

IVEY BSV CENTRE MISSION AND STRATEGY STATEMENT

EXECUTIVE SUMMARY

Ivey Business School's purpose is to inspire leaders for a sustainable and prosperous world. Within Ivey, the Centre for Building Sustainable Value (BSV) is the School's centre of excellence in sustainability with a two-decade track record of leadership in research and teaching.

The BSV Centre envisions a Canadian economy that bridges prosperity and sustainability, where production and consumption systems *regenerate* society and nature by leveraging their symbiotic relationships. To achieve such a vision, our efforts begin with Canada's agri-food system — where the need for transformation is urgent and more important than ever. While the system is one of the most economically efficient in the world, the way we produce and consume food is unsustainable. We are generating an enormous amount of greenhouse gas emissions, destroying ecosystems, and wasting vast quantities of resources while millions experience food insecurity.

We need a new food system that delivers universal access to affordable, nutritious food produced within the ecological limits of the planet. Canada can be a leader in this transition, but systemic change is required to make that a reality.

The BSV Centre's mission is to strengthen the capacity of change-seekers across sectors to build thriving communities and co-create effective transition pathways to a regenerative future.

Currently, a range of efforts are making progress across the Canadian agri-food system, from grassroots efforts to major national initiatives. However, the pace and scale of this change is insufficient. We see three key barriers that need to be addressed to accelerate systemic change, that Ivey and the BSV Centre have the tools and capabilities to act on now:

- **Poor Connectivity.** Farmers may be connected through digital platforms, but they struggle to work together effectively because they compete for land and resources, and operate in siloed value chains. As a result, they struggle to collaborate and share knowledge regionally.
- Concentrated Power Structures. The centralized supply chains and concentrated power structures of the contemporary food system do not encourage sustainable food production, and the ideal economics of sustainable food production are yet to be realized.
- **Efficiency Mindset.** The current business mindset prioritizes short-term efficiency and profit. As a result, many innovations fail to deliver long-term societal impact, and instead often perpetuate systems that are misaligned with the well-being of people and the planet.

Tackling these barriers requires not only changing practices but also understanding and challenging underlying institutions and widespread management beliefs and principles.

The BSV Centre, with its unique interdisciplinary expertise, is pioneering innovative approaches to engage and strengthen systems change-makers to overcome these barriers, while enabling them to take new models and solutions to scale. Instead of focusing on how large players can incrementally change their practices, we study and catalyze the work of viable "outliers", defined as those change-making organizations that have been successful at pursuing radically new ways of producing and distributing food, sustainably.

The BSV Centre is taking a radical approach to cultivating system-wide change, but with a focus on impact at scale. We are committed to understanding the shifts needed in the business paradigms within Canada's agrifood system, working with communities of change-makers and exploring both bottom-up and top-down mechanisms of systems change. These communities are key to transformation, especially when they shape new business models and solutions that are also adoptable by larger existing players who are truly motivated for a more sustainable system.

We are actioning this approach through three impact-focused Lighthouse Projects:

- 1. Collective Action Program for Sustainable Agriculture. Developing inclusive and regenerative communities of practices among farmers in specific regions, a key mechanism to improve the economic sustainability of agroecology at scale.
- Agrifood System Transformation Pathways Initiative. Mobilizing a change-ready group of leading companies to co-create procurement and financing frameworks that accelerate progress towards a desirable future Canadian agri-food system.
- 3. "Regenerator" Sustainable Entrepreneurship Accelerator. Equipping nascent entrepreneurs with systems thinking tools that help to successfully accelerate their economic growth and positive contributions to regional communities and nature through eco-effective solutions

These Lighthouse Projects will deliver impactful outcomes by motivating and enabling farmers and businesses across the agri-food system and leveraging Ivey's key areas of expertise: shifting decision-making principles, business strategies, operations, and collaborative relationships toward a regenerative future.

Each Lighthouse Project is designed to tackle a specific barrier to systemic change, be synergistic in nature (where one initiative enables another), and be replicable across the country. The BSV Centre has already started building a network of partners, across academia and the private sector, who can scale its efforts in a decentralized fashion. The key insights from this work can be applied to support system transitions in other sectors of the economy, too.

