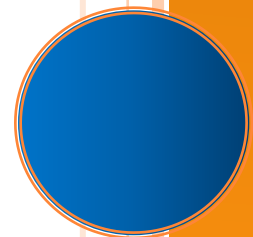




PATHS TO THE FUTURE

HOW CANADA SHOULD BE ENGAGING IN A \$9
TRILLION DOLLAR HEALTH ECONOMY VS. THE
CANADIAN INNOVATION AGENDA



Paths to the Future

Paths to the Future: How Canada Should be Engaging in a \$9 Trillion Dollar Health Economy vs. the Canadian Innovation Agenda

Background

On Tuesday June 16, 2016 the first steps began towards the development of a Canadian National Inclusive Innovation Agenda. In a joint announcement the Minister of Innovation Science and Economic Development, Minister of Science, and the Minister of Small Business and Tourism unveiled 6 action areas to build an innovative Canada. This is the first step in developing an inclusive action plan with the first phase focusing on public consultations during the summer months in conjunction with round-table discussions that will take place across the country. Central to the development of the action plan, the consultations will encourage participation from all sectors, creating an opportunity for the Health Science Industry to highlight the actionable solutions for the sector that will improve health outcomes and ultimately drive a return on investment for the Canadian economy.

OBIO successfully launched the newest report, ***“How Canada Should be Engaging in a \$9 Trillion Dollar Health Economy”*** in Toronto and embarked on a provincial advocacy campaign to promote the report, with tour stops in Kitchener-Waterloo and in the nation’s capital, Ottawa. Clear connections can be drawn between OBIO’s report recommendations and the 6 action areas that form the Federal Government’s Innovation Agenda.

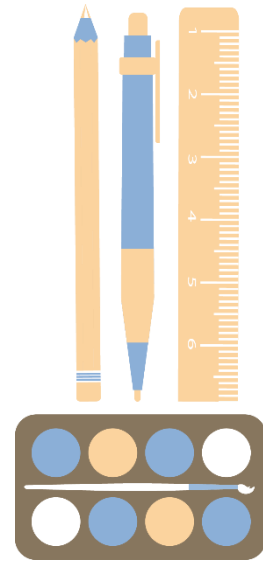
“It is encouraging to see our Federal Government willing to listen to all innovation sectors in order to develop a national strategy.”

– Gail Garland, CEO of OBIO

The 6 Action Areas Include

Promoting an Entrepreneurial and Creative Society

- “Highly skilled workers, researchers and entrepreneurs should be welcomed to Canada in higher numbers and at a faster rate than in other OECD countries, which are competing for the same talent.”
- **OBIO’s Report Recommendation:** The talent pool is seen as neither wide nor deep. While talent is less of an issue with MNEs, experienced and networked talent is seen as lacking in Canada and a number of CEOs talked about the value to an MNE of people who have worked in a number of countries, have exposure to new and different ways of thinking and doing things. SMEs reported more challenges with finding and retaining the human resources they need. Barriers that were mentioned include Canadian immigration policies, competition from jurisdictions with better financing, less risky companies, lack of incentives and security for employees to join and stay in the industry and lack of support for companies to create jobs and build an experienced workforce. The report recommends, talent attraction and retention policies or programs to eliminate barriers to immigration and provide direct funding or tax relief for companies to competitively develop experienced personnel.



Supporting Global Science Excellence

- “This area of action focuses on strengthening basic and applied research capabilities, while promoting partnerships with businesses. Strong and sustained support for world-class research is critical to Canada's innovation performance. As innovation is about people and businesses, how can we increase the demand for science, technology, engineering and math graduates?”
- **OBIO’s Report Recommendation:** Connectivity, networks and collaborations were seen as key to capitalizing on scientific expertise and skill sets. One recommendation from industry CEOs was for Canada to create an ecosystem for scientists to connect and compete with proposals for global participation. Currently the STIC report² states that within Canada the highest collaborations were in clinical medicine, biomedical research and biology. At the same time, figures presented in the section of the STIC Report² on Knowledge Transfer suggest that 24% of Canadian university researchers' publications were co-authored by at least one researcher from another sector but only 2.6% were co-authored by industry. Canada's higher education institutions were creating approximately 16 licenses per institution for every 35 created in the US and the value created by licenses from Canadian institutions was estimated at \$2.2M versus \$13.5 for US universities.



