

The Value of the Medical Technology Industry within a Federal Innovation Strategy

MEDEC Submission to Hon. Navdeep Bains, Minister of Innovation, Science and Economic Development

THEME: WORLD LEADING CLUSTERS AND PARTNERSHIPS

The Medical Technology in Canada – The Current State

The medical technology sector in Canada should be one of this country's greatest assets, which is currently recognized worldwide for innovation in medical technology – devices and processes – that collectively and continuously deliver value within medical systems; improved efficiencies, improved patient management and improved patient outcomes. Ironically, and unfortunately, Canada is not capitalizing on this asset, to the detriment of patient health care outcomes and lost opportunities within the Canadian economy.

The medical technology industry creates jobs, drives growth, and most certainly improves the lives of Canadians.

The medical technology industry is a win-win investment for Canada. Our members create technologies that save patients' lives, improve the quality of patient outcomes, reduce costs in the health care system and create thousands of high paying jobs.

Value to the Economy

It is estimated that the global market for medical devices could reach US\$440 billion by 2018.¹ The medical technology industry presents a substantial opportunity for the future of Canada's economy.

Canada's medical devices sector encompasses about 1,500 firms, employing 35,000 people, and exported over \$1.9 billion worth of medical devices in 2013. Demographic trends, developments in science and engineering and changes in care delivery will contribute to the sector's future growth. Canada's medical devices sector is highly diversified, R&D intensive, technology-based and export-oriented; purchasers include hospitals, physician's offices, laboratories, clinics and patients and firms spend, on average, 12 percent of yearly revenues on development, design and commercialization.²

As we move towards a more innovative, knowledge-based economy, there is no better sector to focus our efforts in than the medical technology industry in Canada, especially given the global reach and nature of the industry.

¹ P.4, *The Catalyst: Towards an Ontario Health Innovation Strategy*: A report from the Ontario Health Innovation Council to the Government of Ontario, December 2015, www.ohic.ca

² P.2, *Invest In Canada: Medical Devices – Canada's Competitive Advantages*, www.investincanada.com

Value to the Health Care System

Very substantial, evidence based improvements have already been achieved within the health system where some advancing surgical technologies have reduced surgical times, bed days, time to recovery and improved patient outcomes, while others have completely shifted surgical procedures from invasive in-patient to minimally out-patient procedures. Innovative medical technologies are delivering more accurate and faster results, leading to timelier diagnosis, improved decision-making, quicker time to treatment and improvements in patient outcomes.

Adopting innovative medical technologies should be seen an investment strategy that will contribute to a more cost effective and cost efficient health care system, while leading to improved health outcomes.

Health Innovation and Medical Technology – A National Movement

Many provinces as well as the federal government have been taking a closer look at how we can better capitalize on health innovation and the medical technology industry in Canada. If you look across the country, you can see many examples of this work.

MEDEC is very proud to have been an integral part of developing many of these initiatives. Our goal is to work with governments across the country – and at the federal level – for the betterment of patients, the health care system and the economy in Canada.

However to date, this has been a fragmented approach. A National Strategy is required to elevate the success of these initiatives and to ensure they benefit all Canadians across the country.

**see Appendix #1 – Provincial Health Innovation Initiatives*

Conclusion

Our federal government has taken a leading role in working towards making Canada a global innovation leader. Your vision and commitment to achieve this goal will serve Canadians well for decades to come. MEDEC is proud to support the work of Hon. Navdeep Bains and the Federal Government.

MEDEC members are committed to providing safe and innovative medical technologies that enhance the quality of patient care, improve patient access to health care, and help enable the sustainability of our publicly funded health care system. It is important to MEDEC members that patients and health care providers have confidence our health care system and have access to the best technologies to enable a high standard of patient care in our country.

MEDEC members also understand the valuable contribution that our sector can make to grow the economy in Canada. Our member companies employ well over 35,000 Canadians in communities across the country with expertise across multiple disciplines, including manufacturing, sales and marketing, biomedical engineering, biological science, regulatory, professional services and health economics.

Please find below our recommendations which we are confident will align with the Federal Innovation Agenda, and will enable the success of the medical technology industry in Canada – for the benefit of all Canadians.

