Systemic Finance Opportunities Initiative

Catalyzing mainstream capital towards the SDGs

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Submitted by
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Project Description

The purpose of this consultation for the SDG Unit is to:

1. Synthesize baseline research about the status of sustainable finance;
2. Gauge current attitudes and views held by financial industry stakeholders regarding systemic transformation;
3. Contribute to Employment and Social Development Canada's goals around policy coherence as it pertains to the development of a National Strategy for the implementation of the Sustainable Development Goals;
4. And identify key opportunities for future research and convening.

A later phase of the project will also identify a roadmap of activities that could accelerate academic research, it's adoption in the capital markets, and collaboration between academic and financial communities towards achieving the goals.

These objectives directly contribute to the SDG Funding Programs goals by:

- Engaging stakeholders to provide input on how to mobilize financial investment for the greatest progress toward the SDGs.
- Building partnerships and networks of different partners and bridging academic and mainstream capital markets to attract and create new, more effective investment vehicles for the SDGs.
- Raising public awareness of, and support for, the 2030 Agenda through the publication and dissemination of the synthesis report.

Project Partners

Windfall Ecology Centre

Windfall Ecology Centre is a not-for-profit mission driven organization focused on re-powering communities to create lasting wealth in a carbon constrained 21st century. Working at the nexus of energy, water, food, and people, we research, design, and deliver innovative sustainability solutions. Our record of accomplishment includes achievements in public policy, residential energy conservation, renewable energy, electric mobility, water protection and leadership development. We build opportunities for youth to develop leadership skills into all our activities because helping young people find their place in the world is an important element in building sustainable communities.

Possibilian Ventures

Possibilian is an emerging manager harnessing research, data and networks to deploy capital toward systemic change. Our fund strategy includes a global, seed-stage investment fund for transformative ventures, and a series of systems focused early-stage venture funds. Systems focused funds provide unique opportunities to provoke and benefit from systems transformation.

SDSN Canada

SDSN Canada is part of a global movement to build a network of universities, colleges, and knowledge institutions working together to create practical solutions to achieve the SDGs.

Waterloo Global Science Initiative

Waterloo Global Science Initiative (WGSI) has been catalyzing collective action since 2009. WGSI creates the conditions for collective global action. We take on the world's most pressing challenges by bringing together brilliant minds and offering the time and space for unexpected connections to emerge.

Windfall ecology centre

Possibilian

WGSI Waterloo Global Science Initiative

Funded by Employment and Social Development Canada

Employment and Social Development Canada
Canada

> To expect the unexpected shows a thoroughly modern intellect
>
> — Oscar Wilde

Are we paying attention?

Canada emerged from the 20th century in an enviable position: a resource powerhouse with a strong and stable economy that could withstand the collapse of housing markets south of the border and the shocks and aftershocks of a global recession. Jean Boivin, Former Deputy Governor of the Bank of Canada, suggested in a 2011 speech about the recession that we " ... continue to learn from our experiences to ensure better prevention and, when necessary, a better cure."[1]

Sometimes, learning from the past is not enough. Change is coming at a faster and faster rate, fueled in part by tech disruption but also the uncertainty of climate disruption, growing inequality, eroding trust, and institutional vulnerability. The better cure may in fact be an investment in learning more about our uncertain future and building the scenarios and roadmaps that will unlock opportunities and enable system transformation.

Scenario development is not about predicting the future, but rather serves as a foundation for linking strategy with innovation, risk management, a strong public narrative and the cultivation of appropriate leadership. It can help to unfreeze rigid institutions and create the mindset for change leadership and proactive investment.

If we are not paying attention, our windows of opportunity will close with potentially catastrophic effect. The materiality of the risks are increasingly within investment horizons and careening awfully close to a Minsky moment, as Mark Carney, François Villeroy de Galhau and Frank Elderson warn in a recent opinion piece in The Guardian.

Many steps are now underway - underpinnings for a systems transformation toward sustainable finance which will in turn, help to accelerate total economic system transformation. In this report, we note key milestones in this journey, including:

- the system modelling efforts by International Panel on Climate Change (IPCC) and International Energy Agency (IEA) that underpin the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD);
- the emerging taxonomy initiative that will create a common classification system and language for sustainable finance;
- efforts to harmonize reporting initiatives and create common standards for adoption by regulators and stock exchanges;
- Key steps that have been taken to evaluate the Indigenous economy and capital flow to Indigenous-led projects that will be the backbone of their future prosperity.

1. Bank of Canada. (2011). The "Great Recession in Canada: Perception vs. Reality. https://www.bankofcanada.ca/2011/03/great-recession-canada-perception-reality/

We also note some big opportunities for national leadership on the global stage:

1. Canada can lead through best practice and exemplary implementation of the new standards.
2. Canada can leverage its academic and financial institutions to fully develop SDG-aligned scenario development to inform capital flow, infrastructure opportunities, economic activity, and municipal projects.
3. Canada can use sustainable finance as a tool to further Reconciliation with Indigenous peoples, helping to unlock the prosperity they've been denied.

Finally, we propose that Canada begin exploring the creation of a Global Centre for Scenario Development and the practical application of Canadian expertise in scenario development towards the most pressing SDGs for Canada. Canada is well positioned to map its capacity, coordinate a field of actors and identify the critical issues that would benefit immediately from scenario development – from gender lens investment to energy system transformation, food security, and Reconciliation – with both a local and global lenses for practical applications.

We believe that the financial community's role is central to Canada's implementation of the United Nations' 17 Sustainable Development Goals and a more peaceful and prosperous future for all. We are committed to catalyzing strategic action toward that effort through the creation of a working group for the creation of the Global Centre for Scenario Development.