- In addition to challenges raising funding within companies and the need to address incentives for investors, there were a number of suggestions for helping companies keep and extend the funding they bring in. These included wage credits or subsidies for job creation, improvements to SR&ED and the provincial tax R&D tax credits and flow-through shares for the Health Science Industry. Many of these recommendations are being echoed by other sectors in the innovation economy; for example, clean tech has requested flow through shares. SMEs expressed a need for refundable tax credits beyond those for research, an idea supported in a report from CD Howe that noted “tax policy should be focused on creating a balanced and competitive tax environment across the entire innovation value chain, from initial R&D through commercialization to the development and production of new products and services.” One caveat however is that to raise the net benefit of R&D tax incentives, compliance and administrative costs need to be examined and if possible, reduced. The CD Howe report also describes Canada’s approach to tax incentives as overly focused on “pushing” R&D and not focused enough on “pull” incentives for companies to commercialize and develop new products and services in Canada. One suggestion is the introduction of a “patent box” that reduces the tax rate on income derived from patents that are developed and practiced in Canada. The success of “pull” incentives for commercializing health technologies would also depend on fixing the challenges associated with selling into the Canadian market.

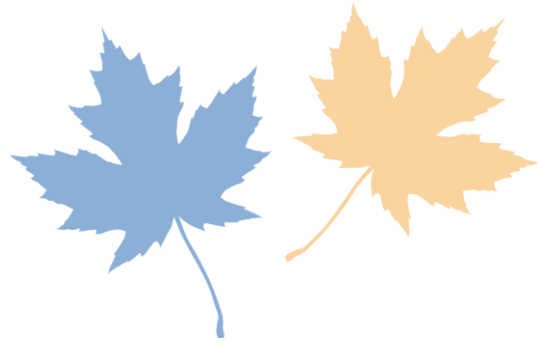
Building World-Leading Clusters and Partnerships

- “More partnerships should be fostered among businesses, research institutions and governments so that these hotbeds of innovation become magnets for global talent, investors and leading companies. These partnerships will strengthen value chains by connecting Canadian suppliers to large anchor firms, accelerating the commercialization of ideas and expanding market access.”
- **OBIO’s Report Recommendations:** As with all industries, the decision to locate or invest in a given jurisdiction is driven by the return on investment, time to generating returns, the size of the returns, cost of doing business and the future environment. Companies in the survey were divided in their emphasis on emerging markets between those focused on growth and rate of growth and those focused on stability and predictability. All respondents agreed that the most important factors that affect return on investment are intellectual property (IP), regulations, pricing and market adoption and dissemination of new products. Many commented that pricing is experiencing huge pressure for change and the US model is unlikely to be sustained. In the face of increasing price controls other factors and potential trade-offs, such as time to market and IP protection, become more important in the overall ROI equation for attracting investment.
- Factors such as science and clinical trial infrastructure were mentioned less frequently and the point was often made that quality is now available in many jurisdictions, the education of local workforces is becoming more of a level playing field and the key R&D investment differentiators are cost, timeliness and the availability of technologies to speed up innovation and development such as EMRs and patient databases. When it comes to investing in R&D, a number of leaders mentioned the ease of working with the local universities and hospitals as a factor influencing investment decisions.



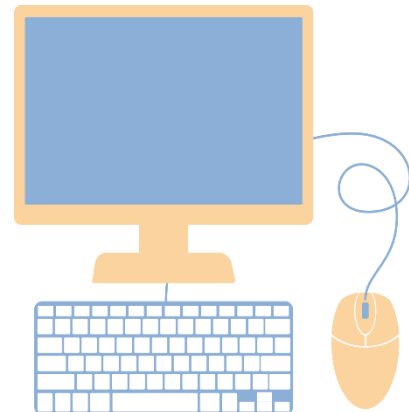
Growing Companies and Accelerating Clean Growth

