



# DEVELOPING A COLLABORATIVE APPROACH TO EXPORTING TO CHINA

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Federal-Provincial-Territorial  
Assistant Deputy Ministers Meeting  
Summary Report

October 12th , Vancouver  
2017



ASIA PACIFIC  
FOUNDATION  
OF CANADA

FONDATION  
ASIE PACIFIQUE  
DU CANADA

# SUMMARY REPORT

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**DEVELOPING A COLLABORATIVE APPROACH TO EXPORTING TO CHINA** took place on October 12, 2017, organized in collaboration between Innovation, Science, and Economic Development Canada and the Asia Pacific Foundation of Canada. The purpose of the meeting was to consult relevant stakeholders to identify common challenges that the companies in the Canadian clean technology (cleantech) sector have faced in their attempt to expand their businesses to China, and the best ways in which the government can help address these.

Thirty-five stakeholders from federal and provincial governments, industry, and research organizations participated in this discussion (see Appendix I for the full list of participants). During the sessions, participants discussed the opportunities – and challenges – presented by the Chinese market; their personal experiences working in China; and ways in which the challenges could be addressed (see Appendix II for a detailed agenda of the meeting).

This report summarizes the points discussed at the meeting in three parts. It starts by setting the context of the opportunities and challenges that the Chinese market present to Canadian cleantech companies. Then, it provides updates on government initiatives currently underway. Lastly, it presents a series of recommendations that emerged from the meeting.

## **THE “CHINA OPPORTUNITY” AND “CHINA CHALLENGES” FOR CANADIAN CLEANTECH**

The Chinese cleantech market is one of the biggest and fastest-growing markets in the world. China faces several – and severe – environmental challenges following its rapid economic and social modernization. Its unprecedented economic growth has been accompanied by rapid urbanization and increased environmental pollution. The Chinese government faces a conundrum in that it must continue leading economic growth, upon which its legitimacy rests, while addressing environmental challenges that have attracted criticism to the leadership both domestically and abroad. In this, the Chinese leadership has identified cleantech as a key to address these challenges all together.



China's latest Five-Year Plan reflects the government's emphasis on cleantech in its policies, highlighting its intent to pursue a "dramatic energy revolution" that would increase the share of non-fossil-based energy to 15 per cent of its total energy production, reduce water consumption by 23 per cent, and restore 90 per cent of contaminated industrial and farm lands by 2020.<sup>1</sup> The government also committed to increasing its research and development funding to 2.5 per cent of the annual GDP by 2020, and pledged to make doing business in China easier for foreign companies and investors.<sup>2</sup>

As a result, China has become one of the largest, and fastest growing cleantech markets in the world. Today, it represents 21 per cent of the global cleantech market share.<sup>3</sup> According to a 2017 report by Canadian innovation hub MaRS, China's overall investment in cleantech has risen by over 1,600 per cent since the first quarter of 2016.<sup>4</sup> The annual report of Cleantech Group, a global cleantech consulting firm, also highlighted the influx of Chinese money into cleantech markets around the world as a notable part of the trend in 2016.<sup>5</sup> The Chinese cleantech market is expected to grow even more with Beijing's aggressive policy agenda vis-à-vis cleantech initiatives and the environment.

<sup>1</sup> Analytica Advisors, *Synopsis: 2017 Canadian Clean Technology Industry Report*. Publication (Ottawa: Analytica Advisors, 2017).

<sup>2</sup> Jason Moody, *Entering China's Emerging Cleantech Markets: An opportunity for Ontario startups*. Publication (Toronto: MaRS Discovery District, 2017).

<sup>3</sup> Analytica, *2017 Canadian Clean Technology Industry Report*.

<sup>4</sup> Moody, *Entering China's Emerging Cleantech Markets*.

<sup>5</sup> Cleantech Group, *2017 Global Cleantech 100 Report*. Publication (San Francisco: Cleantech Group, 2017)

On paper, the Canadian cleantech sector has a strong foundation to seize the opportunities that the growing Chinese market presents. First, it has a strong cleantech sector worth C\$13.27B with approximately 850 companies and 55,200 direct employees; these companies are high up in the global supply chain, which focuses on developing and delivering solutions based on intellectual property and know-how.<sup>6</sup> The 2017 Global Cleantech Innovation Index ranked Canada fourth, noting the strength of its emerging cleantech sector (second overall) and abundance of cleantech funds (first for amount of funding available), which again underscores the strength of the sector in Canada. Further, the Government of Canada has enjoyed strong bilateral relations with China. In February 2016, Prime Minister Justin Trudeau and Premier Li Keqiang signed the Joint Declaration on Canada-China Clean Technology Cooperation, which signalled further intent to closely collaborate in this area, starting at the government-to-government level.