More broadly, the BSV Centre is further enabling system change through a wider portfolio of supporting projects and initiatives:

Agri-food system initiatives. We are contributing to system change initiatives led by others, including
the 100% Great Lakes Fish Initiative, led by the Great Lakes Governors & Premiers (GLGP) and focused
on upcycling food waste from local fisheries, and the 'Omics to Close the Loop' project, led by

Université de Montréal and INRS, with the funding support of Genomics Canada, and focused on advancing the ecological and economic potential of urban food systems.

- Future of Agri-food Event Series. This high-visibility event series, organized by the BSV Centre, is convening key Canadian thought leaders to explore Canada's role in the future of the agri-food system and the key opportunities and challenges facing the sector.
- Impact Labs. The BSV Centre supports four cross-cutting impact labs focused on key sustainability agendas: sustainable finance, circular economy, sustainable innovation, and net zero. While these labs have a broad mandate, they have led key projects that directly support the Centre's focus on agrifood, including work on regenerative agriculture, conservation finance, climate-smart circularity in the food system, soil health, reducing scope 3 emissions in value chains, and tackling corporate greenwashing.

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VISION, MISSION AND IMPACT FRAMEWORK OF THE IVEY BSV CENTRE

Polycrises of climate change, biodiversity loss, and widespread inequity are interrelated and defining features of our times. They represent existential challenges to human society. Despite decades of global, national and local level collaboration efforts to problem solve, these challenges remain as urgent as ever. Solutions require making major changes in the key sociotechnical systems (e.g., energy, food, mobility) that shape our economies and societies.

Shifting whole systems is highly complex because the climate-biodiversity-equity crises represent "wicked problems": interconnected and interdependent issues, affecting and being affected by diverse stakeholder groups, with conflicting agendas and no shared understanding of problems and solutions (Kossoff & Irwin, 2022). This phenomenon has also been called "Collective Stupidity" (e.g., Gioia, 2024; Albrecht, 2003), a situation in which collective brainpower and ability for positive change are wasted due to mistrust, skewed power dynamics, and linear, siloed thinking.

The private sector, as society's key agent of innovation and dynamism, needs to play a central role in addressing these polycrises. However, businesses in positions of power have more to lose from changes to the status quo and, in the short term, are less affected by the negative consequences of climate change, biodiversity loss, and inequity (e.g., McCright and Dunlop, 2011a, b; Bené, 2022). Such organizations tend to remain content with how production and consumption systems operate, despite evidence suggesting that economic activities can deteriorate societal well-being and ecological resilience (Gualandris et al., 2024).

Fortunately, some businesses and civil society organizations are awakening to the necessity and possibility of paradigm change (e.g., Albareda and Branzei, 2024; Arjaliès and Banerjee, 2024). For example, in the food system, many intrinsically motivated farmers, processors, retailers, and investors believe in the need and possibility of regeneration (e.g., Global Network of Lighthouse Farms, Slow Food, International Panel of Experts (iPES), Slow Money Institute, Regenerative Food Systems Investments (RFSI)). The emergence of these viable and replicable "outliers" embracing regeneration, which we refer to as "*change-makers*", provides an opportunity for shifting the broader system.

The food system is an example of a system that has an entrenched regime, built around large incumbent firms and large-scale industrial agriculture with enormous ecological costs. This regime is now under significant pressure from climate change and geopolitical uncertainty (e.g., trade wars). These major forces pressuring the system create opportunities for the emergence of new models, led by change-makers, that are much more aligned with ecological outcomes and social benefits.

Yet, the work of change-makers is not always effective. Over the past several years, the BSV Centre and its affiliated faculty have been pursuing a portfolio of research projects and activities that have helped identify key barriers that hamper the ability of change-makers to "break down" the old regime and build a new one:

 Barrier 1: Poor Connectivity. Change-makers have built networks but often lack community (Mintzberg, 2015), especially communities deeply rooted in place (Slawinsky et al., 2021). While networks connect, communities care, developing solutions tailored to regional issues. Without cohesive communities, change-makers' visions and transition roadmaps will continue to be met with opposition because they are seen as cognitively dissonant, operationally complex, and economically risky (e.g., McCright and Dunlop, 2011a, b).

