

# TIM Lecture Series

## Enhancing Competitive Position Through Innovation Beyond R&D

Sorin Cohn

*“Innovation is a renewable national and corporate resource to be developed, harvested, used, and commercialized for economic and social benefit.”*

Dr. Sorin Cohn  
President, *BD Cohn*sulting Inc.

### Overview

The third TIM lecture of 2013 was presented by Dr. Sorin Cohn, President, *BD Cohn*sulting Inc. Drawing upon data from recent studies on innovation in Canadian companies, Dr. Cohn described the current state of innovation-management practices in Canada and brought forward specific recommendations to help enhance the competitive effectiveness of Canadian firms in the global marketplace. The event was held at Carleton University in Ottawa, Canada, on April 18th, 2013.

The TIM Lecture Series is hosted by the Technology Innovation Management program ([carleton.ca/tim](http://carleton.ca/tim)) at Carleton University. The lectures provide a forum to promote the transfer of knowledge from university research to technology company executives and entrepreneurs as well as research and development personnel. Readers are encouraged to share related insights or provide feedback on the presentation or the TIM Lecture Series, including recommendations of future speakers.

### Summary

In light of Canada's poor performance in global "report cards" on innovation, Dr. Cohn argued that there is a need to "innovate innovation". The first part of the lecture focused on reviewing the processes, perspectives,

theoretical models, and frameworks used to study and manage innovation. This review provided a backdrop for understanding innovation, which Dr. Cohn defined as:

*"The process of creating value and differentiation through new or improved products or services, or new ways of pursuing the business goals and its operations, both internally to the organization and externally, within its entire environment (market)."*

Thus, the focus of the lecture was on "managing innovation beyond R&D". In particular, Dr. Cohn emphasized the need to develop a culture that supports innovation, which can have a greater impact on results than additional spending on traditional R&D.

A second important area of emphasis was on metrics to measure and manage innovation, which help a company:

- establish strategic direction and select the right innovation projects
- achieve strategic alignment
- monitor progress and guide corrective action
- optimize the allocation of resources and rewards for effectiveness and efficiency

### *Innovation issues in Canadian industry*

In the second part of the lecture, Dr. Cohn focused on innovation in Canadian industry. A key message was

## Enhancing Competitive Position Through Innovation Beyond R&D

Sorin Cohn

that, despite diverse investments in innovation and R&D, Canadian companies were not realizing great performance benefits from this investment. Although Canadian industry has traditionally received a lot of support, namely funding, to improve its foundation in science and technology, this is not the area of greatest need for Canadian companies. Rather than suffering from a "science and technology gap", Canadian industry is suffering from a "business/commerce gap", which results in a non-competitive position for Canadian companies. To close this gap, Canadian industry requires a focus on improving the business culture, customer focus, marketing and sales skills, global connectivity, and commercialization capability of Canadian companies.

According to Dr. Cohn, the following obstacles must be overcome to improve the competitive position of Canadian companies:

- a lack of will and competitive drive
- inadequate business and commerce skills
- insufficient innovation funding (i.e., not just R&D)
- a weak culture of collaboration
- ineffective management of innovation

Many companies expend great effort ensuring that their products are ready for the market, but Dr. Cohn asks, "Okay, the product is ready, but is the company ready for commercialization?" Success requires both product readiness and corporate-commercialization readiness. Moreover, commercialization should not be thought of as something that follows product development. Due to long timescales of commercialization, these activities should be undertaken early, in step with product development. Currently, Canadian companies are taking too long to commercialize, and they are taking too long perfecting their products.

Dr. Cohn also emphasized:

- the value of professional help from those with direct and local knowledge of your key markets: "You need to be *there*; think globally and act locally."
- the importance of collaboration for small and medium-sized enterprises, and the insufficient use of lead customers and anchor companies in Canada
- the inadequate levels of outside funding available for commercialization

Finally, Dr. Cohn highlighted that, although Canadian companies invest a lot of money in innovation, they do not spend a lot of time managing it. Furthermore, "the

companies that spend a lot of time on innovation – but not on managing innovation – do worse than those that don't invest in innovation! And those that do both, do *very* well." In particular, Canadian companies need to measure the performance of their innovations using relevant metrics.

### *Innovating innovation management*

In the final part of the lecture, Dr. Cohn shared "recipes" for managing business innovation:

**1. Review vision and reality:** The first ingredient for managing business innovation is for the company to re-view its vision: "Who are we? What do we want to become?" The company should also assess its competitive position along multiple dimensions to see whether the company's competitive position is aligned to its vision.

**2. Nourish a culture of innovation:** Although culture is difficult to measure and begins with leadership, a company-wide culture of innovation is essential. Innovation is about change and ambiguity about the future, which means that it is often thought to be "risky". However, the company leaders should understand that "not innovating" is the largest risk of all.

**3. Adopt appropriate strategy and key targets:** The company needs to understand why it is innovating, where it should innovate, what specifically it should innovate, and when the results are needed.

**4. Select metrics and process:** The company needs to select appropriate metrics and apply them within a consistent framework. It is not enough to just to measure, you need to understand the need to measure and focus on measuring the strategic areas of innovation, and then be prepared to react, learn, and adjust based on the resulting data.

**5. Manage the innovation process:** Taking the ingredients above, the management team must organize projects for its innovation-management activities, not as a one-off exercise, but as a continuous innovation process.

Finally, Dr. Cohn provided several recommendations to industry first and foremost, as well as to provincial governments and the federal government with its agencies supporting the innovation ecosystem.

