

**Foresight Cleantech Accelerator's
Effective Use of Government Funding Initiative
Submission to the 2019 Pre-Budget Consultations**

Pre-budget submission to the House of Commons Standing Committee on Finance
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About Foresight Cleantech Accelerator

As Western Canada's largest clean technology (Cleantech) accelerator, Foresight's mandate is to support the development and commercialization of clean technology across Western Canada. Once entrepreneurs develop a viable technology, innovators are faced with a whole new set of challenges. They move out of the research stage and into commercialization. This stage requires the business to bring in a brand new set of skills to attract customers, deliver products, and scale operations to meet market demand.

Through our new Foresight Growth program we provide entrepreneurs with the expertise, funding and access to experts that they require to scale operations, obtain customer orders, and commercialize technology, creating jobs and economic growth across Western Canada.

Executive Summary

In 2018 Canada had a record-breaking 13 businesses on the prestigious Global Cleantech 100 list. Innovation in Cleantech not only provides jobs and drives strong economic growth in Canada, it addresses some of the biggest challenges facing Canadians and the world. technologies.

Yet, despite this growth and increased government funding, Canada is losing ground on the world stage. Many Canadian Cleantech innovators become trapped in the research and development cycle, failing to access the capital necessary to scale operations and commercialize technology. It is critical that the millions of dollars of funding provided to these companies create returns for Canada in the form of jobs and economic growth.

Foresight seeks to provide budget recommendations to the Committee to address the gap between availability of government funding and ability of Canadian innovators to access sufficient capital to successfully commercialize their technology.

Overall, we believe that closing this gap can result in better returns for Canadians by ensuring that Cleantech companies have the information and resources to get the funding necessary to attract and deliver products to customers around the globe. More specifically, these recommendations include:

- 1. Support development of skills and knowledge required to successfully obtain funding**
- 2. Provide financial support for development of a program to help Cleantech access federal funding**
- 3. Allocate human resources, including experts, program managers, and others to assist in the development and delivery of a program to help Cleantech access federal funding**

Identifying the Gap

Global Market for Clean Innovation

Cleantech companies tackle global problems, seeking solutions to provide cleaner air and water, reduce waste, and create more sustainable technologies. Cleantech encompasses a wide variety of technologies, including advanced manufacturing, robotics, artificial intelligence, advanced materials, and transformative

Cleantech is the fastest growing industry in the world. As companies and governments increasingly seeking technologies to provide cleaner, more efficient ways to deliver goods and services, the growth of the global market for Cleantech is accelerating from \$1 trillion dollars¹ in 2018 to an estimated \$2.2 trillion industry by 2022².

Impact on Canadian Economy

Canada has more than 850 Cleantech companies³, employing over 55,000 people and generating revenues in excess of \$13 billion in 2015. In 2014, Canadian Cleantech invested \$1.2 billion in research and development (R&D), surpassing the Canadian aerospace industry for R&D share of revenues. More than half of the revenues, \$6.6 billion or 57%, were from exports.

Although Canadian companies are well positioned to lead the way, they have been losing ground with share of the global market falling 12% in 2018⁴. Canada's clean technology sector, once pegged as a growth industry with the potential to be worth \$50 billion by the year 2022, is bleeding money and falling behind international competition. Now anticipated revenues by 2022 are expected to be closer to \$18 billion.

Canadian companies do very well on research and development but are struggling to get the money to physically produce the products for sale. That makes those companies ripe for foreign takeover⁵.

The Cleantech Funding Challenge

Due to the large scale of Cleantech projects in conjunction with the need for high capital expenditures, it is very difficult for Cleantech companies to get the capital they need to commercialize their technology. Millions of dollars of research sit on the shelves while global competitors pass them by. The situation was recently summarized by the CanadaCleantech Alliance, as follows:

CanadaCleantech Alliance on Clean Technology Financing Challenges:

"Deployment of cleantech solutions is often capital-intensive, requiring large sums of project debt to achieve even a single deployment. Canadian commercial banks and other lenders are risk averse and unwilling to finance these industrial-scale projects because the technology has yet to be fully commercially proven (i.e., pre-profit stage). This inability to take on technology risk for major capital projects is a significant barrier to commercialization and a competitive disadvantage for Canadian cleantech companies."

Canadian Cleantech companies have the right solutions, now they need the funding to compete and win in this rapidly expanding global market.

