CIAC 2025 CCEA
OCEAN TECH & BLUE ECONOMY
TECHNOLOGIES OCÉANIQUES
ET ÉCONOMIE BLEUE

ASIA PACIFIC FOUNDATION OF CANADA
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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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SESSION 1 — Artificial Intelligence

Advancing the Blue Economy Through AI

SESSION 2 — Trade & Supply Chains

Collaborating on Shipping Decarbonization

SESSION 3 — Innovation Ecosystems

Connecting Ocean and Blue Economy Investors

SESSION 4 — Investment & Finance

Facilitating Investment in Blue Economy Solutions

Advancing the Blue Economy Through AI

From left: Bernice Tang, Impact Lead, Potato Impact Partners (moderator); Bill Collins, Director & Founding Partner, Cascadia Seaweed; Prasad Nair, Director, Business Development, MDA Space; Clinton Libbey, Co-Founder & Managing Director, Kumi Analytics; Raj Somasundaram, Founder & CEO, Aquaconnect.

Executive Summary

The CIAC2025 panel "Advancing the Blue Economy Through AI" brought together industry leaders to explore the transformative role of artificial intelligence (AI) in ocean economy solutions. Moderated by Bernice Tang, Impact Lead for Potato Impact Partners, the session highlighted innovative applications of AI and geospatial technologies in enhancing marine conservation, blue carbon offsets, and aquaculture efficiency. Panellists from Canada and India shared insights on diverse projects, such as Bill Collins' use of AI for fish community and ecosystem monitoring in

> **"In a typical mangrove restoration project, the first step is generating a carbon stock baseline, from which you measure changes over time. Prior ways that this was being done would take anywhere between three to four years to get your initial baseline. Now we can do this with satellite imagery. . . we'll do this with multiple satellites, so we're talking maybe a week or two to get all the data we need, and then with AI models we can process all that data and have the baseline carbon stock report available in about three months. . . and the client can receive carbon offsets in about a year."**
>
> *– Clinton Libbey, Co-Founder & Managing Director, Kumi Analytics*

seaweed farms, and Raj Somasundaram's application of AI to geospatial imagery and data to streamline decision-making at different points in the aquaculture value chain in India. Prasad Nair shared how MDA Space uses AI and images from its satellites to identify potential dark vessels, i.e. ships engaged in illegal fishing or smuggling. The discussion focused on overcoming data transparency barriers, improving decision-making, and fostering collaboration across the industry. As the blue economy is poised for growth, leveraging AI can drive sustainable practices and profitable business solutions while addressing environmental challenges.

Key Takeaways

- **Innovative Technologies Enhance Sustainability:** Panellists emphasized how AI and satellite imagery improve efficiencies in aquaculture and marine conservation, such as an initiative that used remote sensing for carbon offset projects, expediting measurements that traditionally took years.
- **Data Transparency is Paramount:** The aquaculture industry faces challenges due to data scarcity. Raj Somasundaram highlighted Aquaconnect's role in enhancing market transparency through geospatial images, enabling better production decisions and traceability along the aquaculture supply chain.
- **Fostering Collaboration for Greater Impact:** Emphasizing cross-ecosystem partnerships, the panel urged businesses to collaborate and share insights, and to leverage remote sensing and in-situ technologies to strengthen blue economy processes in the pursuit of both sustainability and profitability.
- **Embrace Non-Intrusive Technologies:** As satellite and geospatial data becomes increasingly affordable, simplifying technology access for smallholder farmers – through affordable software or access to data instead of through expensive data-collecting hardware – can lead to greater adoption and improved productivity.
- **Addressing Gaps in Modelling and Data:** The need for improved methodologies in ocean data collection was noted. Solutions like underwater drones and integrated sensor technology could bridge existing gaps, enabling more accurate marine ecosystem assessments.

Collaborating on Shipping Decarbonization

From left: Hubert Bolduc, President, Investissement Québec International (moderator); Kuo Dyi Chang, AVP Sustainability, PSA International; Tatsuhiko Asami, General Manager, Business Group No.1, NYK Bulk & Projects Carriers Ltd.; Sanjay Bakshi, Group Director Digital & Innovation and Head of Americas Market (Energy Storage), Durapower; Shaun Hon, Founder and General Partner, Motion Ventures; Otto Ardianto, Chairman, Pelindo Jasa Maritim.