MEDEC Recommendations

The Need for a National Health Innovation Strategy

The federal government has an opportunity to take a leading role in developing and implementing a National Health Innovation Strategy in Canada. As a large public payer health care system, Canada has the opportunity to use its health care spend to strategically attract global attention and growth of the medical technology industry in Canada.

***MEDEC Recommendation #1**

The federal government should work with medical technology industry and other health innovation stakeholders – and across government Ministries as well (Health Canada, Innovation, Science & Economic Development, Finance and other relevant government ministries) to advance the adoption of innovations and grow the medical technology industry in Canada, by forming a permanent cross-ministerial and stakeholder collaborative roundtable/advisory group. The optimal way to facilitate this recommendation would be the creation of a Federal Health Innovation Office led by a Chief Innovation Officer.

MEDEC believes that Canada would benefit from a federally guided national medical technology and health innovation strategy. This strategy would support long-term health system goals across the country. Success, however, can only be achieved if we all work together towards the same goals.

Government cannot solve these issues by themselves. They need the minds, resources and goodwill of all of the stakeholders involved. We need to work together and engage in permanent, ongoing dialogue if we want to be successful.

MEDEC Recommendation #2

The federal government should establish a health focused “Innovation Accord” with the provincial governments, which would serve to support and invest in ongoing provincial health innovation initiatives – such as those detailed in this submission – and align these investments with the upcoming Health Accord to maximize success.

Provincial governments across the country are leading the way in strategies and investments in health innovation and in the medical technology industry. With responsibility for the delivery of health care in Canada, many provinces have a thorough understanding of the challenges around the commercialization and adoption of medical technologies.

With negotiations for the Health Accord underway, the federal government has a big opportunity to align health investments with economic development objectives and give provinces the resources they need to invest in innovation medical technologies, while driving growth and the economic development of the industry at the same time.

MEDEC Recommendation #3

The federal government should invest in all aspects of the medical technology/health innovation ecosystem which includes small and medium Canadian based companies (SMEs), as well as multi-national enterprises operating in Canada (MNEs).

Most federal R&D and innovation incentive programs are highly focused on supporting SMEs, startups, and not-for-profits. We must consider, as well, that MNEs can substantially contribute to the Canadian economy – not just from a jobs perspective but also in terms of skills development of Canadian workers.

SMEs have their own unique needs that we need to acknowledge and support. With startups, provincial and federal governments offer great support to them in early stages, but once a new product is ready for adoption into the system nothing exists to ensure success at that step.

Any innovation strategy that focused on the medical technology industry or the health innovation sector must include a comprehensive plan to support both SMEs and MNEs in Canada.

*MEDEC Recommendation #4

The federal government should develop a commercialization framework and adoption of medical technologies & health innovations strategy in Canada.

All too often, great health care related research in Canada leads to the development of innovative health care products that are not utilized first, or sometimes at all, by Canadians. The time has come for better long-term planning to increase adoption and access to medical technologies in Canada.

The timely adoption of medical innovation and technology is essential to enhancing patient care, improving patient access to health care, and enabling health care system sustainability in Canada.

*MEDEC Recommendation #5

Through Health Canada, work with other jurisdictions to harmonize and streamline regulatory processes and requirements in an effort to recognize the global nature of the medical technology industry and minimize duplication of efforts for the medical technology industry between Canada and other countries.

Health Canada can play a large role in working with the Ministry of Science, Innovation and Economic Development to successfully grow our sector, while improving health outcomes and health care system sustainability at the same time.

The longer it takes for a medical technology to be licensed in Canada, the longer patients and clinicians must wait to access technologies. Duplication of efforts between different countries can make the licensing process overly-burdensome. Other jurisdictions that are similar to Canada, e.g., Australia, are revising their regulatory process by adding a regulatory pathway that incorporates the recognition of approvals by other trusted regulators.

*MEDEC Recommendation #6

Through Health Canada, work to improve tracking and transparency in regards to the time it takes to get a medical technology licensed in Canada. Allocate additional resources to the Health Canada Medical Devices Bureau should it be necessary to achieve this goal.