Further, the public opinion seems to support more Canadian involvement in the Chinese cleantech market. According to 2017 National Opinion Poll on Canadian Views on Engagement with China, 68 per cent of Canadians feel confident that China will become a global leader on economic issues and 76 per cent view strengthened engagement with China as an opportunity for Canadian business. Ultimately, 55 per cent of Canadians show support for a FTA with China, a 9-point increase from 2016, and 57 per cent believe that this would bring greater economic prosperity to Canada. While many also express concerns about China's economic volatility (71 per cent) and political pressure from the Chinese government (64 per cent), the poll results suggest that increased involvement in the Chinese cleantech sector would generally be supported by Canadians, who regard collaboration on "measures to address pollution and protect the environment" as a top priority (27 per cent).<sup>8</sup> As such, further collaboration with China on cleantech seems to be an initiative the Canadian public would support.

However, Canada's cleantech sector has been struggling in securing its place abroad, and especially in China. The latest report on the sector by Analytica Advisors notes that Canada's market share of world cleantech goods declined by 12 per cent between 2008 and 2015, ranking 16th out of the 25 top exporters.<sup>7</sup>

While there is a consensus in the industry that China stands as an important market, many companies are reluctant to enter, or have struggled with China's unique market landscape that tests newcomers with a wide range of problems. Companies have mentioned the following as challenges to their operation in China:

<sup>6</sup> Analytica, *2017 Canadian Clean Technology Industry Report*.

<sup>7</sup> Ibid.

<sup>8</sup> Asia Pacific Foundation of Canada, *2017 National Opinion Poll: Canadian Views on Engagement with China*. Report (Vancouver: Asia Pacific Foundation of Canada, 2017).

- An uncertain policy environment that has major influence on the private sector;
- The need for heavy reliance on local connections ("guanxi" culture);
- Concerns about potential violation of intellectual property rights; and
- The existence of strong international competitors.

### GOVERNMENT UPDATES

In this context, there have been suggestions that the Government of Canada could play a stronger role to better co-ordinate and support the Canadian cleantech industry looking to enter the Chinese market.

Several recommendations for next steps emerged from the October 12 discussion. Prior to presenting these, it should be noted that the representatives from the government indicated their awareness of the major concerns and demands of stakeholders from the cleantech sector, and they provided updates on their endeavours to address the challenges that Canadian cleantech companies face in exporting to China, which are presented in this section.

#### Existing Resources

Recognizing the challenges that cleantech companies face in their attempt to capitalize on the "China opportunity," various ministries have kicked off different programs to assist Canadian cleantech companies in entering the Chinese market. For instance, 17 out of Global Affairs Canada's (GAC) 51 trade commissions in China work on clean technology, and GAC's budget for cleantech-related endeavours has been increased in Budget 2017. Further, GAC, Export Development Canada, the Business Development Bank of Canada, and Sustainable Development Technology Canada offer financial assistance for Canadian cleantech enterprises. Their initiatives in export funding, sovereign risk insurance, debt and equity financing, and domestic demonstration projects have been invaluable for Canadian companies seeking entry into the Chinese market. The federal government also works closely with provincial governments and industries to establish and promote the Canada brand in foreign countries.

#### Canada-China Working Group on Clean Technology

The Government of Canada established the Canada-China Working Group on Clean Technology in order to direct government resources in a more purposeful manner as Canada seeks to collaborate more closely with China on cleantech. This director-general-level working group, formally announced by Prime Minister Justin



Trudeau and Premier Li Keqiang in September 2016, is jointly led by the Chinese Ministry of Science and Technology; Natural Resources Canada; and Innovation, Science, and Economic Development Canada. The objectives of the working group are to:

- Strengthen government-to-government linkages;
- Facilitate research and development, demonstration, and deployment opportunities; and
- Promote bilateral trade and investment.