Benchmarking the Landscape

Global perspectives

The all-of-society, global call to action represented by the United Nations' Sustainable Development Goals unites 193 countries worldwide in a common, actionable framework to end global poverty and hunger, ensure a sustainable balance between people and planet, and promote peaceful, inclusive societies. While altruistic in scope, the SDGs also represent a concerted effort to manage the compounding risks associated with the pace of social change, technology disruption and climate change.

Numerous efforts to understand the big picture have emerged over the past decade - from Thomas Homer-Dixon's The Upside of Down (2006) to Al Gore's The Future: Six Drivers of Global Change (2013) to Yuval Noah Harari's 21 Lessons for the 21st Century (2018).

We no longer have the luxury of time to examine and analyze these factors to create historically-based projections of what the future holds. In fact, the past no longer provides a reliable pattern for what will unfold next.

2015: A watershed year

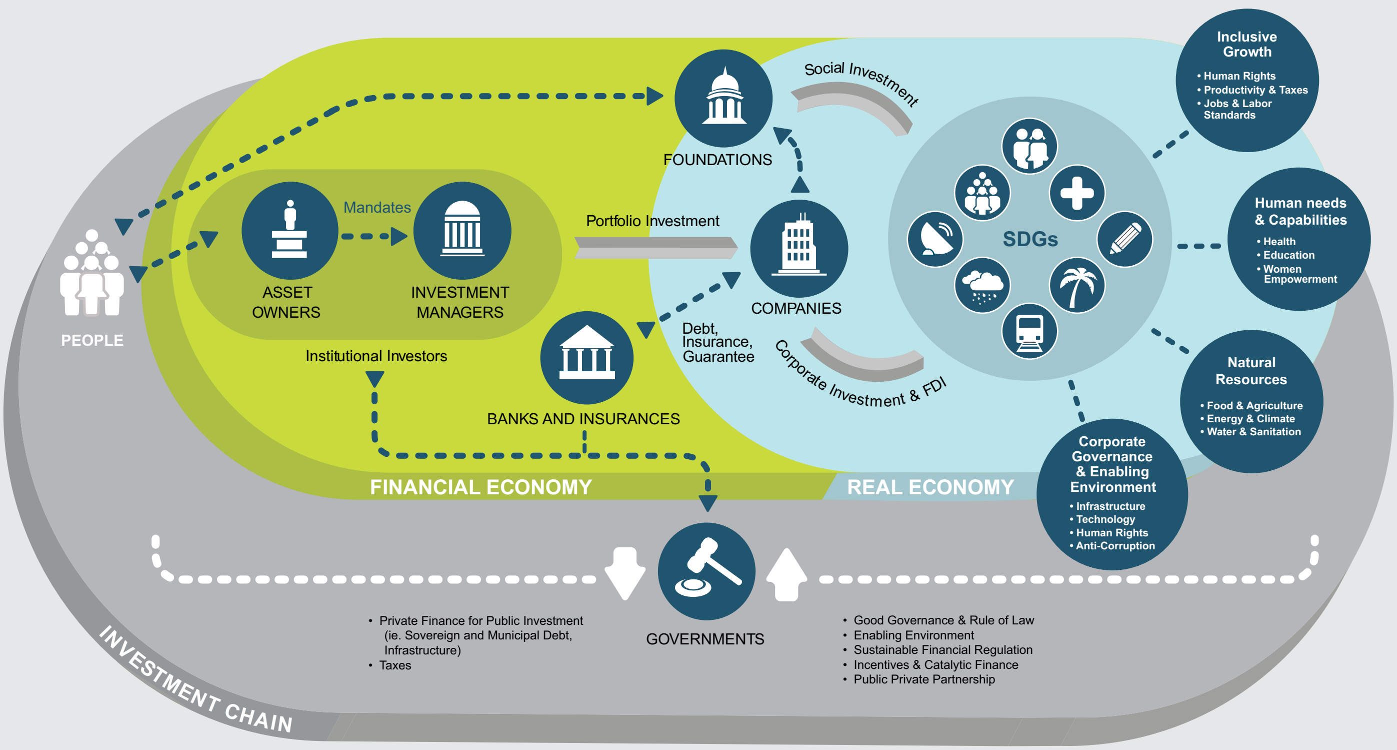
This is the challenge faced by the global financial industry as they begin to carve out strategies that better reflect the playbook for the century ahead. Their work was well underway before the UN's SDG announcement in September 2015 or the Paris Agreement emerging from COP 21 later the same year. Leading that work was the reinsurance industry, which acknowledged the sharp increase in economic damage caused by uninsured losses from natural disasters and the risk of cuts in sovereign credit ratings for the countries most at risk and called for government action in clear terms at the outset of COP21.

The United Nations Global Compact, together with KPMG International, identified four categories for the financial industry to address the SDGs through their SDG Industry Matrix for the Financial Services in 2015.[2] They highlighted:

- increasing financial inclusion for individuals, small and medium sized enterprises and governments;
- financing and insuring renewable energy and sustainable infrastructure;
- including sustainability risk analyses in financial decision making to incentivize customer behaviour and resilient nations; and,
- influencing corporate clients to address environmental, social and governance criteria in their businesses.