Executive Summary

The CIAC2025 panel "Collaborating on Shipping Decarbonization" emphasized collaboration between Canada-based, Asia-based, and international stakeholders. Key industry leaders from organizations such as PSA International (Singapore), NYK (Japan), Durapower (Singapore), Motion Ventures (Singapore), Pelindo (Indonesia), and Invest Québec International (Canada) discussed the need for innovation in maritime fuel sources like hydrogen, methanol, and biodiesel. They highlighted that while ports and shipping lines champion sustainability, regulatory alignment across jurisdictions and infrastructure development remain significant challenges. The potential of electrification and alternative fuels to significantly reduce emissions was underscored, presenting various approaches to a green maritime future. Case studies, including Singapore's green port initiatives, Japan's exploration of hybrid fuels, and the North Pacific Green Corridor Consortium, illustrated diverse pathways toward net-zero goals.

> **"If we bring the cost down sufficiently, we'll see a lot more uptake. I think we're seeing a lot more capital coming into this space, which should substantially bring the cost down. So I'm extremely optimistic on the pathway to decarbonize in maritime. I'm extremely optimistic to see the digitalization in the space . . . And we're seeing so many talents that are not from the maritime space coming in to solve problems here because the problem sets are big enough."**
>
> *– Shaun Hon, Founder and General Partner, Motion Ventures*

Key Takeaways

- **Innovation in Fuels:** Decarbonization efforts should prioritize a blend of alternative fuels, including ammonia, methanol, and biodiesel. Transitioning to these options can provide immediate emissions reductions while longer-term solutions such as hydrogen are developed and commercialized.
- **Collaboration is Key:** Establishing partnerships between Canadian and Asian maritime stakeholders can drive progress in decarbonization. By sharing best practices and aligning regulatory frameworks, industries can streamline efforts toward a sustainable maritime future. But as shipping is a global business, collaborative solutions that move us toward net-zero shipping must be deployed globally.
- **Electrification's Role:** Ports are pivotal in the decarbonization journey; electrification of port operations can substantially lower emissions. Investments in battery storage and renewable energy for ports are critical steps in this transition.
- **Funding & Regulation:** Government incentives and consistent regulatory support are essential to facilitating advancements in green technologies for shipping.
- **Stakeholder Engagement:** The maritime sector must better engage all stakeholders, including ship operators, cargo owners, and regulators. Cohesive strategies that address objectives across companies and jurisdictions are vital for the effective implementation of decarbonization initiatives.

Connecting Ocean and Blue Economy Investors

From left: Kendra MacDonald, CEO, Canada's Ocean Supercluster (moderator); Takashi Gojobori, Institute Director, Marine Open Innovation Institute; Atsushi Sunami, President & CEO, Sasakawa Peace Foundation; Bernice Tang, Impact Lead, Potato Impact Partners; Yi Han Ng, Director (Innovation, Technology and Talent Development), and Chief Transformation Officer, Maritime and Port Authority of Singapore; Amalia Adininggar Widyasanti, Shepherd of the ASEAN Blue Economy Coordinating Task Force, Republic of Indonesia.

Executive Summary

The CIAC2025 panel "Connecting Ocean and Blue Economy Innovators" highlighted the burgeoning synergies between Canada and Asia in the blue economy sector. Kendra MacDonald from Canada's Ocean Supercluster and Takashi Gojibori from Japan's Marine Open Innovation Institute (MAOI), shared their respective efforts to foster innovation, collaboration, and sustainable practices. McDonald emphasized Canada's extensive network of 800 members across various provinces, while Gojibori introduced MAOI's focus on international collaboration and support for startups. Atsushi Sunami drew attention to multiple opportunities for Canada-Asia collaboration across a range of ocean-related undertakings, including the Arctic as a focus for transportation, innovation, and science. Yi Han Ng shed light on Singapore's standout position as a regional and global hub for shipping and marine logistics and related innovation, while Bernice Tang focused on innovative

> **"For impact investing there is an expectation of financial return and also that the impact be tracked through metrics and standards and frameworks. And that for us was something that is compelling in terms of governance of Canadian companies."**
>
> *– Bernice Tang, Impact Lead, Potato Impact Partners*

financing mechanisms, including impact investing through Singapore-based family offices, to bridge gaps in blue economy collaboration and technology development. Amalia Widyasanti highlighted aspects of the ASEAN Blue Economy Framework, adopted by ASEAN in 2023, and in particular the vast economic growth opportunity that the blue economy promises for ASEAN countries such as Indonesia. With an exciting roadmap ahead, the panel underscored the vital importance of collaborative approaches to address multiple challenges and objectives for governments and companies within the blue economy, including environmental sustainability and marine protection, oceans as vectors for connectivity, and economic growth.

