TOGETHER | ENSEMBLE

2024

INNOVATION FOR THE SDGs

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ACKNOWLEDGEMENTS

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Together|Ensemble is Canada's national conference devoted to tracking progress on the 17 Sustainable Development Goals, a set of ambitious goals agreed to by world leaders at the United Nations to guide global action on the urgent economic, social, and environmental challenges facing our planet. With a timeline to 2030, achievement of the SDGs around the world is woefully off-track.

Originally convened in 2017, Together|Ensemble has become an important milestone event for tracking progress and raising ambitions for the SDGs in Canada. To learn more or access session recordings, visit www.togetherensemble.ca.

EXECUTIVE SUMMARY

Together|Ensemble 2024 was the sixth iteration of the conference, bringing together Canadians from all sectors to track innovations for the Sustainable Development Goals (SDGs) in Canada. This year marked the first time the conference was held primarily in-person since 2019, hosted at the Balsillie School of International Affairs in Waterloo, Ontario. The conference brought together 175 delegates in-person and 600 delegates online to explore the theme of "Innovation for the SDGs", with a focus on innovations in Future Cities, AI and Emerging Tech for Eco-Innovation, and Sustainable Finance.

FUTURE CITIES:

Cities around the world face complex challenges, from aging infrastructure, adapting to a changing climate, and growing rates of inequality and unaffordability. Anticipating and planning for these long-term challenges is known as strategic foresight or "future's thinking" and is quickly becoming an essential and critical skill for city leaders to develop and deploy in the face of these mounting challenges. We must prepare for the future with a proactive planning approach, one that considers how different elements of our communities work together to create comprehensive solutions. The challenges are large so we must be bold and take on these challenges fearlessly by pushing for innovative solutions.

AI & EMERGING TECH FOR ECO-INNOVATION:

Cutting-edge technologies such as artificial intelligence (AI), blockchain, and quantum computing are already being harnessed to accelerate sustainable development outcomes. AI-powered solutions are revolutionizing how we manage natural resources, enabling precision agriculture, smart water management, and more efficient grid management to balance energy loads, thereby lowering carbon footprints. But the integration of AI currently lacks accountability and enforceable regulations, instead relying on voluntary codes of conduct making it difficult to ensure widespread adherence to ethical standards in AI development and deployment. The opportunities are large in the adoption of AI for sustainability, but so are the risks. Leveraging strong government initiatives in AI with private equity investment to drive advancements in public welfare through technology will be significant, as well as integrating AI technologies with a focus on accountability, ethical use, and long-term societal benefits.

SUSTAINABLE FINANCE:

Sustainable finance refers to the integration of environmental, social, and governance (ESG) criteria into investment decision-making processes to promote long-term sustainability and positive social impact. It aims to balance financial returns while also directing capital towards projects, businesses, and technologies that address climate change, enhance resource efficiency, and foster social inclusion. Financial institutions and investors are recognizing that

integrating ESG can lead to better risk management and more resilient portfolios, and as a result, sustainable finance is becoming a mainstream aspect of the global financial landscape, fostering innovation and collaboration across sectors to address some of the most pressing challenges of our time.

FUTURE CITIES

Cities around the world face complex challenges, from aging infrastructure, adapting to a changing climate, and growing rates of inequality and unaffordability. Anticipating and planning for these long-term challenges is known as strategic foresight or “future’s thinking” and is quickly becoming an essential and critical skill for city leaders to develop and deploy in the face of these mounting challenges.

Imagining our Future

Future cities are envisioned with resilience and adaptability at their core, leveraging advanced technologies like AI and big data to create smart urban environments. These cities will utilize real-time data to optimize energy usage, reduce waste, and improve public services, ensuring efficient resource management and sustainable living. Urban planning will be deeply integrated with natural ecosystems, promoting green spaces, biodiversity, and climate resilience through innovative infrastructure and design. Mobility will be revolutionized through the adoption of autonomous vehicles, shared transportation networks, and extensive public transit systems that reduce reliance on private car ownership. Urban areas will prioritize pedestrian and cyclist-friendly designs, enhancing walkability and reducing traffic congestion.