2. United Nations Global Compact and KPMG International. (2015). SDG Industry Matrix: Financial Services. https://www.unglobalcompact.org/docs/issues_doc/development/SDGMatrix_FinancialSvcs.pdf

Figure 1: Private Sector Investment and Sustainable Development[3]



3. UN Global Compact, UNCTAD, UNEPFI, PRI. (2015). Private Sector Investment and Sustainable Development. https://www.unglobalcompact.org/docs/issues_doc/development/SDGMatrix_FinancialSvcs.pdf

A timeline for financial tools & initiatives

1500 - 1300 BC	SRI	Socially Responsible Investing has been a priority of many cultures and was codified in Jewish law before the modern era. SRI focuses on achieving sustainable financial returns through investments that screen for longterm, social, environmental and governance criteria. Currently, USD 22.89 trillion[4] are held in SRI funds.
1997	GRI	Global Reporting Initiative Standards represent the global best practice for reporting on economic, environmental and social impacts and are independently governed by the Global Sustainability Standards Board.
2004	Ten Principles	The Global Compact's nine principles (1999) became ten[5] after the United Nations adopted the Convention Against Corruption in 2003. The principles are based on the following UN Conventions: the Universal Declaration of Human Rights, the 'International Labour Organizations Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.
2005	ESG	Environmental and Social Governance sets out the criteria for measuring the sustainability and ethical impact of an investment in a company or business with an eye on better understanding the future financial risks and returns.
2006	PRI	Principles for Responsible Investing is a framework of six voluntary investment principles that will better align investors with broader objectives of society.
2011	SASB	The Sustainability Accounting Standards Board develops and disseminates industry specific sustainability accounting standards and acts as a liaison between companies and capital markets to identify risks with the goal of improving capital flow in markets.
2015	TCFD	The Task Force on Climate-related Financial Disclosures takes a standardized, data-driven approach to considering the physical, liability and transition risks associated with climate change and sets criteria for effective financial disclosure across industries.

From 1992 to 2017: The Evolution of Sustainable Finance

full timeline of the evolution of Sustainable Finance (UNEP FI: 2017)

View online

4. Weber, O. (2018) The Financial Sector and the SDGs: Interconnections and Future Directions. https://www.cigionline.org/sites/default/files/documents/Paper%20No.201web.pdf

5. United Nations Global Compact. (2019). The Ten Principles of the UN Global Compact. https://www.unglobalcompact.org/what-is-gc/mission/principles

Challenges ahead

While the financial sector has clearly demonstrated leadership in creating the tools and resources for the private sector to navigate a shift in economic focus toward sustainability, many hurdles must still be cleared.

Raising awareness of the SDGs as a framework that aligns with existing tools is critical. Awareness, implementation and accountability remain gaps according to the Global Compact Network Canada (GCNC)'s 2018 SDG Survey, with only 13% of respondents taking all three into account.[6] PWC's SDG Reporting Challenge 2018 identifies that although 72% of companies now mention the SDGs in their annual or sustainability reports, only 19% of statements issued by CEOs or Chairs mention the SDGs and the overall quality of the reporting languishes at 2.71 out of a possible score of 5. It's clear that the SDGs have yet to move out of Corporate Sustainability Reporting (CSR) and into the heart of business strategy.[7]

Another red flag is the narrative around the business case for sustainability vs. the sustainability case for banking.[8] Are companies using the narrative to make a case for the sustainability of the business or sustainability of the planet? The true case for long-termism relies on a narrative and corresponding accountability framework that promotes planetary sustainability (aka the sustainability case for banking). A robust accountability framework has been slow to emerge and still needs further work to reduce information asymmetry and promote standards, a common taxonomy and enforcement. Overall, there remains a lack of coherence across funds, with decision-makers and leadership still focused on the certainty provided by short term actions and results.[9]

Information asymmetry

Some people in the market know more than others about the value and risks associated with specific products. This information asymmetry leads to a distorting effect where products can't be traded at their true value and incentive structures can go awry. If one party enters a transaction with less information, they might take on more risk or even act against their own interests. The classic example of this is George Akerlof's 1970 paper, “The Market for Lemons,” which uses the example of information asymmetry in a used car market, and for which he later earned a Nobel prize.[10] Signalling emerges in the market as a way to screen or differentiate between products when the risks associated with them are unclear. Scenario modelling is useful in helping to determine what signals are appropriate to reduce the information asymmetry, an important example being the scenarios produced by IPCC and the IEA to inform the Task Force on Climate-related Financial Disclosures (TCFD). These new disclosure standards are a powerful tool in reducing information asymmetry relating to risks associated with climate change.

6. Global Compact Network Canada. (2018). 2018 SDG Survey. https://globalcompact.ca/wp-content/uploads/publications/2018%20SDG%20Survey%20Report%20Final.pdf
7. PWC Global. (2018). SDG Reporting Challenge 2018. https://www.pwc.com/gx/en/services/sustainability/sustainable-development-goals/sdg-reporting-challenge-2018.html
8. Weber, Olaf and Blair Feltmate. 2016. Sustainable Banking: Managing the Social and Environmental Impact of Financial Institutions. Toronto, ON: University of Toronto Press.
9. Nohiria, Nitin. (2015). Long-term Visions Cut Short In Dominic Barton (Ed.), Perspectives on the Long Term (pp 37). https://www.fcltglobal.org/docs/default-source/publications/fclt_perspectives-on-the-long-term.pdf?sfvrsn=be19208c_2
10. The Economist. (2016). Economics Briefs: Six Big Ideas. https://www.economist.com/sites/default/files/econbriefs.pdf

Taxonomy: apples and oranges

Another way in which information asymmetry is reduced is through the development of common taxonomies which will in turn create a shared language within the financial system. A joint statement by the International Network of Financial Centres For Sustainability (FC4S),[11] released on the heels of a G7 meeting on sustainable finance in Halifax in September 2018, called for a global effort to create an internationally compatible set of taxonomies for sustainable finance guided by the following ten principles[12]:

- Scope
- Purpose
- Good practice
- Evidence
- Proportionality
- Mechanisms
- Dynamism
- Consequences
- Coordination
- Transparency

FC4S is convened by UN Environment and currently has 22 global members[13], including Toronto Finance International. Its goal is to improve the financial system's effectiveness in mobilizing capital for sustainable development.[14]

In 2018, the EU struck a Technical Expert Group on Sustainable Finance (TEG)[15] and held a series of expert workshops to assist the development of a unified classification system for sustainable economic activity. The system passed a first reading in parliament in mid-March 2019. The taxonomy proposal must:

- contribute substantially to one of the six EU environmental objectives;
- not do significant harm to any of the other five EU environmental objectives;
- comply with minimum social safeguards;
- comply with technical screening criteria.