Key Takeaways

- **Emphasizing Collaboration:** Successful international partnerships require an alignment of interests and shared objectives among stakeholders. A focus on open innovation, as seen in Japan's MAOI, can pave the way for innovative solutions in the blue economy.
- **Building Sustainable Ecosystems:** Canada and Singapore exemplify thriving ecosystems that attract startups and innovators. Establishing networks and hubs can enhance resource sharing and knowledge exchange, which is essential for driving sustainable blue economy initiatives.
- **Financing Mechanisms Matter:** Innovative financing, such as that pursued by family offices in Singapore, plays a crucial role in nurturing startups within the blue economy. Creative funding approaches can catalyze growth and ensure long-term sustainability.
- **Diverse Investment Opportunities:** The potential of seaweed as a multifaceted resource underscores the need for investment in innovative agricultural practices and technologies. Seaweed offers a plethora of benefits, from food security to climate resilience, making it a key focus area.
- **Addressing Barriers Together:** Recognizing and addressing the challenges within the ocean innovation space is crucial. By fostering collaboration and transparency, stakeholders can develop actionable strategies to overcome barriers and accelerate growth in the blue economy sector.

Facilitating Investment in Blue Economy Solutions

From left: Charles Goddard, Editorial Director, Economist Impact (moderator); Kendra MacDonald, CEO, Canada's Ocean Supercluster; Kathlyn Tan, Principal, Rumah Group; Dhritiman Hui, Managing Director, Eastern Pacific Shipping (EPS) Ventures; Eduardo Leaño, Director General, Network of Aquaculture Centres in Asia Pacific.

> **"How does capital get more involved in driving innovation for the blue economy in the region? . . . Investing in the ocean is not something that is particularly well understood or well appreciated; building greater awareness among financial institutions for the opportunity as well as the need to protect their own assets and their own interests is an important step."**
>
> *– Charles Goddard, Editorial Director, Economist Impact*

Executive Summary

The CIAC2025 panel "Facilitating Investment in Blue Economy Solutions" highlighted the urgent need for increased investment in the sustainable ocean economy. Moderated by Charles Goddard, Economist Impact's editorial director, the session featured experts who shared insights on the structural challenges (and some opportunities) in attracting different types of investment capital into the blue economy, with a focus on Canada and Southeast Asia. Kendra MacDonald, CEO of Canada's Ocean Supercluster, discussed the potential of innovative ocean technologies and startups to drive sustainable growth. Kathlyn Tan from Rumah Group emphasized the critical need for local solutions in marine protection, notably the alarming statistic that only 3 per cent of Southeast Asia's land, freshwater, and oceans are formally protected. Dhritiman Hui of EPS Ventures explored the pivotal role of

shipping, particularly in attracting investment and talent to address related complex challenges such as reducing carbon-intensive fuel use by shipping companies, while Eduardo Leaño addressed nature-based solutions in the context of the global aquaculture industry, which in 2022 surpassed capture fisheries in terms of seafood production.

Key Takeaways

- **Investment Gaps:** To drive significant growth in the blue economy, stakeholders must identify innovative financing mechanisms to boost capital flowing into the sector across Canada and Asia. Philanthropy and impact investing could be a catalyst for crowding in investment from more traditional capital sources such as private equity and VCs.
- **Local Engagement:** Effective marine conservation relies on locally driven solutions. Engaging coastal communities ensures stakeholder ownership, which is critical for the success of marine protection efforts, especially in Southeast Asia.
- **Technology as a Catalyst:** Innovations in biotechnology and artificial intelligence can significantly enhance marine sustainability. Canada's Ocean Supercluster's support of more than 100 technology-driven projects exemplifies how concerted efforts can lead to scalable solutions.
- **Regulatory Support:** Significant policy intervention is needed to transition the shipping industry towards sustainability. Regulatory frameworks that incentivize the adoption of greener technologies within the maritime sector will help with energy transitions in shipping.
- **Collaborative Ventures:** Cross-regional partnerships between Canadian and Asian ecosystems can foster shared learning and accelerate the blue economy's growth trajectory. Collaborative ventures can address common challenges and leverage collective expertise for greater impact.

About the Asia Pacific Foundation of Canada

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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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