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SUMMARY REPORTS



The annual Canada-in-Asia Conference (CIAC) is a multi-directional engagement platform for Canada-based and Asia-based companies, institutions, universities, and governments. CIAC convenes business leaders, experts, investors, policy-makers, researchers, and innovators from across Asia and Canada to exchange perspectives, knowledge, and ideas, with the goal of facilitating collaborative partnerships. The conference's plenary and concurrent sessions, as well as dedicated networking times, provide a range of opportunities for engagement and exchange with likeminded partners.

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Trade & Supply Chains

**Canada as a Stable Provider
of Critical Minerals for Asia's
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SESSION 2

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**Harnessing Data and AI for
Clean Technology and Climate
Resilience**

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**Clean Tech Priorities for
Investors**

Canada as a Stable Supplier of Critical Minerals for Asia's Clean Technologies



From left: Keith Tan, Associate Director, Metals & Pricing, S&P Global (moderator); Stewart Paterson, Senior Fellow, Hinrich Foundation; Jan Kwak, Managing Director - Australia and Asia, Hatch; Charlotte Gibson, Associate Department Head and Assistant Professor, Robert M. Buchan Department of Mining, Queen's University; Jess Dutton, Ambassador of Canada to the Republic of Indonesia.

Executive Summary

The panel “Canada as a Stable Supplier of Critical Minerals for Asia’s Clean Technologies” at the CIAC2025 conference brought together experts from academia, industry, and government to explore the critical role Canada plays currently – and could play in the future – in supplying essential minerals needed for clean technologies in Asia. The session highlighted the growing demand for critical minerals amid global energy transition strategies and the challenges posed by emerging geopolitical dynamics. Panellists identified that China has a dominant position in most critical mineral supply chains because of its state-supported investments in all stages of critical mineral supply chains, from mining to the production of batteries for electric vehicles. Panellists discussed Canada’s robust mineral wealth and

“The CPTPP is a potentially great forum within which to create a critical minerals supply chain that is not influenced by super-powers . . . and if we can get Indonesia into the CPTPP, that would be a huge benefit.”

– Stewart Paterson, Senior Fellow, Hinrich Foundation



ongoing initiatives like its [Critical Mineral Strategy](#) launched in 2022. Discussions included the importance of research and innovation in refining processing techniques, as well as the inclusion of a Memorandum of Understanding on critical minerals as part of the recently concluded Comprehensive Economic Partnership Agreement between Canada and Indonesia. The conversation underscored the pressing need for collaborative efforts in research, technology development, financing, and more in the pursuit of environmentally responsible critical mineral supply chains that address the demands of clean technology, including reliable returns for the companies that produce critical minerals.



Key Takeaways

- **Economic Viability:** The economics of critical minerals extraction needs to be optimized, with continued attention to market structures that incentivize supply development. Panellists discussed the potential of growing critical minerals supply chains to function in parallel to the existing China-centric chains, and the novel mechanisms, such as guaranteed minimum prices, that may be required.
- **Collaboration is Crucial:** Canada and Asian countries can contribute to resilient supply chains for critical minerals by sharing best practices and expertise. World-leading sustainable mining and environmental standards can be a competitive advantage for Canadian mining companies and consultancies when jurisdictions in Asia are seeking partners to develop mining projects.
- **Academia's Role:** Work being done at academic institutions, like Queen's University's Critical Minerals Processing Lab, can be pivotal in de-risking mining projects and optimizing mine development and extraction plans, ultimately contributing to a more efficient supply of critical minerals during both boom-and-bust cycles.
- **Innovative Technologies:** The emergence of new processing technologies and circular economies (i.e. incorporating mineral recycling into supply chains), presents significant opportunities for cleaner and greener practices in mining. These innovations need support through investment and collaboration among industry and government partners.
- **Geopolitical Awareness:** Understanding geopolitical dynamics is essential as global economies confront challenges related to control over resources. Canada's long-term partnerships in Asia can help navigate these complexities while fostering co-operation in critical mineral supply chains.

Harnessing Data and AI for Clean Technology and Climate Resilience



From left: Sue Paish, President & CEO, DIGITAL (moderator); Frédéric Laurin, Senior Director, Partnerships and Development, Mila; Minh Le Ngoc, Data Scientist, FPT Software AI Center.