Social inclusivity and equity will be fundamental in shaping future cities. Affordable housing, accessible healthcare, quality education, and robust social safety nets will be integral components of urban development. Technological advancements will ensure that all citizens have access to digital services, bridging the digital divide and fostering greater social cohesion. Community engagement and participatory governance will empower residents to have a say in the planning and development processes, ensuring that diverse voices are heard and considered. Collaborative efforts between governments, businesses, and civil society will be essential in addressing the multifaceted challenges of urbanization, creating cities that are not only smart and sustainable but also just and inclusive for all.

FUTURE CITIES

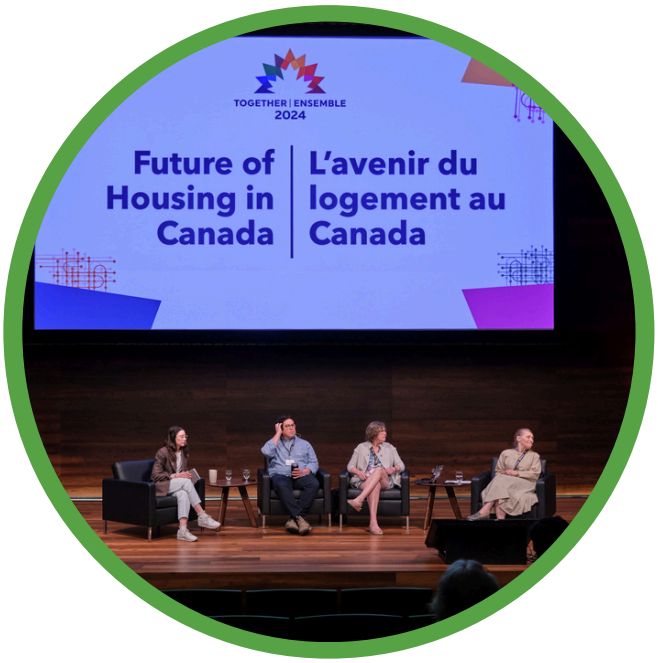
The conversation on Future Cities at Together|Ensemble 2024 focused on the following key take-aways:

Challenges and Barriers

- **Turbulent Times:** The unpredictability of multiple, concurrent crises, such as global conflicts and climate change, complicates planning and development.Conflicts damage critical infrastructure in cities, leading to challenges in rebuilding and maintaining social cohesion.Extreme weather events are becoming more frequent and severe, impacting daily life and infrastructure.
- **Aging Population:** Canada's growing elderly population presents challenges in adapting services to meet their needs, including housing, healthcare, and transportation.

"Affordability is about building the entire community."

Mayor Dorothy McCabe, City of Waterloo



- **Technological Challenges:** The rapid advancement and deployment of technology can have unintended consequences and exacerbate the digital divide, especially in rural and Indigenous communities.
- **Mental Health Crisis:** The weight of concurrent crises is contributing to a growing mental health crisis, exacerbated by drug abuse and overdoses.
- Homelessness: Increasing homelessness in cities is a significant challenge that requires comprehensive solutions.
- **Economic Inequality:** Wealth is concentrated among a small group, creating disparities and limiting opportunities for broader societal benefits.

Opportunities

- **Strategic Foresight:** Preparing for the future with a proactive approach can help design inclusive and equitable solutions.
- **Smart Cities:** Leveraging technology to create smart cities can optimize resource management and improve quality of life.
- **Systemic Thinking:** Integrating different domains and thinking systematically can create more effective and comprehensive solutions.
- **Collaboration:** Working together with various stakeholders, including governments, businesses, and nonprofits, can address multifaceted urban challenges.