The same group is tasked with developing a European Green Bond Standard that will be linked to the taxonomy.

11. FC4S. (2018). World's Leading Financial Centres Urge Compatibility, Connectivity Between New Standards For Sustainable Finance. https://www.fc4s.org/worlds-leading-financial-centres-u
12. FC4S. (2018). Building Shared Language for Green and Sustainable Finance - Expert Briefing on the Development of Taxonomies. https://docs.wixstatic.com/ugd/eb1f0b_1372ecb64c5b4ea0bff134b4484e45fb.pdf
13. UN Environment. (2019). Luxembourg, UN Environment Sign Deal to Accelerate Sustainable Finance. http://unepinquiry.org/inquirynews/
14. UN Environment. (2019). Leading Financial Centres Gather To Boost Sustainable Finance. http://unepinquiry.org/news/leading-financial-centres-gather-to-boost-sustainable-finance/
15. European Commission. (2019). Technical expert group on sustainable finance (TEG) - Overview of outreach plans. https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-teg-outreach-plans_en.pdf

Standards

The International Integrated Reporting Council (IIRC)'s vision[16] is to align capital allocation and corporate behaviour to the wider goals of financial stability and sustainable development through the cycle of integrated reporting and thinking.

The Better Alignment Project[17], run by the Corporate Reporting Dialogue, which is an initiative of the International Reporting Council, is a two-year standards mapping project aimed at bringing coherence to corporate reporting and disclosure practices. It focuses on the alignment of Climate Disclosure Project, the Climate Disclosure Standards Board, the Global Reporting Initiative, the International Integrated Reporting Council and the Sustainable Accounting Standards Board. It follows the standards alignment recommendations set-out by the Task Force for Climate-related Financial Disclosures and involves a high degree of involvement from the global stakeholder community, with roundtables and feedback processes running throughout 2019. Initial findings will be published in September.

The project may not lead to fewer standards since many of the existing standards boards drive specific outcomes for different audiences. However, the alignment of standards and coherence between them ensures that the different frameworks are not at cross-purposes. Most importantly, this process will help define how non-financial information becomes material over the long-term by ensuring that the information flow is clear and comparable with analysis on short, medium and long term risks.

The Corporate Reporting Dialogue is composed of the following organizations: Climate Disclosure Project, Climate Disclosure Standards Board, Financial Accounting Standards Board, Global Reporting Initiative, International Accounting Standards Board, International Integrated Reporting Council, International Organization for Standardization, Sustainability Accounting Standards Board.

16. Integrated Reporting. (2019). Frequently Asked Questions. https://integratedreporting.org/faqs/
17. Corporate Reporting Dialogue. (2019). Better Alignment Project. https://corporatereportingdialogue.com/better-alignment-project/

Enforcement

Regulators drive what gets counted and reported. Overall, regulators play an important role in signalling what is required from the financial sector and the expectations around reporting. Their coordinated ability to provide clarity is fundamental in the shift to sustainable finance; the more distributed the system, the more cross-jurisdictional coordination is required. The International Network for Greening the Financial System is one network that works toward global coordination. France has codified disclosure of climate change and physical risks through Article 173 of the French Energy Transition Law.[18] Similar acts could help codify sustainability objectives and provide clear signals to jurisdictionally responsible entities. Without these signals, priorities will align elsewhere.

Stock Exchanges also play an important role in driving compliance. The Toronto Stock Exchange and TSX Venture Exchange recently joined the Sustainable Stock Exchanges Initiative (SSE) which is co-organized by the United Nations Conference on Trade and Development (UNCTAD) and the UN Global Compact, UNEP-FI and PRI. The SSE provides a ranking of more than 4,300 companies worldwide and provides analysis on their performance against the following seven sustainability indicators[19]:

- Energy use
- Carbon emissions (GHG)
- Water use
- Waster generation
- Rate of injuries and fatalities
- Rate of employee turnover
- Percentage of contractors or temporary staff

The Nasdaq Helsinki tops the charts for its disclosure rates. The London Stock exchange, ranked 12th, boasts a 97% disclosure rate for GHGs because of a 2013 update to the UK Companies Act which requires GHG reporting for large, UK-incorporated companies.[20]

18. UNEP-FI. (2016). French Energy Transition Law: Global Investor Briefing. https://www.unepfi.org/fileadmin/documents/PRI-FrenchEnergyTransitionLaw.pdf
19. SSE. (2018). 2018 Report on Progress: Annex 3. Detailed Ranking Methodology. https://www.corporateknights.com/wp-content/uploads/2018/11/Sustainable-Stock-Exchange-2018-Ranking-Methodology.pdf
20. Corporate Knights. (2018). Nasdaq Helsinki leads ranking of world's stock exchanges on sustainability disclosure. https://www.corporateknights.com/reports/2018-world-stock-exchanges/helsinki-leads-ranking-worlds-stock-exchanges-sustainability-disclosure-15414364/