“There’s an opportunity and an imperative for small countries like Canada – big geography but small population – to work together where we share values and share issues like data sovereignty and data protection so that we don’t become reliant on a single partner . . . and we can look to other jurisdictions that are similarly oriented, like Singapore and other partners in Asia, to work on big problems together.”

– Sue Paish, CEO, DIGITAL

Executive Summary

Moderated by Sue Paish, CEO of DIGITAL, one of Canada’s five global innovation clusters, the discussion at the CIAC2025 panel “Harnessing Data and AI for Clean Technology and Climate Resilience” emphasized the importance of collaboration among businesses, governments, and communities to drive the development of technology for climate resilience using big data and artificial intelligence (AI). Frédéric Laurin, Senior Director of Partnerships at Mila, the Montreal-based AI research institute, shared projects Mila scientists are working on related to aspects of climate change detection, adaptation, and response. Minh Le, Senior Data Scientist at FPT Software in Vietnam, shared examples of how his company is using big data and AI to reduce climate impacts, including by developing processes that reduce carbon

emissions in the making of cement and optimizing the efficiency of heating and cooling inside buildings. Panellists stressed the urgent need for renewable energy, adaptation strategies, and investment in green technologies, while underscoring that the crossroads of AI and clean technology holds immense potential but requires focused efforts to drive systemic change.

Key Takeaways

- **Collaboration:** Developing technologies for climate resilience requires collaboration. Bringing together researchers, industry, governments, and communities to contribute complementary expertise will lead to better outcomes than working in silos.
- **Leverage Technology for Local Solutions:** AI can transform climate adaptation strategies, as seen with Mila's efforts in localized climate modelling, that can, for example, accurately predict the timing of monsoon rains in Vietnam or help communities in Indonesia prepare for drought.
- **Applying Technologies Creatively for Climate Resilience:** Panellists discussed using drones and AI to monitor forests and estimate amounts of carbon stored in trees and even using automated cameras and AI to observe and analyze moth populations to gain insights into climate change.
- **Prioritize Speed and Adaptability:** A sense of urgency is critical; the panel highlighted recent climate disasters to stress the need for rapid development and deployment of technologies that can offer immediate and effective responses to environmental threats.
- **Harness Canadian and Asian Ecosystems:** Both regions possess unique strengths and capabilities, offering significant opportunities for collaboration in developing and implementing solutions to tackle the climate crisis.



Fostering Clean Technology Ecosystems in Asia and Canada



From left: Anders Soh, Director, Programmes, Temasek Foundation; Gayathri Gopal, Vice-President, Venture Build, ENGIE Factory; Karl Moore, Associate Professor, Desautels Faculty of Management, McGill University; Lucy Chatburn, Principal Consultant, Cleantech Group; Kelvin Tan, Programme Director, EcoLabs Centre of Innovation for Energy (moderator).

Executive Summary

The CIAC2025 panel “Fostering Clean Technology Ecosystems in Asia and Canada” convened clean technology ecosystem leaders to explore dynamic clean tech innovation landscapes and to draw connections between and among innovators, incubators, and accelerators active in Canada and across Asia. Multiple speakers highlighted the challenging ‘valley of death’ stage early in a startup’s journey in which the company has low revenues but high expenditures as it pursues growth. Speakers also described the supports and services their organizations offer startups, including connections to financing, business expertise, innovation competitions, and go-to-market assistance. They emphasized the importance of collaboration within ecosystems, stressing that partnerships among governments, corporates, and academia are essential for nurturing innovation in the clean tech space. The session underscored that while challenges abound, leveraging shared strengths can accelerate the development of sustainable solutions in a rapidly changing world.

“Events like this are really important to make connections because building connectivity either within an ecosystem or between ecosystems globally is one of the simplest ways to increase effectiveness and scale innovations in the clean tech sector.”