The inaugural meeting took place in May 2017, in which the following priority areas in cleantech for bilateral collaboration with China were identified:

- Low-carbon sources of electricity;
- Energy efficiency;
- Expansion of China's transmission grid;
- Next-generation transportation;
- Wastewater treatment;
- Energy extraction;
- Industrial processes and waste remediation; and
- Environmental monitoring equipment.



At the moment, the working group is identifying the interests and needs of Canadian cleantech companies seeking to operate in China, and collecting feedback from provinces in order to further understand how the federal government can better support them. The working group is in its early stages; it is focusing on building relationships with key Chinese stakeholders and getting concrete projects and deals for Canadian cleantech companies.

### **Clean Growth Hub**

A Budget 2017 initiative, the Clean Growth Hub is a new federal organization that supports clean technology stakeholders and project proponents. The Hub will streamline client services, improve federal coordination, enable tracking and reporting on clean technology results across government, and connect stakeholders to international markets. The Hub is all about client service — providing a “no wrong door” approach to clients looking to navigate the federal clean technology landscape. The Hub is an interdepartmental organization which is co-led by Innovation, Science, and Economic Development Canada and Natural Resources Canada with co-located staff from multiple departments and agencies interested in clean technology. The formal launch of the Hub is anticipated in 2017.

### **Provincial Initiatives**

In the past few years, provinces across Canada have been developing their own relations with China.

- **Quebec:** In 2016, the government launched the “Stratégie québécoise de l’exportation 2016-2020”, in which the energy and the environmental sectors were targeted as priority sectors for exports, especially in China. The Québec government also provides flexible funding through the “Programme Exportation” or PEX Program to support Quebec companies’ export activities such as market research studies, travel, tradeshow and international certification fees in various sectors including cleantech. Since 1995, the Quebec government has established a formal S&T agreement with China, which was renewed in 2005 and 2011 with the Ministry of Science and Technology of China (MOST). This agreement includes joint calls for proposals with financial support on each side. Sustainable development, especially in new materials, green technologies, marine technologies and renewable energies have been identified as priority sectors for these calls. Collaborative science and technology projects on environmental and energy topics are also developed through the Quebec government’s agreement with the Shandong government and the Shanghai Municipal Science and Technology Commission. Support for Quebec companies and organization in cleantech is provided through three Quebec offices in China, located in Beijing (1998), Shanghai (1999) and Qingdao (2016).
- **Alberta:** Alberta has signed several MOUs with China State and Provincial institutions to strengthen research and technology development. The most recent MOU was signed by Premier Notley in April 2017. This MOU with the Energy Research Institute of the National Development and Reform Commission recognizes Alberta and China’s growing interest in the areas of energy sector innovation, sustainable economic practices, environmental stewardship and emissions reduction.
- **Ontario:** Ontario is currently finalizing its own cleantech strategy, in which the government aims to help establish Ontario as a recognized North American cleantech hub by leveraging provincial areas of competitive strength to meet growing market demand for new technologies. This strategy will help Ontario firms scale-up and connect to global opportunities, including those in China.
- **British Columbia:** B.C. will form a new Innovation Commission and establish a government advisory panel on the emerging economy to assist with a long-term vision. It also plans to work in partnership with accelerators and explore opportunities in emerging and/or high growth sectors like clean tech.

Many provincial and municipal government departments have concluded memorandums of understanding with China and conducted a number of trade missions. All the provinces represented at the meeting expressed an interest in seeking to co-ordinate their activities to present China with a consistent “Canada brand.” Additional actions they proposed for consideration and further discussion included making alliances across provinces; sharing databases and developing opportunities on common cleantech and environmental issues; issuing joint calls for proposals for research; and holding closed sessions among provinces to discuss detailed partnership plans.

## RECOMMENDATIONS

During the Q&A and feedback sessions, lively discussions took place about the different roles of stakeholders and about the Chinese market and policy environment. In these discussions, several recommendations emerged. These recommendations highlighted the need for either the government or companies to co-ordinate the development of key relationships and share resources to address the challenges specific to the Chinese market.