The Canadian landscape

Market appetite

Canada stands apart as the only nation in which investor demand is outstripping available ESG financing with 86.5% of investors holding ESG investments and 84.7% of issuers offering ESG financing. Comparatively, Canadian investors and issuers see fewer barriers to increasing ESG commitments than their global counterparts.[21] Impact investment is also gaining traction with $14.75 billion invested in Canada as of December 2017, representing 81% growth over a two year period, and leading to a high degree of optimism about high growth among investors.[22] In addition, green bond issuance in Canada exceeded the $50B mark annually in fiscal 2017/2018. Global green bond issuance is expected to reach $1 trillion annually by 2020.[23]

Adoption of standards & disclosure practices

The Expert Panel on Sustainable Finance found that TCFD has catalyzed broad awareness of climate-related risks and opportunities but that compliance remains voluntary whereas other jurisdictions, like China, France and the EU have made compliance mandatory. The Panel also notes that Canada should invest in capacity building for the support ecosystem of auditors, accountants, lawyers and information providers, and ensure that policy and regulatory signals are clear and aligned before any move toward adopting mandatory compliance.[24] Currently, the regulatory system in Canada does not look favourably on forward-looking statements. This approach requires a re-think in order to reframe away from short-term economic outlooks and reinforce the prioritization of TCFD recommendations.

Discussions at Globe Capital (Toronto: February 27 and 28) and Sustainable Investment Forum Europe (Paris: March 2019) both included a focus on sustainability laggards and efforts to incentivize disclosure and transition away from carbon intense activities. Many Canadian companies associated with resource extraction fall in this category. Some pension funds reported that they prefer to engage companies in their portfolios in conversation about sustainability rather than exclude them, in order to gauge their responsiveness to compliance measures. Once engaged, these companies have the greatest potential for improvement. The Expert Panel identifies Canada's unique position in this respect; its financial sector is well positioned to lead “transition lending” and to develop the relevant products and knowledge centre to support it.

The Expert Panel makes no recommendations specific to the SDGs but notes efforts by Sweden and Italy to deliberately integrate the SDGs with current green financing initiatives. It does identify the Office of the Superintendent of Financial Institutions (OSFI) and the Bank of Canada as key operators responsible for systemic stability and probable influencers for the translation of expectations around sustainability to the country's regulators. Of note, Mark Carney, former Bank of Canada Governor and current Bank of England Governor, has been instrumental in providing global leadership on TCFD and the inclusion of climate-related risk in financial decision-making.

21. HSBC Sustainable Financing and ESG Investing report (2018). https://www.sustainablefinance.hsbc.com/reports/sustainable-financing-and-esg-investing-report
22. RiA. (2018). 2018 Canadian Impact Investment Trends Report. https://www.riacanada.ca/research/2018-impact-trends-report/
23. Corporate Knights. (2017). Sizing the Potential Green Bonk Market in Canada. https://www.corporateknights.com/wp-content/uploads/2017/04/GreenbondsPotential_Canada.pdf
24. Government of Canada. (2018). Interim Report of the Expert Panel on Sustainable Finance. http://publications.gc.ca/collections/collection_2018/eccc/En4-350-1-2018-eng.pdf

Leadership

Canada's pension plans are very well positioned to lead by example. By their very nature, they align with long-termism and can foster a leadership culture which espouses long-termist values. However, data quality and analysis remain problematic. Most analysis relies on historical data and trends and much of it is proprietary to each company which may work for trading equities which are more liquid and easier to reallocate in the short-term. Pension funds have significant investments in real assets and the real economy and benefit more directly from better, long-term scenario analysis. Alecta, a Swedish provider of occupational pensions, used IEA and IPCC data to perform their own, in-house scenario modelling and analysis. The result was a series of case studies that stress-tested different climate scenarios across its entire portfolio.[25] What's missing overall is a concerted effort to pool resources and share insights from scenario development for the benefit of the whole sector. The current, fragmented approach is highly proprietary while a collective approach to scenario development would create a stronger, more robust foundation and information flow for the industry while not limiting individual organizational analyses and product development.

Canada stands to benefit greatly from prioritizing sustainability in its development of infrastructure projects. From P3s to contracting and procurement, sustainability can and should be intentionally designed as a core element of projects from conception to the end of lifecycle. Canada is regarded globally as an ideal country for P3s due to the strong regulatory ecosystem and clear rules around contracting and risk assignment. Judgement calls on aging infrastructure rely on analysis of maintenance costs vs. capital costs and decisions are often made based on who owns the asset and who benefits from which approach. P3s clearly assign risk and can prioritize a “return on resilience” performance measure.[26] Likewise, contract innovation within infrastructure projects can help capital flow all the way upstream into supplier relationships and the communities in which they are located. The Canadian Infrastructure Bank could and should be a leader in this practice.

25. Alecta. (2019). Annual Report and Sustainability Report 2018. https://www.alecta.se/globalassets/dokument/finansiella-rapporter/in-english/annual-reports/alecta-annual-report-and-sustainability-report-2018.pdf
26. World Bank. (2018). Addressing the risks from climate change in performance-based contracts. http://blogs.worldbank.org/transport/addressing-risks-climate-change-performance-based-contracts
27. TD Economics. (2015). Special Report: The Long and Winding Road Towards Aboriginal Economic Prosperity. https://www.ccab.com/wp-content/uploads/2016/11/TD-AboriginalEconomicProsperity.pdf
28. Davis, C. (2019). Personal interview with Julie Wright.
29. Hilton, C. (2019). Personal interview with Julie Wright.