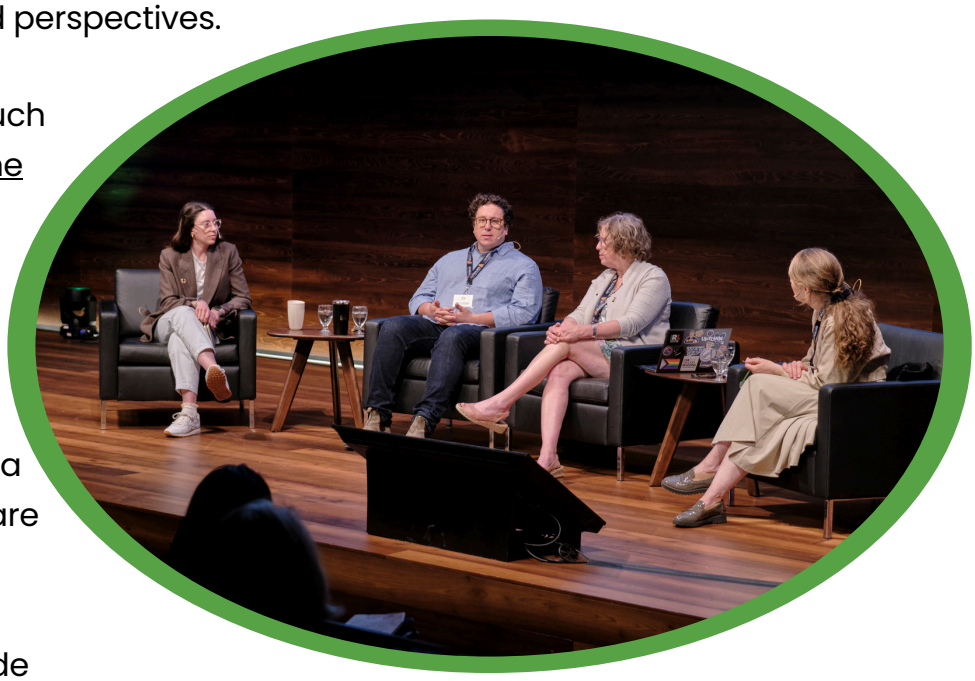
"In the face of challenges, be bold. Have big ideas. Think as big as the world. And bring those ideas forward."

Helen Kerr, Co-President, Kerr Smith Design

- **Economic Reconciliation:** Investing in infrastructure and job creation in Indigenous communities can promote prosperity and inclusion.
- **Decolonization and Degrowth:** These approaches can offer new pathways for sustainable development and equity.
- **Innovation and Pragmatic Optimism:** Fostering innovation and maintaining a hopeful outlook can drive progress despite challenges.
- **Resource Sharing:** Rethinking resource usage, such as communal resources, can promote sustainability and reduce waste.
- **Smart Transportation:** Developing autonomous and electric vehicles, as well as robust public transit systems, can reduce emissions and improve urban mobility.
- **Youth Engagement:** Incorporating sustainable development into education can prepare future generations to tackle these challenges effectively.

Actions

- **Be Bold:** Take on challenges fearlessly and push for innovative solutions, even when leadership is hesitant.
- **Think in Systems:** Consider how different elements of a system can work together to create comprehensive solutions, as seen in Houston's homelessness response system.
- **Embed Foresight in Strategy:** Include strategic foresight in planning processes to anticipate and prepare for future challenges.
- Design the Future Now: Actively design and implement solutions for the future, incorporating diverse voices and perspectives.
- **Support Local Initiatives:** Collaborate with local entities, such as the Future Cities Institute at the University of Waterloo, to tackle real-world problems through interdisciplinary approaches.
- **Focus on Sustainable Development:** Find innovative ways to achieve the 2030 Agenda without delay, ensuring actions are inclusive and equitable.
- **Address the Digital Divide:** Prioritize bridging the digital divide to ensure all communities have access to technology and its benefits.
- **Climate-Resilient Housing**: Develop housing solutions that can withstand extreme weather events and adapt to climate change.
- **Policy Advocacy:** Continue advocating for policies that support energy transition, access to capital, procurement, infrastructure, and corporate governance aligned with sustainable development.