Canadian Government Commitment

¹ 2017 Canadian Clean Technology Report, Analytica Advisors

² Smart Prosperity Institute Report, 2018

³ 2017 Canadian Clean Technology Report, Analytica Advisors

⁴ Globe 2018 Trade Commissioner Report

Budget 2017?

⁵ 2017 Canadian Clean Technology Report, Analytica Advisors

Recognizing this funding gap, government has committed billions of dollars to grow Canadian Cleantech, announcing over \$3 billion in funding over the past 3 years. In the 2017 budget, the Canadian government noted that commercialization is a critical issue, resulting in a loss of Canadian competitiveness, and a slowing of Cleantech industry and job growth.

Government funds are typically available through a variety of programs and initiatives. While this benefits Canadians by diversifying economic growth, “*the vast array of innovation programs makes it difficult for business to find and secure the support they need*”⁶ (2017 Canadian federal budget). It can be bewildering and difficult to navigate through the programs and understand how to qualify, when to apply and the best mix of funding.

The Cleantech Commercialization Funding Gap

To create a viable business, innovators need funds to support research and development, create a market-ready product, and hire the necessary teams to scale up to commercialization. Despite a variety of financial resources available through government, early stage clean technology companies lack the expertise and knowledge of government programs to navigate their way through the funding process, slowing growth that leads to a loss of competitive advantage as better funded competitors get to market faster.

Recommended Actions

1. Support development of skills and knowledge required to successfully obtain funding

The Canadian government has shown significant commitment to commercialization of Cleantech technology with initiatives such as the Industrial, Clean and Energy (ICE) Venture Fund administered through BDC.

Despite the availability of these funds, Cleantech companies continue to struggle to obtain the funding needed to commercialize technology. This is due to a lack of knowledge as to types of funding available, lack of experience as to how to obtain funding, and not being eligible for appropriate funding.

Recommendation: Foresight recommends a commitment to streamline access to capital and to support programs that combine information and support for obtaining appropriate federal funding.

2. Provide financial support for development of a program to help Cleantech access federal funding

As Western Canada’s largest Cleantech accelerator, Foresight has identified a need for a program to specifically assist Cleantech companies seeking funding. While there are various sources of information about government grants and tax credits, as well as numerous programs and experts providing advice and assistance on how to apply, there is no central, turnkey solution that organizations such as Foresight can deploy to help Cleantech companies apply for and

⁶ 2017 Canadian federal budget

receive funding. Furthermore, there is no way to assess the effectiveness of these programs or to use them to understand where the gaps are in current education and assistance.

Recommendation: Foresight recommends a designation of financial resources to developing a comprehensive program that provides financial skills development, information and guidance on government funding options, mentoring and advice throughout the application process, and tracking and reporting back to government on the success, challenges, and issues faced in a structured application process.

Program Components

1. Financial Needs Analysis
 2. Government Funding Sources
 3. Matching Government Funding to Company Needs
 4. How to Find the Right Program
 5. Funding Readiness
 6. Application Preparation and Submission
 7. Success Monitoring and Reporting
- 3. Allocate human resources, including experts, program managers, and others to assist in the development and delivery of a program to help Cleantech access federal funding**

As with any financing process, accessing government funds is a highly complex process. Each program and funding type has different objectives, qualification requirements, and targets. As a result, it is important to have experts who are familiar with the process provide critical information and insights to innovators as to how to most effectively and efficiently allocate capital.

Recommendation: Foresight recommends that human resources are made available to provide the information, guidance and advice necessary to successfully qualify, select, and monitor the success rates of capital funding requests. This includes experts and program managers who can provide information on funding alternatives, how to successfully navigate the due diligence process, key terms and conditions (including reporting requirements), and other critical information needed to successfully access federal funding.

Conclusion

Foresight wishes to express our appreciation for this opportunity to participate in the 2018 pre-budget consultation process and to raise awareness of the gap between availability of and access to capital for Cleantech innovators. We sincerely hope these comments are useful to the Select Standing Committee in shaping a Cleantech sector that is a world leader in sustainability, driving economic and growth throughout Canada for decades to come. Finally, we acknowledge the support of experts and advisors from public and private sector who work with us to strengthen our collective commitment to fostering innovation and shared goals for economic prosperity and sustainability.