Some technology categories experience significant delays in the licensing process. The delays act as a disincentive for launching innovative medical technologies in Canada, and also delay access to technologies for patients and clinicians.

More transparent tracking of approval times will lead to better data to figure out how the regulatory licensing process can be improved. Slow approval of medical technologies act as a disincentive for companies to invest in Research & Development in Canada given that in order to export technologies that were developed in Canada, many countries require licensing approval in a company's home country first. Some even require licensing approval in a company's home country if the technology is manufactured there. The current performance of the Medical Devices Bureau has been in Q1 and Q2 of FY 2016/17 for a number of Cost Recovery fee lines in 'penalty mode' (more than 10% below agreed upon service standard) and in backlog. The Therapeutic Products Directorate, Medical Devices Bureau and MEDEC agree that this performance shortfall is caused by lack of capacity/resources.

Included in this should be additional support and resources for SMEs to be able to navigate the regulatory process in Canada.

NOTE: *The above noted recommendations (#1, 4, 5, & 6) echo the recommendations of the Federal Health Innovation Advisory Panel. Significant time, energy and resources were invested in the work of the Federal Health Innovation Advisory Panel and its report – more commonly known as the Naylor Report. We should capitalize on the expertise of the panel and implement the following recommendations from the report as we know these recommendations will help foster a vibrant medical technology industry in Canada.

Appendix #1 – Provincial Health Innovation Initiatives

ONTARIO

On December 19, 2014, the Ontario Health Innovation Council (OHIC) released their report providing transformative recommendations to the Ontario government that have the potential to greatly improve Ontarians' health outcomes and reduce healthcare costs through the increased adoption of innovative medical technologies into the healthcare system. The Council was created by the Wynne government in November 2013 to provide recommendations to “accelerate the adoption of new technologies in (Ontario’s) health care system and support the growth and competitiveness of Ontario’s health technology sector”.

The report recommended that the government:

1. Establish a dedicated office to lead and coordinate innovation efforts
2. Broker relationships among industry, research, and health sector stakeholders to accelerate commercialization of innovations
3. Invest in made-in-Ontario technologies
4. Shift to strategic, value-based procurement of innovation
5. Create incentives and remove barriers to innovation across the health system
6. Continually improve pathways to adoption and diffusion of innovative health technologies

In the Ontario budget in the spring of 2015, the government announced they would be adopting and implementing all of OHIC’s recommendations. An Ontario Chief Health Innovation Strategist was hired (Bill Charnetski) on September 21, 2015 and the implementation of the rest of the recommendations is ongoing via the Ontario Health Innovation Office.

QUEBEC

The government has created as part of the 2015 budget a *Life Sciences Working Group*, including Health and Economy ministries, with the mandate to make recommendations for measures to renew support of the sector. A sub-group tasked to work on *Innovation Integration* made 3 proposals on:

1. Create an *Innovation Bureau* at MSSS, with a similar mandate as OHIC
2. Implement a “fast track/field based” health technology assessment process (POETIS, standing for Optimized Evaluation Process for Innovative Health Technologies)
3. To allow “solutions/outcomes based” RFPs

It is expected that a decision to accept the recommendations will be made in the fall of this year.

BRITISH COLUMBIA

In 2013, the city of Surrey, British Columbia, began to establish “Innovation Boulevard”. Innovation Boulevard is now an agile partnership of health, business, higher education and government, creating new health technologies to improve peoples' lives. The focus is on **3 technology areas**: medical devices, independent living and digital health.

Their shared vision is to achieve remarkable **results in 4 areas**:

1. Improve health outcomes
2. Implement intelligent solutions for the health care system
3. Attract talented clinicians and researchers
4. Grow companies in health care technology and services sectors

ALBERTA

Alberta Innovates – Health Solutions

On January 1, 2010 the province of Alberta created Alberta Innovates – Health Solutions (AIHS) which is the province's leading health research and innovation organization. AIHS funds top quality, internationally competitive health research and innovation activities to improve the health and wellbeing of Albertans. They provide leadership for Alberta's health research and innovation enterprise by directing, coordinating, reviewing, funding and supporting research and innovation.