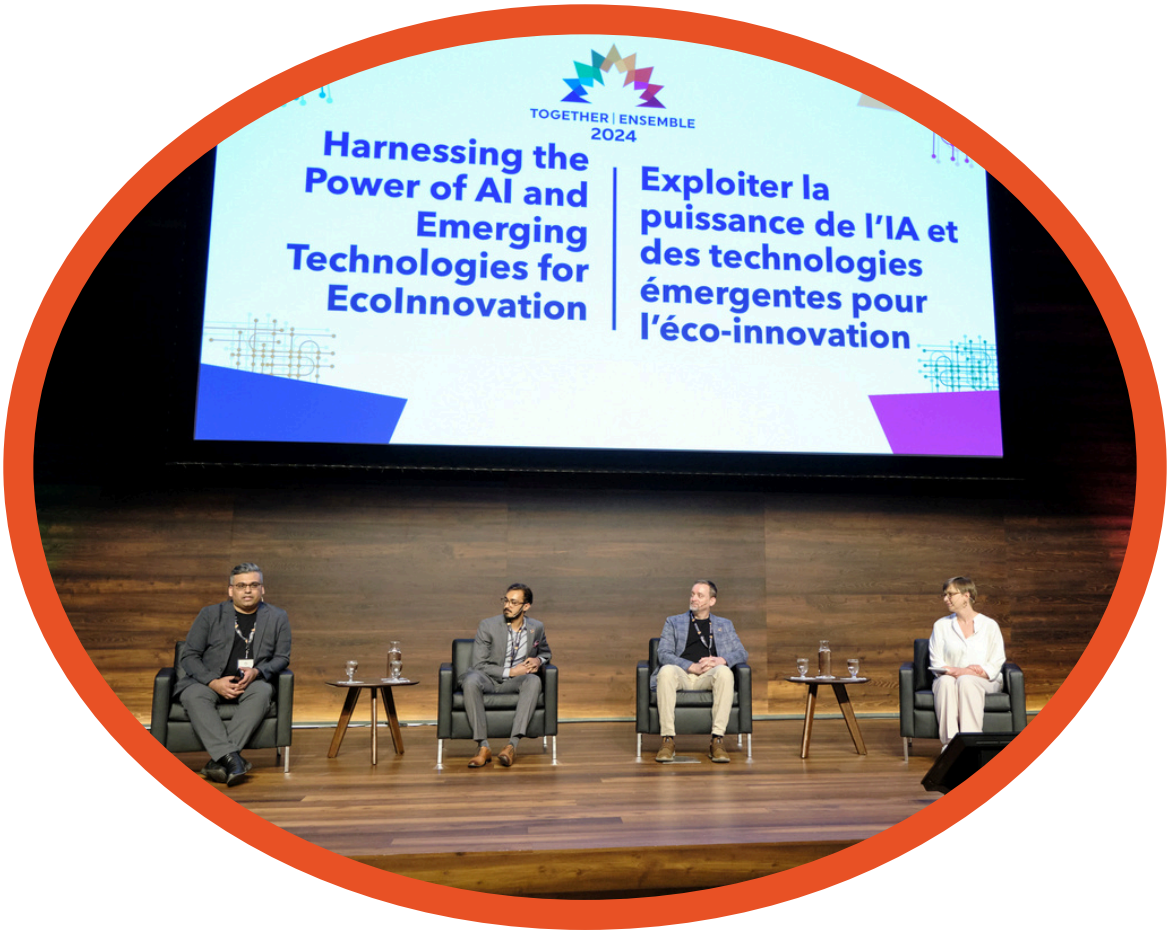


"We need to stop pointing fingers and start looking for more solutions."

Sean Campbell, Executive Director, Union Co-operative

A.I. & ECO-INNOVATION

Cutting-edge technologies such as artificial intelligence (AI), blockchain, and quantum computing can be harnessed to accelerate sustainable development outcomes, including the responsible deployment of these technologies, their potential to scale the impact of clean tech, and their role in achieving Agenda 2030.



The A.I. Advantage

AI-powered solutions are revolutionizing how we manage natural resources, enabling precision agriculture, smart water management, and efficient energy consumption (e.g. algorithms provide farmers with insights on crop health, soil conditions, and weather patterns). In urban settings, AI-driven smart grids can balance energy loads, integrate renewable sources, and reduce energy waste, thereby lowering carbon footprints. Additionally, AI can enhance recycling processes by automating sorting systems and improving the efficiency of waste management, contributing to a circular economy where materials are reused and repurposed rather than discarded.