Tools for Reconciliation

Sustainable finance and infrastructure projects can be powerful tools for reconciliation. The current Indigenous economy in Canada was valued at approximately $32B in 2016[27] and Indigenomics, an Indigenous-led economics consulting firm, estimates that it could reach $100B with the proper incentives. The undercapitalization of First Nations, Metis and Inuit communities is staggering with long-lasting implications for all of Canada. In First Nations and Metis communities across Canada, the infrastructure gap alone is estimated at $40B, with another $20B gap across Inuit communities.[28] The Indian Act directly limits sustainability initiatives by constraining capital flow to annual cycles. The United Nations Declaration for the Rights of Indigenous Peoples addresses this short-termism by providing a legal environment and pathway for financial inclusion, long-term certainty, autonomy, and self-determination.

An Indigenous infrastructure bank could be a pathway to capitalizing projects across these communities.[29] The Indigenomics By Design Conference to be held June 24-26, 2019 in Vancouver will begin mapping the pathway to the $100B Indigenous economy by convening actors from the related sectors in Canada and is an important first step in aligning a vision of prosperity with possible pathways of action.

A startling $9B in capital is held by more than 200 Indigenous trusts across Canada.[30] And yet it's not invested in Indigenous infrastructure projects. There are currently 95 renewable energy infrastructure projects underway in Indigenous communities representing more than $28B in capital investments with return rates of 9-10%.[31] These projects can and should benefit Indigenous communities through contracts that clearly articulate bid processes, risk assignment, and procurement protocols, and employment opportunities that prioritize community-led lifecycle operations and maintenance. This opportunity requires a clear narrative to attract Bay Street finance, but as more P3 projects reach completion in Indigenous communities, the supporting case studies become plentiful.

North Capital 35 is an Inuit-led organization focused on raising $100M for infrastructure projects, ranging from renewable energy and telecom to transportation, with the goal of narrowing the magnitude of the infrastructure gap. Access to capital remains a large barrier for most Indigenous-led projects and governments have a role to play in helping derisk the financial playing field to close the capital gap. The Wataynikaneyap Transmission Project in Northern Ontario is often cited as an example of how government innovation can create financial certainty for projects with deep socioeconomic and environmental benefits.

The National Aboriginal Economic Development Board made a series of recommendations in a report released in June 2017 and noted that an additional $83.3B in capital would be required for the First Nation and Inuit business community to operate at the same level as their Canadian counterparts. The report notes that comparatively, a Canadian community's $1M investment in annual revenues to finance $6M in infrastructure spending would attract another $5M in investment but for a First Nation community, that capital is severely limited with the same $1M only financing $2M in infrastructure and attracting $1.5M in investment. Furthermore, facilitating investment on First Nations lands costs four to six times what it does on non-First Nations lands.

27. TD Economics. (2015). Special Report: The Long and Winding Road Towards Aboriginal Economic Prosperity. https://www.ccab.com/wp-content/uploads/2016/11/TD-AboriginalEconomicProsperity.pdf
28. Davis, C. (2019). Personal interview with Julie Wright.
29. Hilton, C. (2019). Personal interview with Julie Wright.
30. Government of Canada. (2019). https://www.aadnc-aandc.gc.ca/eng/1445002892771/1445002960229#06
31. Davis, C. (2015). Personal interview with Julie Wright.

Insights & Opportunities

Mobilizing data & research

Canada is not effectively mobilizing data and research in the service of sustainable finance and there is currently a time lag on how research is integrated into capital markets.

- Canada should apply an SDG lens to its information economics ecosystem with the objective of identifying transformative parameters, knock-on effects and catalytic processes.
- Investment in this ecosystem should include a centre for scenario analysis that models system transitions and provides robust, well-founded forward-looking insights and underlying data to policy makers and capital markets participants.
- Information sharing with Indigenous communities should be prioritized in order to create more favourable investment conditions.
- Canada should consider how transition-lending could help carbon and resource-intensive companies adapt to new market conditions and meet new sustainability targets.

Investing in education & capacity

Canada's financial sector needs to invest in education and capacity building in order to unfreeze attitudes and mindsets about sustainable finance. GIC, Singapore's sovereign wealth fund, identified five areas of focus[32] that can lead to a shift in mindset and culture in finance organizations:

- investment philosophy
- governance framework
- investment mandate
- organizational practices, and
- communication

GIC recommends that organizations should be encouraged to update their codes of conduct to integrate the SDGs and reflect the UNEP FI Positive Impact Manifesto, PRI Montreal Pledge, and the Equator Principles.

32. Lim, C.K. (2015).GIC's Long-Term View in Dominic Barton (Ed.), Perspectives on the Long Term (pp 76). https://www.fcltglobal.org/docs/default-source/publications/fclt_perspectives-on-the-long-term.pdf?sfvrsn=be19208c_2

Creating rigorous accountability & regulation

Fiduciary capitalism and the shift to sustainable finance won't be achieved through education alone; it must also be incentivized to drive behaviour to long-termism. Canada could do the following to enable the conditions for this shift:

- Support integrated reporting initiatives, education on the emerging taxonomy and classification system, and clarify expectations regarding compliance.
- Reduce information asymmetry in markets by making disclosure a requirement:
  - Encourage the Office of the Superintendent of Financial Institutions (OSFI) and the Bank of Canada to work with provincial and territorial regulatory bodies to develop a coherent approach to sustainability requirements and codify in legislation;
  - Require TCFD compliance at the stock exchange, per the SSE.
- Integrate the SDGs into best practices and contracting obligations at the Canadian Infrastructure Bank.