Alberta Innovates – Health Solutions was established as part of the Alberta Innovates system by the Alberta Research and Innovation Act (2009) by the government of Alberta. It is an agency of the Government of Alberta receiving a yearly allocation from the Ministry of Health and reporting through the ministry to the people of Alberta.

In 2012, the government of Alberta created the Strategic Clinical Networks (SCN's). To get the most out of our health care system, the SCN's are networks of people who are passionate and knowledgeable about specific areas of health, challenging them to find new and innovative ways of delivering care that will provide better quality, better outcomes and better value for every Albertan.

The SCN's support the adoption of innovative medical technologies through:

- Engines to transform the health system into a highly performing integrated patient centered ecosystem
- Engines of innovation
- Engines of Health Technology Assessment/Reassessment
- Engines to cultivate research of relevance that will improve the health and wellness of Albertans
- Engines of quality and its measurement

TEC Edmonton

TEC Edmonton, one of the leading incubators of innovative companies in the health field, launched a Health Accelerator initiative to assist a minimum of 50 new health-care company clients over the next five years, aiming to broker a minimum 12 major financing or partnership deals for those clients. The TEC Health Accelerator is funded by federal, provincial and municipal funding sources and through corporate, finance and other strategic partnerships. This funding is part of a determined effort to commercialize innovative technology and products from Canada's research institutions and entrepreneurs.

MANITOBA

Manitoba Technology Accelerator

The Manitoba Technology Accelerator (MTA) is a not-for-profit business accelerator located in Winnipeg's Innovation Alley district. MTA provides commercialization support to help promising technology start-ups go from "good idea" to "investable business".

MTA adds value to their clients in three categories:

- 1) Facilities and Infrastructure
- 2) Mentoring and active participation
- 3) Finance and Investment opportunities

Mission

To accelerate science and technology commercialization.

SASKATCHEWAN

Innovation Saskatchewan

Located at Innovation Place in Saskatoon, Innovation Saskatchewan is the central agency of the Government of Saskatchewan with responsibility for implementing Saskatchewan's innovation priorities. One of the focus areas for Innovation Saskatchewan is the Life Sciences Sector.

Their mandate is to develop policies and programs and conduct activities that assist in the implementation of the innovation priorities of the Government of Saskatchewan.

NOVA SCOTIA

The government of Nova Scotia is currently working with its partners to develop a Nova Scotia Health Innovation Strategy. This strategy will focus on health care delivery innovations that reduce growth in health care spending, leverage opportunities for economic growth and improve health services for Nova Scotians.

NOVA SCOTIA/NEW BRUNSWICK/NEWFOUNDLAND & LABRADOR/PRINCE EDWARD ISLAND

The Atlantic Provinces have begun discussions on how the four provinces can work together to improve health care, outcomes and access. Through an Atlantic Health Minister Forum, the four governments are looking for ways to collaborate on health innovation initiatives such as strategic procurement and utilizing innovative ways to improve rural health care.

NATIONAL/FEDERAL

On June 24, 2014, the Government of Canada launched the Federal Advisory Panel on Healthcare Innovation. Members of the Panel included:

- David Naylor (Chair)
- Francine Girard (Deputy Chair)
- Jack Mintz
- Neil Fraser
- Toby Jenkins
- Christine Power
- Cy Frank (passed away March 2015)

The mandate of the panel was to identify the five most promising areas of innovation in Canada and internationally that have the potential to sustainably reduce growth in health spending, while leading improvements in the quality and accessibility of care. The Panel was also asked to recommend ways the federal government could support innovation in those five areas.

The Panel identified five broad areas where federal action was important to promote innovation and enhance both the quality and sustainability of Canadian healthcare:

- Patient engagement and empowerment
- Health systems integration with workforce modernization
- Technological transformation via digital health and precision medicine
- Better value from procurement, reimbursement and regulation
- Industry as an economic driver and innovation catalyst

On July 17, 2015 the Panel released its report. It was well received with health and other stakeholders across the country. There is a great deal of synergies with this report and with the current Federal Innovation Agenda initiative. The time is right to look at the implementation of some of the recommendations of the report.