A.I. & ECO-INNOVATION

The conversation on AI & Emerging Tech for Eco-Innovation at Together|Ensemble 2024 focused on the following key take-aways:

Challenges and Barriers

- **Responsible AI in Voluntary Context:** The integration of AI is currently largely focused on voluntary frameworks, lacking enforceable regulations. Voluntary guidelines may lack enforcement mechanisms, making it difficult to ensure widespread adherence to ethical standards in AI development and deployment.
- **Individual Accountability:** The need for individuals, beyond organizations, to take personal responsibility for ethical AI development and deployment. Beyond organizational responsibilities, there's a critical need for individuals involved in AI projects to take personal accountability. This includes developers, engineers, data scientists, and decision-makers ensuring that ethical considerations are integral to their work throughout the AI lifecycle.
- **Trustworthiness and Transparency:** Ensuring AI systems are transparent, credible, and accountable to build trust among users and stakeholders. Trust in AI systems is crucial for their acceptance and effectiveness. Transparency involves making AI processes and decisions understandable and traceable, while trustworthiness ensures that AI operates reliably and ethically, addressing concerns about bias, privacy, and fairness.

> **"The difference with AI is the need for individuals to be held accountable, and not to wait for anyone to tap you on the shoulder to tell you that you pushed the limit. For this we need education."**
>
> *Kevin Tuer, Chief Technology Officer, Communitech*

- **Bias in AI Data:** The risk of biased data leading to discriminatory outcomes, as AI learns from historical data that may perpetuate inequalities. AI models learn from data, and if this data is biased or reflects historical inequalities, it can perpetuate biased outcomes. Addressing bias in AI data involves careful selection, preprocessing, and ongoing monitoring to mitigate discriminatory impacts in AI applications.
- **Regulatory Pace:** The rapid advancement of AI technologies often outpaces the development of regulatory frameworks hindering effective oversight and adaptation to new challenges. This gap can lead to challenges in effectively governing AI, adapting regulations to emerging risks, and ensuring that AI developments align with societal values and expectations.

Opportunities

- **Government and Private Sector Collaboration:** Leveraging strong government initiatives in AI with private equity investment to drive advancements in public welfare through technology. Collaboration between governments, private sectors, and investors can drive significant advancements in AI technologies.
- **Business Opportunities in AI:** Exploiting AI technologies to enhance public welfare through innovative business solutions in areas like healthcare, sustainability, and efficiency. Applications in healthcare, sustainability, smart cities, and efficiency improvements offer promising avenues for businesses to contribute positively to society while driving economic growth.
- **Policy, Education, and Collaboration:** Implementing comprehensive policies, fostering early education on AI ethics, and promoting collaboration among stakeholders to establish binding regulations.
- **Healthcare and AI:** Utilizing AI advancements to revolutionize healthcare delivery, improving patient outcomes and operational efficiencies.

"We can have a long-term strategy and use the AI to unlock a complete system redesign. And when you realize you can redesign the complete system, productivity can skyrocket."

Ajay Agrawal, University of Toronto's Rotman School of Management

- **Harnessing AI for Sustainability:** Addressing both risks and benefits of AI to enhance sustainability efforts, such as predicting climate impacts and optimizing renewable energy resources. By addressing environmental challenges through AI, organizations can achieve greater sustainability and resilience.

Actions

- **Incorporating AI Responsibly:** Encouraging the integration of AI technologies with a focus on ethical considerations and long-term societal benefits. Organizations should prioritize integrating AI technologies responsibly, considering ethical implications and societal impacts throughout the development, deployment, and use phases.
- **Accountability Across Stakeholders:** Ensuring developers, deployers, and implementers of AI are accountable for ethical standards, not just scientists or engineers. Stakeholders must be held responsible for upholding ethical standards, transparency, and fairness in AI applications to build trust and mitigate risks associated with AI deployment. privacy, ensure fairness in AI decision-making, and enforce ethical standards in AI
- **Educational Empowerment:** Empowering individuals and organizations through education to understand and adopt responsible AI practices.
- **Investor Responsibility:** Investors play a critical role in promoting transparency and accountability in AI initiatives. They need to prioritize investments in AI projects that adhere to ethical standards, disclose AI applications clearly, and support initiatives that contribute positively to society and the environment.
- **Legal Support for AI Ethics:** Legal frameworks should be developed to safeguard data privacy, ensure fairness in AI decision-making, and enforce ethical standards in AI

"You'll never go wrong by understanding who will be impacted by the AI model, and involving the stakeholders."