Communication & engagement

Canada needs to create a clear, opportunity-based narrative about sustainable finance and the risks associated with business-as-usual. The current approach to sustainable finance is reactive. This sentiment was conveyed during interviews and sessions at both the GLOBE and Sustainable Investment Forums, with emphasis placed on the fiduciary duties of boards and the need to consider total impact, not just the bottom line. Blackrock CEO Larry Fink outlines a communications strategy[33] to fight short-termism and says that investors want:

- a framework that details the strategy, benchmarks, milestones and metrics for performance
- clear articulation of the risks
- proactive communication about the strategy from leadership
- clear prose in reports rather than hiding behind numbers
- clear ownership of mistakes and relevant course correction

33. Fink, L. (2015). Our Gambling Culture in Dominic Barton (Ed.), Perspectives on the Long Term (pp 10). https://www.fcltglobal.org/docs/default-source/publications/fclt_perspectives-on-the-long-term.pdf?sfvrsn=be19208c_2

Call to Action

A role for Scenario Development

Scenario development is an established practice that has been employed throughout the 20th century to identify risks and opportunities associated with a set of changing conditions in a given field. It has the potential to deliver transformational insights. For example, the scenario modelling by the IPCC and IEA has been foundational to the TCFD recommendations and the Shell Scenarios emerged out of Royal Dutch Shell's long-standing effort to better understand the future. The OECD includes scenarios in its Schooling for Tomorrow Knowledge Bank and describes the methodologies and characteristics associated with high quality scenario work. Scenario work is common practice within finance, from the basic high-low-expected scenario analyses in financial models, to projecting credit risk associated with state actors, to identifying potentially stranded or underutilized assets in pension fund holdings.

However, outside of the IPCC and IEA work on climate change, very little has emerged relating to the SDGs.

Active users of scenario analyses recognize three things:

1. The better the quality of the data and resulting scenarios, the more reliable and trusted they are.
2. There are few Royal Dutch Shells: most organizations do not have in-house capacity and rely on external data sources and scenario analysis (IEA, IPCC, etc.).
3. High quality scenario analysis emerges through collaboration and shared knowledge, which doesn't compromise proprietary strategies or competitive advantages.

As the SDGs gain traction across an increasingly broad swath of society and the economy, it would be valuable to create sets of well developed global scenarios that organizations, industries, and nations could use to inform their own assessments and strategies. When focusing analyses on long-term, complex issues, there is no end to the number of scenarios, or iterations of scenarios and supporting data. A long-term approach is required to marshall the expertise and resources required. SDG scenario work can be shared and has value for a broad set of actors as participants, contributors and financial backers but requires an organizing force in order to initiate and facilitate the development of many scenarios in parallel.

As there are few facilitators of scenario development like this, there is an opportunity for Canada to create such an initiative. Canada's reputation as a neutral global facilitator, its established and well respected financial sector (in particular the pension funds who are doing this work already), and its academic leadership (Canadas universities dominate the Times Higher Education University Impact rankings) all point to an existing ecosystem of capable actors.

The vision

This initiative could be envisioned as a 'Global Centre for Scenario Development'. It could begin with prototyping a scenario development process that would produce a set of scenarios with risk, impact, intervention roadmaps, and adoption/application toolkits for key critical issues for Canada (e.g. energy/food security/indigenous reconciliation/gender equality). It could be catalysed with a core operating grant from the SDG Unit that would enable it to raise scenario development funding around each of the scenarios from other government agencies, financial actors, and the corporate sector. The work of this centre could also directly support scenario development practitioners within existing organizations — deepening a pan-sector, network-style approach; investing in the capacity to adopt and apply scenarios; and creating direct sponsorship opportunities for large multinationals and institutions.

A first step toward this vision might be to create an advisory workshop and convene actors interested in the opportunity — the SDG Unit, leading academics, representatives from sustainable finance and social finance, and Policy Horizons Canada — to clearly frame issues of broad interest that could draw in larger, global actors. The likely outcome of such a workshop would be a proposal outlining a pathway to initiating a pilot project for work on one of the issues.

We welcome further discussion on this vision as well as introductions to other potential collaborators.

Resources

System modelling efforts

Deep Decarbonization Pathways
This case study inspired by principles emerging from the analysis of different low emission scenarios in the context of the French Debate on Energy Transition (2012–14) and influenced by deep emissions reduction work from California (Williams et al. 2012), can be useful for the design of low emissions development strategies consistent with global cumulative emissions targets at the global, national, regional, city, and sectoral levels.

Framework for Strategic Sustainable Development
The purpose of this paper is to give a comprehensive and cohesive description of the most recent version of the Framework for Strategic Sustainable Development (FSSD), and also to describe and discuss the overall method for developing the FSSD, elaborate on the general rational for and general benefits of a framework of this type, and validate benefits of the FSSD through examples of its application. The purpose is also to point to pertinent future work.

Natural Step
The Natural Step provides a clear and simple definition of sustainability for everyone. This creates a shared language so that we may work together for effective and desirable change. When combined with well-tested processes and tools to facilitate action we can more quickly achieve true sustainability together.

The Future We Dont Want
This Technical Report highlights the data analysis and case studies developed by the Urban Climate Change Research Network for this project. It serves as a foundation for building narratives and key communication tools around global impacts of climate change on cities and their responses that will serve as an inspiration for other cities looking to build their own resilience plans.

Tools

SCP Hotspots Analysis
The Hotspot Analysis Tool for Sustainable Consumption and Production (SCP-HAT) was commissioned by the Life Cycle Initiative together with the One Planet Network and the International Resource Panel. The tool was developed by WU Vienna, in collaboration with CSIRO kindly supported by KGM & Associates who provided the Eora database.

2° Investing Initiative Transition Monitor
This website allows users to measure the alignment of their listed equity and corporate bonds portfolios across key transition sectors and technologies. Users can access the online tool under the banner 'Participate' and find background information about the hosts of the tool, as well as responses to frequently asked questions and publications on 2°C scenario analysis.

Earth Security Group Global Dashboard
Earth Security's Global Dashboard ™ brings together all the insight you need to efficiently manage and report on social and environmental impact on a global scale.