- “This area of action focuses on supporting the start-up and scale-up of small and medium-sized businesses. Too often, firms that are established in Canada see their growth path diverted as ideas and talent move to other countries. The Canadian pathway to success depends on the capacity of these companies to export to multiple markets. It also depends on their access to patient financing and ability to attract top talent. How can Canada better support the scale-up of innovative companies into the next generation of billion-dollar global players?”
- **OBIO’s Report Recommendation:** Build an environment for industry to thrive, through market access policies, targeted at growing, attracting, and ultimately retaining globally competitive companies who will provide innovative products and solutions for the Canadian health system. Further, the commercialization of health technology is an opportunity to diversify Canada’s economy, create quality jobs and to ensure our highly educated workforce can stay here and build a future. The report recommends: Incentivize technology exports without penalizing companies that have sales in foreign markets but no significant revenues in Canada.



Competing in a Digital World

- “This area of action focuses on maximizing the benefits of current and emerging digital technologies. Canada needs to capitalize on these technologies to give businesses, research institutions and cities a competitive edge. What’s the future of digital infrastructure? Do we need to transition Canada there faster? Who are the partners?”
- **OBIO’s Report Recommendation:** Policies to build the environment and enable market access should include; technology infrastructure policies, that will ensure that Canada is equipped with the required electronic medical records and databases that industry requires for big data analytics.



Improving Ease of Doing Business

- The ability of nations to commercialize ideas, attract investment and serve as a test bed for new unproven technologies is underpinned by a regulatory framework that is credible, reliable and forward-looking. One important area of action focuses on ensuring that Canadian laws, regulations and standards keep pace with rapid change, while protecting consumers. The goal is to ensure that the market is favourable to the adoption of new technologies. Government has a role in promoting innovation as well as a business environment that supports commercialization and the freedom to compete in a global economy. All levels of government must work together to lower barriers to allow Canadian businesses to prosper at home and abroad.



- **OBIO's Report Recommendations:** Leaders of both local Ontario companies and multinational corporations offered views on the major issues facing the Canadian Health Science Industry acting as barriers to growth, investment and economic success. As in the past the number one issue for local companies continues to be capital access and the number one issue for multinationals continues to be how to predict and derive a return on investment within the Canadian market. For the first time, however, commonalities are emerging between the two parts of the industry as SMEs list market access and selling into the Canadian market as a major issue. Time delays, multiple layers, inconsistencies and conflicting decisions characterized comments on regulatory, procurement, reimbursement and tax processes.
- What is needed is value based pricing and procurement policies that put a value on innovation, with shared risks and benefits for all stakeholders. There is currently no clear, affordable path to adoption by Ontario or other Canadian healthcare systems. In contrast, many technologies have been approved for adoption and reimbursement in other globally competitive countries. A system for procurement of innovative products would allow domestic companies to provide health care solutions to their own home markets.

The timing of the announcement works well as OBIO's report continues to receive momentum while travelling across the Province bringing awareness to the Health Science Sector. "Launching our report, provides an opportunity to highlight the importance of the Health Sciences Industry in Canada. Global jurisdictions are unlocking the economic potential of strong health technology industries and now is the time for Canada's economy to benefit from the return on investment." said Gail Garland, CEO of OBIO. "It is encouraging to see our Federal Government willing

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– Gail Garland, CEO of OBIO

to listen to all innovation sectors in order to develop a national strategy. The dedication to modernize immigration policies to enable talent to come to Canada in a reasonable amount of time and the commitment to move away from start-ups to scale up, in particular reforming procurement policies, will encourage companies to stay and grow here. I would encourage all stakeholders to participate either online or in person at one of the upcoming roundtables and be heard, OBIO looks forward to contributing to the Innovation Agenda."

Visit www.OBIO.ca to download OBIO's full report: *How Canada Should be Engaging in a \$9 Trillion Dollar Health Economy*

Sincerely,

A handwritten signature in black ink that reads "Gail Garland". The signature is fluid and cursive, with the first name "Gail" and last name "Garland" clearly distinguishable.

Gail Garland
President and CEO
Ontario Bioscience Innovation Organization



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