## Enhancing Competitive Position Through Innovation Beyond R&D

Sorin Cohn

### Recommendations

- A. Industry needs to focus more intensely on competitiveness and global market penetration:
- a. Align business plan and operational implementation with mission and culture.
  - b. Target marketing and sales in advance and be prepared for intensely effective commercialization.
  - c. Collaborate to conquer: anchor companies, local market partners for support.
  - d. Go for “smart money”: integrate financial and strategic support.
- B. Provincial governments need to focus on enhancing the level of business education and the development of strong leadership and competitive skills, as well as creating a supportive provincial environment for risk capital and the commercialization of innovations developed in the province.
- C. The Federal Government needs to rebalance its innovation focus from R&D to economic values and an environment for global competitiveness:
- a. Provide coordinated programs and a comprehensive drive for a culture of commercialization success.
  - b. Develop flexible organizational structures and programs capable of being evaluated and adjusted as the reality of global markets requires.
  - c. Enhance accountability with measures for true industry/economy values.
  - d. Ensure the competitiveness of Canadian industry through effective commercialization support:
    - i. Save money from the Scientific Research and Experimental Development Tax Incentive Program (SR&ED; [tinyurl.com/bxzvg2h](http://tinyurl.com/bxzvg2h)) by eliminating waste; apply these savings to the creation of a balanced portfolio of programs aimed at enhancing competitiveness of Canadian industry.
    - ii. Consider tax-based incentives for "innovation in commercialization" and "effective collaboration" for true business success.
    - iii. Revitalize the Canadian venture capital industry.
    - iv. Provide direct commercialization-innovation support for small and medium-sized enterprises through a dedicated "commercialization preparedness assistance program" similar to the Industrial Research Assistance Program (IRAP; [tinyurl.com/bmjx7gg](http://tinyurl.com/bmjx7gg)).
    - v. Enhance IRAP for more consistent and effective support.
    - vi. Expand the Canadian Innovation Commercialization Program (CICP; [tinyurl.com/af8sslh](http://tinyurl.com/af8sslh)) for "innovation purchases" from small and medium-sized enterprises and accountable lead-customer nurturing.
    - vii. Support Canadian intellectual-property protection via SR&ED credits and IRAP support.
    - viii. Promote anchor-company relationships and clusters, possibly via SR&ED credits to anchor companies.
  - e. Link a percentage of academic research to industry via lead-customer commitments.

### Key messages

The key messages from the presentation were:

1. Innovation is a means to an end, which is value and competitive success
2. An adequate innovation strategy based on a reality-anchored vision is important.
3. Culture and entrepreneurship matter a lot.
4. Innovation management is becoming a "science".
5. Using the right innovation-management technology (i.e., methodology, tools, and metrics) is critical.
6. We operate in a complex innovation *ecosystem*.
7. It is up to all of us – industry, academia, governments, etc. – to make it better.

## Enhancing Competitive Position Through Innovation Beyond R&D

Sorin Cohn

### *Lessons learned*

In the discussions that followed each portion of the presentation, audience members shared the lessons they learned from the presentation and injected their own knowledge and experience into the conversation.

The audience also identified the following key takeaways from the presentation:

1. Innovation is paramount for competitive survival.
2. Doing more R&D does not necessarily result in more innovation.
3. Startups spend a lot of time and money conducting additional R&D, rather than devoting these resources to commercialization. This tendency should be reversed.
4. Commercialization planning and activities must start at the same time as innovation and product development; many companies start commercializing too late.
5. Canadian companies are good at producing high-quality products and services, but they are not good at commercializing them.
6. Companies should not wait until a product is perfect; they should quickly get their products into the market and then quickly learn from how the products are received.
7. We should recognize the importance of building a *culture* of innovation, both within companies and as a nation.
8. Our innovation culture should emphasize collaboration. Everyone needs to be involved, at all levels and both inside and outside of companies.
9. Many companies are not managing their innovation activities, to their detriment.
10. Many companies are not adequately measuring what they are doing in terms of innovation activities and outcomes.
11. When companies are self-assessing their innovation activities, they should involve every level in the company; the view on the front lines may not be the same as the view in the executive offices.
12. Investors understand the importance of metrics better than many companies; investors can help companies develop and apply appropriate innovation metrics.
13. There are many opportunities for companies to develop innovation-management software for companies.
14. Academic research can produce actionable recommendations for managing innovation.
15. Too many companies think that financing will solve all their problems.
16. In general, Canadian companies have a very weak customer focus.
17. Canadian companies need to devote greater effort to sales and marketing.
18. Local startup communities can benefit from large, global anchor companies.
19. Canadian companies focus too much on selling within their own province. Even a province-to-province paradigm is insufficient; Canadian companies need to "go global" or they may go out of business.
20. To go global, companies must develop partnerships, which can include local partners; companies should seek complementary partners that have global capabilities.

## Enhancing Competitive Position Through Innovation Beyond R&D

Sorin Cohn

This report was written by Chris McPhee.

### About the Speaker

**Sorin Cohn** has 35 years of international business and technology experience, having been involved in most facets of innovation development: from idea to research and lab prototype, from technology to product, and then to market success on the global stage. He has developed new technologies, created R&D laboratories, started new product lines, and initiated and managed new business units. Sorin has several essential patents in web services, wireless, and digital signal processing, as well as over 70 publications and presentations. He has also been Adjunct Professor at the University of Ottawa. He is a Killam Scholar, and he holds a PhD in Electrical Engineering, an MSc in Physics, and an MEng in Engineering Physics. Sorin is President of *BD Cohn* Consulting Inc. As well, he acts as Leader of Innovation Metrics at The Conference Board of Canada and as Chief Program Officer of i-CANADA. He is also Member of the Board of Startup Canada as well as the Board of the Centre for Energy Efficiency.

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