- 2. Barrier 2: Concentrated Power Structures. In the current business environment, regenerative efforts come at a competitive disadvantage. Change-makers operate within centralized supply chains and concentrated power structures that increase their efforts' operational and economic costs relative to those organizations that disregard the negative consequences of their decisions, actions, and relationships. Pro-social behaviour is inconvenient, curbing the number of businesses that deliberately seek change and those that join them along the transition (e.g., Lavie, 2023).
- 3. **Barrier 3: Efficiency Mindset.** Our contemporary business mindset is framed around efficiency goals— maximizing short term profit or minimizing costs per unit of output (Martin, 2019)—while neglecting broader regenerative principles. These principles would emphasize scope economies and learning economies over scale economies, creating systems that are self-sustaining over time (Gualandris et al., 2024). Additionally, there is a strong tendency for entrepreneurs to prioritize scaling "wide" by expanding geographically and increasing output, rather than scaling "deep" by fostering meaningful integration within regional communities (Kim & Kim, 2022). As a result, many innovations fail to deliver long-term societal impact, often perpetuating systems that are misaligned with the well-being of both people and the planet.

By tackling these three critical barriers, the Ivey BSV Centre will counter "collective stupidity" to catalyze positive systemic change toward resolving ongoing polycrises. We have refined our Vision and Mission to focus our efforts on enabling changemakers to build communities that can drive real change to overcome barriers.

OUR VISION

The BSV Centre envisions a regenerative economy that bridges prosperity and sustainability, where production and consumption systems regenerate society and nature by leveraging their symbiotic relationships.

OUR MISSION

The Ivey BSV Centre will strengthen the capacity of change-seekers across sectors to build thriving communities and co-create effective transition pathways to a regenerative future.

More specifically, the BSV Centre has established an Impact Framework to guide how this Mission is delivered, translating research activities and outputs into real-world impact. Central to our model is a focus on enabling change-makers to develop robust decision-making principles, viable business strategies, agile operational systems, and meaningful relationships toward a regenerative future (see **Figure 2**).

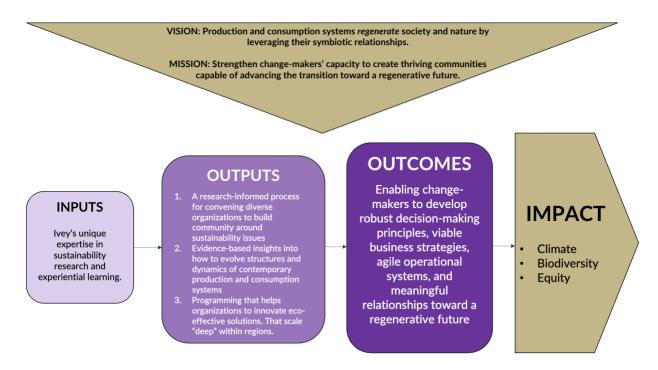


Figure 2: BSV Centre Impact Framework

The vision, mission, and impact framework of the Ivey BSV Centre, framed around the importance of studying and catalyzing the work of viable change-makers, are deployable in a variety of economic sectors, from construction to textiles and energy. Yet, we will initially focus primarily on the Canadian food system. In the following sections, we elaborate on the "Whys" and the "Hows" of this strategic choice, and the specific outcomes we aim to achieve in the next three to five years.

THE CANADIAN FOOD SYSTEM: PAST AND CURRENT BUSINESS

SYSTEM OVERVIEW

The Canadian agri-food system is one of the most economically productive in the world. In 2023, the system generated \$150.0 billion (7% of Canada's GDP), employing 2.3 million people and providing 1 in 9 jobs in Canada (AAFC, 2024). As one of the world's largest food producers, Canada exports nearly \$99.1 billion in agriculture and food products (AAFC, 2024).

Decades ago, farmers worked together and formed regional communities to co-manage resources, often preserving trees, grasslands, and biodiversity. Once common, collaborative farms have evolved into large-scale, specialized operations, defined as "monocultural," that intensively use inputs (e.g., water, energy, and agrochemicals), physical capital (e.g., tractors), and working resources (e.g., fertile land and labour) to improve economic efficiency (Martens et al., 2013; AAFC, 2017; Stat Canada 2022).