Mardi Witzel, Co-Founder and CEO, PolyML

SUSTAINABLE FINANCE

Organized in partnership with ESGTree

Sustainable finance refers to the integration of environmental, social, and governance (ESG) criteria into investment decision-making processes to promote long-term sustainability and positive social impact. It aims to support the transition to a more sustainable economy by directing capital towards projects, businesses, and technologies that address climate change, enhance resource efficiency, and foster social inclusion. This approach is also known as “impact investing” and seeks to balance financial returns with the broader goal of sustainable development, encouraging transparency, accountability, and ethical practices within the financial sector. By considering ESG factors, sustainable finance helps mitigate risks associated with environmental degradation, social inequality, and poor governance, while also unlocking opportunities for innovation and growth in green technologies and sustainable industries.

“How do you embed ESG in the business? You empower the team to champion ESG, you give them the tools to do it.”

Samuel Akyianu, Managing Director at Mastercard Foundation Africa Growth Fund at MEDA

Growth in Sustainable Finance

The growth of sustainable finance is driven by increasing awareness of the impacts of climate change, resource scarcity, and social inequalities, as well as by regulatory pressures and shifting consumer preferences. Governments and international organizations are developing and standards to promote sustainable finance, such as the European Union's Sustainable Finance Disclosure Regulation (SFDR), the Task Force on Climate-related Financial Disclosures (TCFD), and the International Sustainability Standards Board (ISSB) which is developing standards that will result in a high quality, comprehensive global baseline of sustainability disclosures focused on the needs of investors and the financial markets.

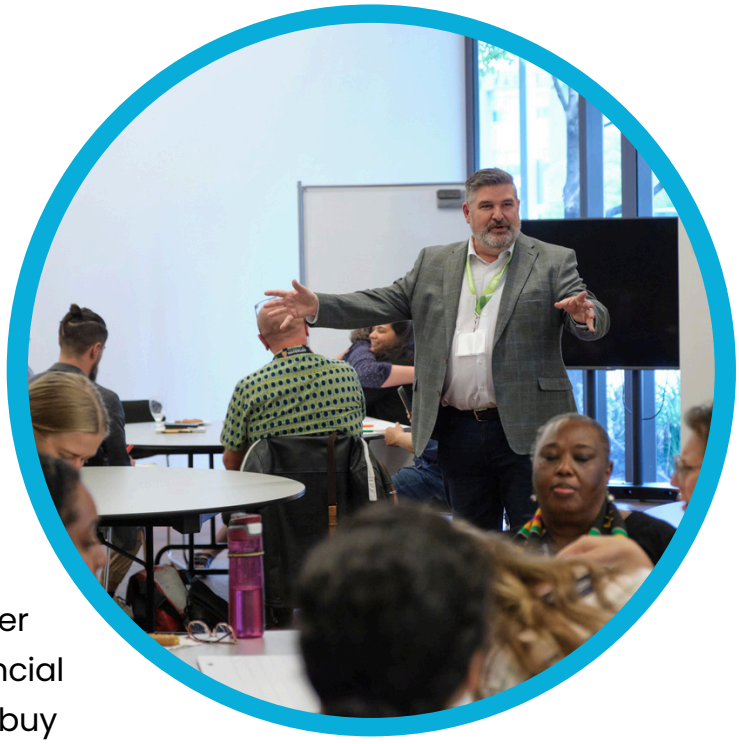
Financial institutions and investors are also recognizing that integrating ESG factors can lead to better risk management and more resilient portfolios. As a result, sustainable finance is becoming a mainstream aspect of the global financial landscape, fostering innovation and collaboration across sectors to address some of the most pressing challenges of our time.