– Lucy Chatburn, Principal Consultant, Cleantech Group

Key Takeaways

- **Embrace Collaboration:** Fostering partnerships between and among startups, corporates, public agencies, and different types of funders is vital for developing robust clean tech ecosystems. Leveraging synergies enhances the development and deployment of innovative solutions across regions.
- **Address the Valley of Death:** Startups must navigate financial challenges while scaling. Providing non-dilutive funding and pilot opportunities, among other innovative approaches to financing, can help startups transition through this phase and achieve market readiness.
- **Leverage Global Innovations for Local Climate Solutions:** Addressing local challenges frequently requires international collaboration. Sourcing ideas and solutions globally, such as through global competitions, can bring innovative ideas and technologies to specific local climate issues.
- **Focus on Operational Readiness:** Clean tech startups must prioritize operational aspects alongside



technological advancements. Ensuring that solutions are scalable and adaptable to diverse markets enhances their attractiveness to investors.

- **Cultivate Talent and Expertise:** Developing skilled talent pipelines is essential for tech-driven sectors. Collaborative training programs and ecosystem support can bridge knowledge gaps in emerging markets to accelerate clean technology advancements. We have opportunities to connect talent in Canada to innovation opportunities in Asia, and vice versa.



Clean Tech Priorities for Investors



From left: Mike Maté, General Partner, Kickstart Ventures; Ellen Martin, Chief Impact Officer, Circulate Capital; Art Robinson, Managing Director, Longbow Capital; Michael Gryseels, Founder & Managing Partner, Antares Ventures; Nuha Siddiqui, Co-founder, CEO, erthos (moderator).

Executive Summary

The CIAC2025 panel discussion on “Clean Tech Priorities for Investors” brought together select investors based in Asia and Canada to share strategies for and experiences of investing in clean technology companies. The conversation highlighted the challenges of scaling clean tech, including financing gaps, regulatory hurdles, the threat to company growth and profitability from changing domestic climate policies, and the opportunity for collaborative efforts across borders. Panellists discussed some of the companies in which they’d invested, including a Montreal-based apparel manufacturer whose closed-loop circular economy process means it is among the most sustainable in its category, and a Calgary-based company whose technology helps clients optimize their power use at the lowest cost. The panel emphasized the importance of aligning investor interests with impactful projects and founders committed to scaling their companies in timeframes that are simultaneously

“ We only invest in a company if it has a willingness to come to Asia. They need to have a presence in Asia within 12 months of our investment . . . All of our Canadian start-ups have signed such a side letter with us and several of them now have Asia as their second biggest market.”

– Michael Gryseels, Founder & Managing Partner, Antares Ventures

attainable, realistic for investor returns on investment, and that will ultimately deliver sustainable outcomes. Panellists agreed there remains much fertile ground for ongoing collaboration among Canada-based and Asia-based investors and clean tech innovators, especially in terms of scaling promising clean tech companies.

Key Takeaways

- **Investment Opportunities Abound:** Investors are increasingly focusing on clean technologies that both promise financial returns and contribute to significant positive environmental impact. Identifying adaptable solutions, like micro hydro technologies, is essential for capitalizing on the growing demand for sustainable energy.
- **Financing is Key:** Access to adequate financing remains a barrier for many clean tech firms. Fostering environments conducive to innovative and/or tailored financing models can be important components of scaling clean tech companies.
- **Collaboration is Crucial:** The clean tech landscape thrives on collaboration. Partnerships between Canadian and Asian firms can bridge expertise gaps and facilitate the scaling of innovations, particularly in regions with acute climate challenges.
- **Navigating Policy Landscapes:** Understanding the regulatory environments and incentive structures in target markets is vital. Investments that are resilient to policy shifts are more likely to succeed. Engaging with local governments can help align local priorities with new technologies in pursuit of sustainable objectives.
- **Understanding Time Scales:** Just as every company's pathway to scaling will be different, every investor's appetite for the duration of its investments will also be different. The journey toward sustainable clean tech solutions may require patience, as innovations may take years to reach scalability. Ensuring that investor and founder expectations are aligned in terms of time scales is crucial.



About the Asia Pacific Foundation of Canada

The Asia Pacific Foundation of Canada (APF Canada) is an independent not-for-profit organization focused on Canada's relations with Asia. APF Canada is dedicated to strengthening ties between Canada and Asia through its research, education, and convening activities. For over four decades, our research has provided high-quality, relevant, and timely information, insights, and perspectives on Canada-Asia relations for Canadians and stakeholders across the Asia Pacific. Our mission is to be Canada's catalyst for engagement with Asia and Asia's bridge to Canada.



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