Farm policies such as tax incentives for engineered infrastructure, insurance programs, and a land classification system that associates the economic value of land with the ease of use of mechanized, scalable agriculture all contributed to the dominance of monocultures (Obregón et al., 2023a). Market pressures compounded this trend: farmers must frequently buy inputs from large companies with high selling power while also facing large food processors and retailers with high purchasing power. Globalization and concentration upstream and downstream forced farmers to scale and specialize (Gomez & Lee, 2023).

From mechanization to fertilization, modern agriculture has substantially improved food production efficiency. The environmental and social costs, however, resulting from large-scale, specialized agriculture are significant:

- Climate. Globally, the food system is responsible for approximately 35 per cent of GHG emissions (Costa et al., 2022). In Canada, agriculture contributes roughly 54-73 Mt CO₂eq of Canada's greenhouse gas (GHG) emissions (Environment and Climate Change Canada, 2021, 2022, 2023). However, fertilizer production, food transportation, manufacturing, storage, and disposal contribute as much as 100 Mt CO₂eq of GHG emissions (Tubiello et al., 2022). Very few reductions in agricultural emissions are expected by 2030 (1% reduction compared to 2005). Worse yet, global warming may lead to migration and intensification of pathogens and pests. Food production cycles will be altered by high temperatures and CO₂ concentration, which accelerate crop leafing and maturation, strain flowering, and hinder reproduction. Growing climate variability including erratic droughts and heavy precipitations is expected to create price shocks that will exacerbate food insecurity in areas already vulnerable to hunger and malnutrition (Semenova, 2024).
- Biodiversity. Agriculture is a significant driver of biodiversity loss for critical natural systems in Canada (e.g., WWF, 2020). The number of species at risk of extinction has grown by over 50 per cent in 30 years (WWF, 2022). Soil erosion and degradation have been a longstanding issue in Canadian agriculture. Despite some improvements in soil health over the past decades, soil depletion remains an issue in many producing regions (AAFC, 2016). In most municipalities throughout Ontario, for example, agroecological approaches that preserve biodiversity, such as intercropping, rotational cropping and grazing, cover crops and green manure, remain an exception (Obregón et al., 2024).

• Social Equity. Despite growing food exports, 8.7 million Canadians, including 2.1 million children, live in food-insecure households (Li, Fafard St-Germain & Tarasuk, 2024). In 2020, over half of Canada's total farm operating revenues came from just 4.1 per cent (7,746) of farms in the revenue category of \$2,000,000+, with most other farms struggling to achieve and sustain economic viability. Yet, these small to medium size farms can play a critical role in combating food insecurity, through serving local communities directly or by selling into national and international value chains (Galli et al., 2020). The average farm size doubled during the last 50 years, reaching an average of approximately 800 acres/farm, managed by as few as one or two farm operators, often feeling isolated and at risk of mental health issues. Finally, despite long-standing efforts by indigenous communities to regain food sovereignty (Indigenous Food Systems Network, 2025), in 2021, only 2.8 per cent of the farming population self-identified as Indigenous.

A NEW VISION OF THE FUTURE?

These system failures highlight the need for a transition to a new agri-food system – in Canada and globally. To meet the Sustainable Development Goals and the Paris Climate Agreement, the global agri-food system will need to deliver universal access to affordable, nutritious food for 10 billion people, support the livelihoods of producers and communities, while becoming a net sink of GHG emissions and protecting and enhancing ecosystems and biodiversity globally.

Moving toward this new food system is possible but will require transformational change. For example, a recent Scientific Report in *Nature* (Cost et al., 2022) identified plausible scenarios for a net-zero global food system that addresses food insecurity and achieves net zero emissions by 2050 without relying substantially on offsets. This scenario required widespread adoption of sustainable production practices, sustainable intensification of production to eliminate deforestation, shifts towards healthier and more sustainable diets, widespread adoption of circularity practices to eliminate waste, adoption of new technologies, as well as comprehensive measures to drive food access and security.

This level of change needs to be framed around a new vision of the food system. A vision for the future of the food system was developed and defined as an element of the Food Policy for Canada (**Box 1**). As a foundational element of our strategy, the BSV Centre is currently consulting with a wide group of change-makers across the food value chain to establish a collective perspective of how we define the desired attributes of a future food system (**Box 2**).