SUSTAINABLE FINANCE

The conversation on Sustainable Finance at Together|Ensemble 2024 focused on the following key take-aways:

Challenges & Barriers

- **Mindset of Traditional Funds:** Traditional funds often exhibit risk aversion as a result of fiduciary duty, which can be a significant obstacle to engaging in impact investing. This reluctance stems from concerns over potentially lower economic returns from impact-focused opportunities or lack of awareness about investment opportunities that fulfill a Triple Bottom Line (people, planet and prosperity).
- **Private Capital Investment Focus:** Private capital investors have unique characteristics which can contribute to sustainable development due to their large shareholdings, board seats and direct influence on the companies they invest in. The tendency in private markets has been to invest where there is a known return, which can drive innovation but may overlook high-impact areas with uncertain returns.
- **Short-termism in Financial Markets:** Many investors and financial markets focus on short-term returns, which can be a barrier to investing in long-term sustainable projects that might not yield immediate financial gains.
- **High Initial Costs**: Sustainable investments, particularly in new technologies or infrastructure, can require substantial upfront capital, which can be a deterrent for investors looking for lower-cost, quicker-return opportunities
- **Market Liquidity Issues**: Sustainable finance markets, such as those for green bonds, can suffer from lower liquidity compared to traditional financial markets. This can make it harder for investors to buy and sell sustainable assets.



Opportunities

- **Company Profitability with Sustainability:** Companies that integrate sustainability holistically tend to be more profitable. Sustainable practices can lead to improved efficiency, better risk management, and enhanced reputation, ultimately driving higher financial returns.
- **Impact Investment and SDGs:** Impact investment is intention-focused and aligns with addressing global sustainability needs, supporting the achievement of the SDGs. This form of investment can generate positive social and environmental impacts while providing financial returns.
- **Room for Innovation:** Impact investing opens avenues for innovation, driving positive change in communities and delivering returns for investors. Innovative solutions can address pressing social and environmental issues, leading to sustainable development.
- **Focused SDG Investment:** Concentrating efforts on a few SDGs at a time can yield more substantial impacts. Due to the interconnected nature of SDGs, targeted investments in specific areas can produce positive ripple effects on other sustainability issues.
- **Holistic ESG Integration:** Financial institutions embedding sustainable finance into all aspects of their business can enhance overall performance and stakeholder trust.
- **Growth of Private Equity in Sustainability:** Private equity's increasing role in global investment portfolios provides an opportunity to drive sustainability, given their longer investment horizons and capital allocation efficiency.

"It is never too early to start integrating impact. No one does it well the first time. It is a journey. You start measuring what you can, and then the insights help you move forward and improve."

Grayson Bass, Founding Lab Manager, Smart Waterloo Region Innovation Lab

Actions

- **Integrate Sustainable M&A Practice:** Incorporate sustainability considerations into mergers and acquisitions to ensure long-term value creation and alignment with ESG goals.
- **Early Definition of Impact Criteria:** Clearly define impact criteria at the outset of investment processes to ensure alignment with sustainability objectives and measurable outcomes.
- **Focus Efforts on Fewer SDGs:** Target investment efforts on a select few SDGs to maximize impact, leveraging the interconnectedness of sustainability issues to achieve broader benefits.
- **Support Local Markets and Communities:** Invest in local markets and communities to drive sustainable development at the grassroots level, fostering economic growth and social well-being.
- **Engage Stakeholders in Decision-Making:** Involve beneficiaries in decision-making processes to ensure investments meet local needs and preferences, enhancing the effectiveness and acceptance of projects.
- **Conduct Due Diligence with a Local Lens:** Use local partners to perform due diligence, helping to mitigate risks and ensure investments are contextually appropriate and sustainable.

> **"We never ask anybody else to do something that we as a company are not doing ourselves."**
>
> *Hasan Askari, Managing Partner at K1 Investment Management*

- **Seek Partnerships with Local Equity Firms:** Form partnerships with local equity firms to leverage their expertise and networks, enhancing the success and impact of sustainable investments.
- **Embed Sustainable Finance in Business Philosophy:** Encourage financial institutions to integrate sustainability into their core values, operations, and customer experiences.

APPENDIX

Event Schedule

View all conference session recordings at www.togetherensemble.ca.