### 1. IN GENERAL, GOVERNMENT SHOULD BE MORE PRESENT AND INVOLVED IN SUPPORTING CANADIAN COMPANIES IN CHINA.

Participants suggested that increased presence from the Government of Canada would be beneficial for Canadian cleantech companies seeking to operate or already operating in China. In this, government presence and involvement does not necessarily refer to physical presence, but rather to officials playing a greater role in providing more legitimacy and leverage for Canadian companies in their dealings with Chinese government officials and partners. For instance, Global Affairs Canada noted that the presence or involvement of the embassy or consulate has been helpful for Canadian companies undergoing commercial disputes in China. It was noted that government presence – especially involving high-profile officials – provides opportunities for Canadian companies to develop crucial relationships with local government officials and partners, which was mentioned often as one of the key challenges of operating in China. It was suggested that the government could play a more active role in helping Canadian companies find the right partners and intermediaries. Also, an industry representative said that high-level government presence to help their company sign a “lighthouse deal” (the first major project that provides a breakthrough in a new market) would be helpful.

### 2. GOVERNMENT AND COMPANIES SHOULD WORK TOGETHER TO DEVELOP A MORE COHERENT CANADA BRAND.

Participants highlighted the need to develop a more coherent Canada brand to better capitalize on the positive image of the country in the Chinese market. All participants



agreed that the Canadian brand has been received positively around the world, and that its association with cleanliness and health has been particularly beneficial for cleantech companies. It was noted that numerous delegations from various levels of government visit China, and that this creates confusion among Chinese officials and partners. Therefore, the presentation of Canadian cleantech companies under a more coherent Canada brand was recommended by discussants.

### 3. CANADIAN COMPANIES SHOULD COLLABORATE MORE CLOSELY WITH EACH OTHER TO TACKLE THE “SCALE” CHALLENGE.

Participants noted that Canadian cleantech small and medium-sized enterprises (SMEs) often face the “scale” challenge in China, in the sense that they do not have the size to take on major projects commissioned by Chinese clients. In this context, participants noted that greater collaboration between different Canadian cleantech companies and organizations working in a synergetic manner could help them create the scale needed to bid on more contracts and establish themselves in the Chinese market. Further, it was suggested that a more collaborative approach would help smaller Canadian companies protect their intellectual property rights. In this, some sort of peer-to-peer information-sharing consortium for cleantech companies was suggested as a potential solution, which would provide the space for industry stakeholders to share information in a more informal and honest manner and develop relationships for future collaboration.

#### 4. MORE OPPORTUNITIES LIKE CNOOC-NEXEN TRADE MISSIONS SHOULD BE PROVIDED.

The industry panel provided positive feedback on CNOOC-Nexen trade missions, and suggested that more of these would be helpful for Canadian cleantech companies seeking opportunities in China. While the panel expressed mixed feelings about the utility of trade shows, it expressed approval for this type of mission, where a large, well-connected company like CNOOC-Nexen takes Canadian SMEs to China on a regular basis. A mission under the umbrella of a giant company seems to be effective in providing opportunities for smaller Canadian companies to establish key relationships with high-profile Chinese government officials and potential business partners who would otherwise be inaccessible. While this recommendation could be implemented in different ways, multinational enterprises such as CNOOC-Nexen are best positioned to take a lead at the moment.

#### 5. A "HUB" OF CANADIAN CLEANTECH COMPANIES WITH PRESENCE IN CHINA SHOULD BE CONSIDERED.

Many participants agreed that it would be beneficial to establish a physical "hub" that could provide a central point for developing consistent Canadian presence; gathering and sharing the information from the ground; facilitating identification and development of key relationships and market opportunities; and providing a "soft landing spot" and co-ordination for Canadian cleantech companies in China. While some industry representatives expressed disagreement with the idea of a hub on the grounds that existing resources (e.g., trade commissioners) are sufficient and that no more government intervention is necessary, they also commented that more collaboration between companies is necessary and that it would be beneficial to provide more educational opportunities, such as seminars, for information sharing and networking – functions that this hub could provide. Thus, the idea of a hub, whether it is led by the government or industry, should be further examined as a tool to implement the recommendations raised in the meeting.