Box 1: A Food Policy for Canada: Vision for the Future of Food in Canada (AAFC, 2019)

All people in Canada are able to access a sufficient amount of safe, nutritious, and culturally diverse food. Canada's food system is resilient and innovative, sustains our environment and supports our economy.

Box 2: A Future Agrifood System – Stakeholder Perspectives

To further inform this vision, the Ivey BSV Centre has been engaging with a diverse group of actors across sectors (including farmers, manufacturers, retailers, investors, NGOs, community organizations, Indigenous organizations, and major public institutions) who are seeking to create a sustainable food system. Through interviews and focus groups, we are mobilizing diverse, multi-sector perspectives to consolidate a "shared" vision of the desired food future, elaborating (and challenging) the vision defined in the Federal Government's *Food Policy for Canada*.

While this research is still in progress, a broad picture is starting to emerge. Improving the sustainability of food production systems will require blending new technologies with old ways of co-managing resources. The words "organic," "regenerative," and "polycultural," among other descriptors, have been used in the context of sustainable food production. Indigenous Nations, especially the Haudenosaunee, mastered these approaches, "capitalizing on synergies and resilience characteristics associated with complex ecosystems and their linked social, economic, and biophysical systems" (NRC, 2010; FAO, 2018). Similarly, several think-thanks such as Smart Prosperity Institute (2021), Forum for the Future (2022), the Ellen McArthur Foundation (2021), and Transition Accelerator (2023) have converged on a future vision for sustainable food production systems characterized by the following features:

- Diversified. The diversification of production methods allows for a larger variety of crops, produce, and livestock, with positive effects on carbon emissions, biodiversity, water, and nutrition (Zomer et al., 2016; Teague et al., 2016; Rassmussen et al., 2024). Moreover, diversification helps to increase yields and build resilience against climate change by promoting the self-renewal capacity of natural systems and the synergistic relationship of diverse species working together in a community of life (Jones et al., 2021; Tamburini et al., 2020). Finally, diversification helps to prevent over-consolidation of land and markets, making local consumption systems resilient to global supply uncertainties (Bloomfield, 2023). In summary, agricultural diversification—intentionally diversifying crop and non crop, and livestock species on a farm or geographically proximate farms— have positive effects on climate change and biodiversity loss, while potentially contributing to addressing inequity, in the form of food insecurity, by elevating farms' yields, resilience, human well-being on the farm and food security off the farm.
- Inclusive. Connecting farmers across sub-industries (e.g., crops vs. produce vs. livestock), scales of operations (e.g., large vs. small), and socio-cultural divides (e.g., settlers vs. Indigenous) centers actions around regional farm communities and allows for leveraging diverse perspectives and expertise in the co-creation of innovative ways of farming and co-managing resources. Heightened levels of connectivity and co-management of resources across diverse farms represent a critical step to support the uptake of diversified production systems, while also potentially addressing issues related to food sovereignty (by building bridges across diverse socio-cultural groups) and mental health (by enhancing participation and collaboration among farmers).
- **Eco-Effective.** There is no such thing as "waste" in nature. Agriculture should connect diverse organizations so that the resources wasted by one productive process (e.g., carbon, nutrients, water, food by-products, underutilized assets) can productively feed the processes of another, regenerating nature and society in quasi-perpetuity (FAO, 2018; Bach et al., 2020). Eco-effectiveness aims to increase the "positive emissions" of products and operations, rather than minimizing the "negative emissions" of existing (food) systems (Braungart, McDonough & Bollinger, 2007). In working toward an eco-effective food system, actors within it increase their productivity through economies of scope, making their regenerative business model more competitive.

In many respects, this holistic understanding and vision of a future agri-food system is embedded in the concept and principles of **Agroecology**. Agroecology is the well-established core framework for sustainable agriculture championed by the United Nation's Food & Agriculture Organization (FAO), the UN's lead agency on sustainability in the global food system. Agroecology is "...an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system." (FAOb, 2018).