Sustainable Project Appraisal Routine (SPeAR)
SPeAR® was developed by Arup in 2000 based on the UK Sustainable Development Indicators from 'Quality of Life Counts', EU and UN indicator sets and the Global Reporting Initiative (GRI) indicators. A 2011 review made the tool more flexible and internationally-applicable, and updated SPeAR® to take account of emerging sustainability issues. The software now takes into account indicators such as those from the Organisation for Economic Co-operation and Development and rating tools including LEED®, BREEAM and CEEQUAL.

Vivid Economics
We leverage a suite of proprietary analytic tools, and a broad expertise in macro and sector level modelling, econometrics, spatial modelling, market surveys, game theory, and behavioural economics. We perform first-of-a-kind analyses and enjoy working with clients who are keen to push boundaries.

Carbon Delta
Aligned with the TCFD recommendations Carbon Delta provides true insight into how climate change is affecting the future business model and operations of companies. The big data software model is highly scalable and currently covers 22,000 companies linked to 60,000 investable securities.

The Climate Service
We use world-class science and technology to help you measure, monitor, and manage financial impacts of climate on your business and your investments.

Scenario Planning Toolkit
The Scenario Planning Toolkit is designed to help transportation planners in any organization design, plan, and run a Scenario Planning Workshop. There are two types of material contained here: Guidebooks and Workshop Collateral.

Reports

Interim Report of the Expert Panel on Sustainable Finance - Government of Canada
Canada's Ministers of Environment and Climate Change (ECCC), and Finance appointed the Expert Panel on Sustainable Finance to engage a wide range of stakeholders on opportunities and challenges relating to sustainable finance and climate-related risk disclosures, and to recommend next steps for the Government of Canada to consider in promoting low carbon, clean economic growth in Canada.

The Financial Sector and the SDGs: Interconnections and Future Directions - Olaf Weber
This paper mainly discusses the banking industry, including public and multilateral development banks. A discussion of other financial industry players with regard to the SDGs, such as insurance companies, would go beyond the scope of this paper.

Capitalizing on Sustainable Finance: A Growth Opportunity for Torontos Financial Sector - Toronto Finance International
This report seeks to assess the opportunity for Toronto to develop a leading global hub for sustainable finance. As North America's second largest financial centre, Toronto is well positioned to develop and expand expertise and talent in sustainable finance. Report commissioned by Toronto Finance International and prepared by EY and Corporate Knights.

UNEP FI Banking Principles
Members of the initiative include: Access Bank, Arab African International Bank, Banco Pichincha, Banorte, Barclays, BBVA, BNP Paribas, Bradesco, Commercial International Bank, First Rand, Garanti Bank, Golomt Bank, Hana Financial Group, Industrial and Commercial Bank of China, ING, KCB Group, Land Bank, Nordea, Piraeus Bank, Santander, Shinhan Financial Group, Societe Generale, Standard Bank, Triodos Bank, Westpac Group and YES Bank.

Fiduciary Duty in the 21st Century: Canada Roadmap
The Canada roadmap was developed through extensive industry consultation and sets out recommendations in four categories: regulatory action, stewardship, corporate reporting and investor education.

From the Stockholder to the Stakeholder: How Sustainability Can Dive Financial Outperformance
This report aims to give the interested practitioner an overview of the current research on ESG and ultimately demonstrates that responsibility and profitability are not incompatible, but in fact wholly complementary. When investors and asset owners replace the question “how much return?” with “how much sustainable return?”, then they have evolved from a stockholder to a stakeholder.

Perspectives on the Long Term: Building a Stronger Foundation for Tomorrow
We believe the world is approaching a tipping point. The memory of a global financial system on the brink of meltdown is still fresh. Now, a consensus is growing that in a globalized, digitized world, our approach to capitalism must evolve if individual savers are to have the confidence that their investments will grow steadily enough to fund a life that includes a home, an education for their children, and a reasonable retirement. We hope that the work of FCLT, of which these essays are a part, will help point the way to building a stronger, more sustainable capitalism for the 21st century.

SDG Industry Matrix: Financial Services
The SDG Industry Matrix aims to inspire and inform greater private sector action to drive inclusive, sustainable prosperity. Through the lens of “shared value” the private sector can identify opportunity in addressing social and environmental challenges.

Building a Competitive First Nation Investment Climate - Tulo Centre of Indigenous Economics
This open text book can be used as a resource on how to create the administrative, fiscal and legal framework to support markets on First Nations and in some cases tribal lands.

APPENDIX: Interviews

The project partners wish to thank the representatives from the following organizations who shared their insights with us through telephone interviews and during presentations, Q&As, and conversations at GLOBE Capital Forum and Sustainable Investment Forum Europe as we prepared this brief.

- 2 Degree Investing Initiative
- Alecta
- Allianz Global Investors
- Amundi
- AP2
- Arup
- BNP Paribas
- Blended Value
- Bloomberg NEF
- Brookings Institution
- Caisse des Depot
- Candriam
- CalPERS
- CDG Capital S.A.
- Centre for Development Results
- Chartered Professional Accountants of Canada
- CSA Group
- Federation of Canadian Municipalities
- FISMA, European Commission
- Fitch Ratings
- Fonds de Réserve pour les Retraites
- Future-Fit
- Generate Capital
- Lund University
- NN Investment Partners
- North 35 Capital
- Northern Trust Asset Management
- Ontario Teachers' Pension Plan
- Publica
- Riverside Capital Advisory
- Royal Bank of Canada
- Social Capital Partners
- SASB
- SRI-Connect
- Stanford Global Projects Centre
- The Indigenomics Institute
- Total Impact Capital
- UNEP FI
- York University
- University of Waterloo