# APPENDICES

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APPENDIX I: **List of Attendees**

APPENDIX II: **Event Agenda**

# APPENDIX I: LIST OF ATTENDEES

NAME	ORGANIZATION / COMPANY
DAVID FUNG	ACDEG Group
MICHELLE ZHOU	AH Lundberg Systems
ED QUILTY	Aquatic Informatics
EVA BUSZA	Asia Pacific Foundation of Canada
IRIS JIN	Asia Pacific Foundation of Canada
JUSTIN ELAVATHIL	Asia Pacific Foundation of Canada
DONGWOO KIM	Asia Pacific Foundation of Canada
YINGQIU KUANG	Asia Pacific Foundation of Canada
SANDY WAN	Asia Pacific Foundation of Canada
MANDY NG	Asia Pacific Foundation of Canada
NORMAN KEEVIL	Boydell Wastewater Technologies
GORDON KEEVIL	Boydell Wastewater Technologies
VIVIAN KAN	Business Development Bank of Canada
DAVID BROMLEY	David Bromley Engineering
TAMMY HUSTON	Export Development Canada
CHRISTIAN HANSEN	Global Affairs Canada
DAVID TSUI	Global Affairs Canada

FIONA HAWKSHAW	Global Affairs Canada
LEE KRUSZEWSKI	Government of Alberta
ALISON COYNE	Government of British Columbia
CHRIS GILMORE	Government of British Columbia
BRIAN KRIEGER	Government of British Columbia
GREGORY WOOTTON	Government of Ontario
ISABELLE LOMBARDO	Government of Quebec
JEAN-CHRISTOPHE SINCLAIR	Government of Quebec
ERIC BARKER	Innovation, Science and Economic Development Canada
ANDY NOSEWORTHY	Innovation, Science and Economic Development Canada
CATHERINE PETERS	Innovation, Science and Economic Development Canada
CJ RITCHIE	Government of British Columbia
ERIKA COOK	Innovation, Science and Economic Development Canada
ANNIE PRIGGE	Natural Resources Canada
PAM GIBERSON	Natural Sciences and Engineering Research Council of Canada
PAUL AUSTIN	Sustainable Development Technology Canada
GERRY SALEMBIER	Western Economic Diversification Canada

# APPENDIX II: EVENT AGENDA

DEVELOPING A COLLABORATIVE APPROACH TO EXPORTING TO CHINA

## MEETING AGENDA:

8:00 – 9:00 **Light Breakfast and Registration**

9:00 – 9:15 **Opening Remarks**

9:15 – 10:15 **Session 1: Stakeholder Input on Clean Technology Opportunities in China**

This session will draw from the Asia Pacific Foundation of Canada's 2017 National Opinion Poll on Canada's engagement with China, highlighting the priority that Canadians place on collaboration with China regarding measures to address pollution and protect the environment, as well as current public opinion on economic engagement with China.

This session will serve to stage the meeting, bringing all FPT representatives onto the same page and framing the meeting's discussion around issues and considerations that Canadian stakeholders have raised.

This session will feature a presentation, followed by a Q&A period.

10:15 – 10:30 **Break**

10:30 – 11:00 **Session 2: Debrief on Canada-China Working Group on Clean Technology**

Federal officials will provide a brief on the outcomes of the first Canada-China Clean Technology Working Group meeting, including the shortlist of clean technology areas agreed upon for initial collaboration between the two countries, and proposed mechanisms for collaboration discussed between Canada and China on clean technology.

This session will feature a presentation, followed by a Q&A period.

11:00 – 12:00 **Session 3: Hitting the Ground in China**

During this session, Global Affairs Canada will provide a brief overview of federal resources available to Canadian companies interested in exporting to China. Global Affairs Canada will then introduce a panel of industry representatives who will share and discuss their first-hand experiences working in China, including a deeper dive into the technical and operational challenges associated with this market.

12:00 – 13:15 **Working Lunch**

13:15 – 14:30 **Session 4: Discussion on an FPT Action Plan to Support Canadian Companies in Capitalizing on Clean Technology Opportunities in China**

During this session, Working Group members will discuss: their jurisdictions' objectives vis-à-vis clean technology and China; current mechanisms for support; and opportunities to align their efforts with federal government activity. Participants will also discuss the gaps/challenges in supporting Canadian clean technology producers in China and how FPT co-operation could potentially address these challenges (e.g., creating a mechanism to facilitate co-ordination on international visits; sharing information and best practices on intellectual property protection, supply chain integration, potential Chinese partners, etc.)

14:30 – 15:00 **Session 5: Meeting Roundup**

The meeting will close with a discussion of next steps, plans to further develop/refine a shared strategic approach to clean technology opportunities in China, and mechanisms for ongoing collaboration.



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