some 40 operations in its first decade. "We've learned a lot about technology and have really been the stewards of our customers' products," he said. "We've been shifting our business from supporting our customers' innovation to becoming much more of a source of innovation." This shift has altered the firm's own use of ICT, so that they are now adding value to their own practices as well as that of their clients. By acknowledging that they had a tremendous resource in the form of their experience and knowledge of global supply chains, Celestica began to mine this database in a directed way. The resulting insights have enabled the firm to serve its clientele all the better, and this approach is being formally commercialized as a resource for their clients.

Liu gave a very brief introduction to his own firm, which is aimed at taking the last step in Google maps, i.e. bringing this capability into indoor settings for people to navigate within buildings. This digital service is aimed at customers who service brick-and-mortar structures, such as shopping malls.

Tuer referred to a major point from David Watters presentation - the idea that R&D growth should depend on reinvesting revenues from export-led activities. He asked the panelists about the role of exports in their business. Liu, who noted that on this same day his company was un-

dertaking a product launch in China, recalled that exporting was not so much planned as simply a logical extension of work with a Chinese partner, a collaboration that was brought about by Communitech, the Waterloo Region's hub for commercialization of innovative technologies. When Tuer asked him if he would benefit from a "government as first customer" procurement policy, Liu noted that most of their work is in the private sector, where there is far less paperwork than with government grants and competitions.

Hewitt added that SSHRC provides direct support to companies like Liu's MappedIn, but needs to be able first to identify that such companies exist; conversely, he acknowledged that it would take some effort to discover exactly what SSHRC program would be best suited to any given firm. Hewitt also pointed to the vast amount of council-sponsored research into foreign markets, which can help smaller, newer firms find their way abroad.

Jackson said that Celestica has taken a very different stance, moving from being a company that was almost entirely dependent on exports to one that has begun to tap into domestic markets. This change came about through the pressures of international competition, and the realization that opportunities existed closer to home. "We weren't this typical, early-stage company with a domestic market that got us started and then we ultimately had to pursue global markets for growth," he said. "Rather, we were operating on a reverse path, not because we believe the Canadian market is going to be the next big breakout market, but it creates a relevance for a company like Celestica to continue to innovate from Canada." More specifically, he described how doing more business in Canada led to a more diversified suite of services and clientele. He also noted that the Canadian brand benefited from the outstanding example provided by entrepreneurs in the Kitchener-Waterloo region, although much of the country's image remains established as a provider of natural resources.

Liu suggested that having secured one international arrangement with China, MappedIn is actively exploring other prospects elsewhere. "International activity came early because it showed up on our doorstep," he said. "It's going to be at least another two years before we're saturated in Canada in terms of deploying our technology to market." He recalled concluding that the company had become reactionary, simply responding to queries of one sort or another, so that the priority now is to seek out new directions.

Tuer asked Hewitt to identify the kinds of SSHRC-led activities that could help companies like MappedIn establish these new directions. Hewitt gave the example of the Trans-Atlantic Platform, which is aligning with similar funding agencies in Europe, as well as the Americas. This platform generates objectives and funding opportunities that would apply to particular regions, which would allow companies to find people and other resources essential to expanding into these same regions. Nor is this a matter of "picking winners", since the work is all peer reviewed.

A question from the floor asked Liu about the role Industry Canada plays in the firm's export plans. Liu indicated that they are tapping into trade commissioners to get started in specific re-

gions. He added that they are looking at options in Brazil and the Middle East, working with contacts at Communitech. Hewitt offered his own enthusiasm for trade commissioners' offices, which also work in league with funding agencies like SSHRC. "They're getting quite savvy in their ability to assist," he said. "On the ground they do a tremendous job in many places." Tuer reiterated this point, although he noted that it can be hard to tap into the right places at Industry Canada for help.

Tuer then asked the panel if industry-academia collaboration is working. Liu was unequivocal: "We wouldn't be here if it wasn't for academia." His company's founding team met one another through the University of Waterloo's start-up incubator. They maintain links with university researchers who could help refine the company's products through R&D. Liu highlighted the challenge of knowing that the company would look very different in as little as 18 months, which makes it difficult to plan ahead.

Jackson, for his part, admitted that Celestica formerly did little work in collaboration with academia. However, that stance has changed as the company has begun to position itself as a source of innovation. It therefore obtained a funding grant through NSERC's Business-Led Networks of Centres of Excellence program, which is helping to position products in ways that ready them for the marketplace.

Hewitt agreed that the timing surrounding support from SSHRC and other agencies could make it difficult for companies to make the best use of these resources. Referring to a partnerships program that funded about 20 large projects worth a total of $75 million over five years, he pointed out that more than half of them got matching money from private sector participants. He suggested that academic timelines will always tend to be longer than people in business might prefer, but they nevertheless can make for useful collaborations.

Liu was asked if Canada is no more than a test market for larger destinations outside the country, but he insisted that his company intends to have a strong presence here, and regards its Canadian clientele as unique. That being said, he added that export is the optimal way of building up the Canadian economy, and he stated his commitment to doing just that, rather than seeing his enterprise join others that were acquired by foreign interests.

Jackson concluded that much of the way forward will depend on how well Canadian businesses adopt ICT in order to embrace innovation and open up new markets. Making this happen, however, will also depend on measures that can reduce many of the attendant risks associated with adopting ICT. Hewitt argued that SSRCH has this goal in mind with the kind of support it provides. "That's why we're growing with the work that we support at the industry-post secondary interface," he said.

Doug Barber described Celestica as a Canadian firm that is ideally positioned to be taken out of Canada, and asked if that could happen. Jackson replied that the company had been addressing

this matter by comparing and contrasting itself with iconic examples such as Nortel and RIM. “But we have no illusion that the nature of our business and the global pressures that we face make us concerned about whether we can create the relevance that we need to have locally, in order to create the jobs that we need to be sustainable,” he said. “We do still believe that the mind share, the thought leadership, and the innovation is significantly sourced in Canada. But certainly there comes a point where there are other choices that we make about where we decide to conduct and make our investments, and there needs to be an environment in Canada that can do that.”

Hewitt responded to Barber’s question by pointing to the influence of granting council support on the choices made by entrepreneurs to enter the Canadian market or remain here. He also pointed to the possibility that government supports keep smaller firms here, and provides them with incentives to remain small, rather than try to grow larger and extend themselves to the point where they might have to sell the entire operation.