Parallel Sessions

These sessions represented a new, three-part approach to interaction within the RE$EARCH Money conference. The session moderator reviewed the challenges identified on the previous day. Then participants broke up into groups to consider specific strategies to tackle those challenges.. Finally, each group reported back on their conclusions to the group as a whole.

Strand B: Investing in Natural Resources Innovation

Facilitator:

Caroline Cook, Manager, Innovation, Science Program Branch of the Canadian Forest Service, Natural Resources Canada

Panelists:

Pierre Lapointe, President & CEO, FPInnovations
Pierre Meulien, President & CEO, Genome Canada
Alison Nankivell, Vice President, Venture Capital Action Plan, BDC
Don Roberts, CEO, Nawitka Capital Advisors Ltd.

Based on the previous day's discussion, three challenges were identified as the target of solutions to be proposed in this session. Those challenges were:

— linking academic and government resources
— addressing receptor capacity within industry for new ideas
— trying to align the interests of the investment continuum with the innovation continuum

Robert Therrien of NSERC spoke on behalf of the group examining the question of linking academic and government resources. He identified an existing model for this process, whereby the federal government provided funding to FPInnovations through the Canadian Forestry Service as well as parallel funding to the academic community for work in areas that have already been identified by industry as priorities.

Pierre Meulien identified the weak participation that industry generally plays in the risky, pre-commercial R&D process and asked if there might be a way of creating incentives for firms to get involved. It was considered that the only real incentive would be the definitive de-risking of new technology through some kind of public funding. Alison Nankivell argued that there has to be some kind of trusted, independent body conducting triage on proposed innovative ventures. "Industry's not interested until it looks like it's at a certain stage," she said. "The issue is how to get some kind of government entity in that earlier phase that maybe is working as a quasi-venture fund." Therrien responded that the federal government was not in a position to begin funding pilot plants in order to establish the scale-up viability of some new idea, while Don Roberts insisted that the costs of such activity have to be broached at some point if this work is going to take place at all.

Mark Dietrich, CEO of Compute Canada, discussed the challenge of aligning interests between investment and innovation. He explained that this discussion group redefined the problem, by casting the challenge as one of bringing market insights into research circles, as opposed to getting research findings into the market. Moreover, there is not necessarily a lack of capital for this work, but instead a need to align capital to the proper opportunity. With that in mind, he described the role of business incubators and accelerators as essential to launching new ideas into a commercial context. For that to happen, however, any of those incubators and accelerators should be aligned with similar operations in other places, such as the US or Australia. Finally, seed funds led by industry representatives could validate each opportunity and facilitate the progress of deals; as with incubators and accelerators, these funds should be co-ordinated with similar funds elsewhere in the world. Above all, companies with vested interests in the outcome of this work should be the ones providing such funds as well as the representatives to manage them. In other words, by bringing industry members together to identify problems to the research community, the resulting efforts to turn the solutions to those problems into viable lines of business should lead to genuine business deals.

Nankivell described this proposal more specifically. “Specialist funds are generally global funds,” she said. “There isn’t enough qualified deal flow in Canada to justify a pulp and paper fund or a oil and gas technology fund. But having an affiliated fund that has people in Canada working with say people in pulp and paper in Finland or Korea or whatever, then you’re looking for best-in-class solutions globally and you’re also exchanging global views and presumably attracting international corporates and gaining legitimacy.”

Dietrich suggested that the form of technology development would vary from one sector to another, such as the testing of prototypes in a working mine or forest site. Roberts applauded the identification of the need for a sector-based character to these activities, but underscored an equally important need that private money as well as public money should be committed to the process. “At the end of the day we’ve got to make money on this,” he said. “We’ve got to search the globe for those fund managers who have got the expertise.”

Mike Matheson of the U15 Group of Canadian Research Universities presented the group discussion that took place on receptor capacity, which he described as a multi-faceted problem. “It’s a cultural problem, it’s a business problem, it’s an investment problem,” he said. “It’s about getting really good products into the hands of people that can use them, who can then see themselves using them, who can see the advantage of using them, and are then able to take those and deploy them.” Because of the difficulties of trying to insert such innovations into the real-time system that businesses rely upon for their survival, the group concluded that a demonstration facility of some sort is required to test new technology at or near scale, a facility at least partially paid for by the industries that stand to benefit from it. Given that such an installation would be sector specific, they estimated that for a pulp and paper example, it would cost some $120 million to establish. “One of the pieces that we found to be really important, especially for innovations that would take place at the mill level, was being able to prove to the mill managers that this could in fact drive their bottom line, improve their margins, help them meet their targets, and make their annualized bonus,” he said.

Roberts suggested that Canada has become far too good at de-risking technologies only to see them deployed elsewhere; he argued that a facility like this, which could take in technologies de-risked elsewhere but not yet deployed, could reverse this process and take these innovations to full deployment here. “From a public sector cost-benefit analysis, this would be more effective for Canada,” he said. “It’s very important that we not restrict ourselves to Canadian technologies.”

When asked to comment on which of these solutions might be feasible, Pierre Meulien declared the demonstration plant concept to be a winner, something that would draw support from the public and private sector to provide innovations with a clear value

proposition for the private sector. Pierre Lapointe agreed, especially with Roberts' suggestion that this approach would bring technologies from around the world to fruition in Canada.

Nankivell added that her own experience with investment funds demonstrated to her how readily businesses will move to be near the perceived source of support for an innovation. If Canada can turn itself into the place where innovation takes those final steps toward the market, this will become the destination for many firms with an interest in that innovation. "We don't have to be so focused on 'in Canada'," she said. "If we look realistically at most innovation, it's been created by people from other parts of the world who came to Canada. So what does it matter if it's international or Canadian? It's just a question of creating the desire and the mindset in Canada that you want best-in-class innovation happening here. And if you do that, the money will follow. There's no shortage of money, there's a shortage of good deal-flow."

Roberts reiterated his earlier enthusiasm for bringing this kind of activity to Canada and added that it will require a high degree of specialization and focus to make the country the kind of destination that Nankivell was describing. "One of the key questions for policymaker is 'where are we going to place our bets?'" he said. "If it's by sector, then tell me what specific sector we're going to use. That requires some courage, because there will be people who feel left out."