Masters of Ceremony
Leah Feor
PhD Candidate in Sustainability Management, University of Waterloo
Putri Cullinane
Undergraduate Student, School of Environment, Resources, and Sustainability, University of Waterloo

Tuesday May 28, 2024

9:00 AM – 9:40 AM

Conference Kick-Off, Land Acknowledgement, and Opening Remarks

- Elder Rodney Miller, Indigenous Knowledge Keeper, Six Nations
- Dr. Vivek Goel, President and Vice-Chancellor, University of Waterloo
- The Honourable Jenna Sudds, Minister of Families, Children and Social Development (video remarks)

9:40 AM – 10:30 AM

Building the Cities We Want – Keynote

- Helen Kerr, Co-President, Kerr Smith Design + Faculty of Environment, University of Waterloo

10:30 AM – 11:00 AM

Break

11:00 AM – 12:00 PM

The Future of Housing in Canada – Panel

- Mayor Dorothy McCabe, City of Waterloo
- Adrienne Pacini, Partner, SHS Consulting
- Sean Campbell, Executive Director, Union Co-operative
- Moderator: Helen Kerr, Co-President, Kerr Smith Design + Faculty of
- Environment, University of Waterloo

12:00 PM – 1:00 PM

Lunch

1:00 PM – 1:30 PM

A Case for Economic Reconciliation: Unlocking the Hidden Value of Indigenous Prosperity – Keynote

- Jean Paul Gladu, Principal at Mokwateh and former President of the Canadian Council for Aboriginal Business (online keynote)

1:30 PM – 2.30 PM

The Spectrum of Sustainable Investment: Balancing Fiduciary Duty with Environmental and Social Impact – Panel

- Brian Minns, Senior Managing Director of Responsible Investing at UPP
- Stéphanie Émond, VP and Chief Impact Officer at FinDev Canada
- Hasan Askari, Managing Partner at K1 Investment Management
- Gerhard Pries, Founder and former CEO of Sarona Asset Management
- Moderator: Majid Mirza, Founder and CEO, ESGTree

2:30 PM – 2:45 PM

Break

2:45 PM – 4:00 PM

B**reakout Workshops (Concurrent)**

Future Cities + Sustainable Finance Fireside Chat and Case-Study Conversation

- Facilitator: Shahzeb Irshad, Senior VP at ESGTree
- Janice Noronha, Founder & CEO of JLMN Group
- Graeme Blair, Director, RBC Sustainable Finance Group, Transaction Services at RBC

4:00 PM – 6:00 PM

Networking + Refreshments – Delta Hotel

APPENDIX

Wednesday May 29, 2024

9:00 AM – 9:15 AM

Opening Remarks

- Elizabeth Dove, Executive Director, UN Global Compact Network Canada

9:15 AM – 9:45 AM

Who's Responsible for Responsible AI: Managing ESG and Responsible AI in a rapidly changing world – Fireside Chat

- Majid Mirza, Founder and CEO, ESGTree
- Kevin Tuer, Chief Technology Officer, Communitech
- Mardi Witzel, Co-Founder and CEO, Polyalgorithm Machine Learning (PolyML)

9:45 AM – 10:45 AM

Integrating ESG From Seed to Scale: Is it Ever too Early to Integrate ESG? – Panel

- Moderator: Katie Turner, Independent Consultant, Gender Lens Investing
- Magali Lamyin, Managing Partner at Deetken Impact
- Tim Jackson, Board Member and Chair of the Investment Committee at Waterloo Region Community Foundation
- Samuel Akyianu, Managing Director at Mastercard Foundation Africa Growth Fund at MEDA
- Grayson Bass, Founding Lab Manager at Smart Waterloo Region Innovation Lab

10:45 AM – 11:00 AM

Break

11:00 AM – 12:00 PM

Power and Prediction: How Leaders Can Leverage Their Greatest Asset Right Now – Keynote

- Ajay Agrawal, Economist and Professor at the University of Toronto's Rotman School of Management + Founder of the Creative Destruction Lab

12:00 PM – 1:00 PM

Lunch

1:00 PM – 2:15 PM

Harnessing the Power of AI and Emerging Technologies for EcoInnovation – Panel

- Tyler Hamilton, Senior Director – Clean Technologies @ MaRS
- Salman Qadir, Associate Principal, Sustainability Venture Fund, BDC
- Keegan Pinto, Associate, Arctern Ventures
- Moderator: Alison Herr, Program Director, Evergreen

2:15 PM – 2:45 PM

Break

2:45 PM – 4:00 PM

Breakout Workshops (Concurrent)

AI & Cities + Eco-Innovation