Box 3 presents an overview of the distinct features of agroecology relative to other conceptualizations of an ideal future food system – these features include key aspects of particular relevance to the true transformation of the food system:

- Bottom-up contextualized solutions to problems
- Co-creation of knowledge
- Empowering communities of change (especially producers)
- Focus on root causes and holistic long-term solutions

Box 3: Food & Agriculture Organization: What makes Agroecology distinct? (FAO, 2018b)

"Agroecology is fundamentally different from other approaches to sustainable development. It is based on bottom-up and territorial processes, helping to deliver contextualised solutions to local problems. Agroecological innovations are based on the co-creation of knowledge, combining science with the traditional, practical and local knowledge of producers. By enhancing their autonomy and adaptive capacity, agroecology empowers producers and communities as key agents of change.

Rather than tweaking the practices of unsustainable agricultural systems, agroecology seeks to transform food and agricultural systems, addressing the root causes of problems in an integrated way and providing holistic and long-term solutions. This includes an explicit focus on social and economic dimensions of food systems. Agroecology places a strong focus on the rights of women, youth and indigenous peoples."

CURRENT IMPROVEMENTS

Over recent decades, the Canadian agri-food system has made substantive improvements in its environmental performance (AAFC, 2016). For example, there has been significant effort and progress in reducing soil erosion and the adoption of more sustainable production practices, such as widespread use of cover cropping in the Canadian prairies. While absolute GHG emissions remain high, Canadian producers have among the lowest emissions per unit production for key crop products relative to other major countries (Transition Accelerator, 2023). However, in the face of the challenges outlined above, there is broad sectorwide recognition of the need for change. There is a widespread ecosystem of action:

• Federal Government. Agriculture and Agri-food Canada (AAFC) is now leading the development of the Sustainable Agriculture Strategy (SAS), defined as "a shared direction and vision for collective action to improve environmental performance and enhanced resilience to climate change in the agriculture sector" (AAFC, 2023a).

- **Producers.** There is a growing movement of producers that are transitioning their operations to incorporate sustainable and regenerative practices, supported and given voice by networks such as Farmers for Climate Action and Ontario Soil Network.
- **Civil society.** There are a number of national, provisional, and local civil society groups supporting sustainability and regeneration in the food system. Leading examples include Regeneration Canada, Ontario Soil Network, and Equiterre.
- Major Businesses. Major businesses in the Canadian agri-food value chain have made major commitments to action and are driving change. For example, McCain Foods has committed to supporting 100 per cent of their potato farmers to adopt regenerative practices by 2030. Maple Leaf Foods is aiming to be "the most sustainable protein company on Earth" and has set "science based" climate targets under the SBTi Initiative.
- Major Partnerships. Canadian Alliance for Net-Zero Agri-food (CANZA) is a new national alliance to "...foster collaboration and innovation to drive Canada's agri-food system towards net zero". The initiative includes major businesses, thinktanks, and academia. Its current program focuses on developing an MRV system to support climate-smart farming and a national biodigester initiative.
- **Foundations.** Major Foundations have shown growing interest in supporting sustainability in agrifood, with a group of some of the prominent foundations commissioning a report to identify impact areas for action (Transition Accelerator, 2023).

BARRIERS

This range of collective action efforts is making progress across the Canadian agri-food system, from grassroots community efforts to major national initiatives. However, the pace and scale of this change are insufficient. As highlighted above, the three key barriers that need to be addressed to accelerate systemic change have specific applicability in the agri-food system:

- **Poor Connectivity.** Farmers may be connected through digital platforms, but they struggle to work together effectively because they compete for land and resources, and operate in siloed value chains. As a result, they struggle to collaborate and share knowledge regionally.
- Concentrated Power Structures. The centralized supply chains and concentrated power structures
 of the contemporary food system do not encourage sustainable food production, and the ideal
 economics of sustainable food production are yet to be realized.
- **Efficiency Mindset.** The current business mindset prioritizes short-term efficiency and profit. As a result, many innovations fail to deliver long-term societal impact, and instead often perpetuate systems that are misaligned with the well-being of people and the planet.

To address these barriers, we see two critical areas of action that inform the core focus of our Theory of Change: stronger and clearer incentives for key actors in the system (especially producers) to transition to more sustainable practices: and enhancing the opportunity for collective action by system changemakers to

pool their knowledge and collective system influence. These enablers are described further in the following sections.

STRONGER INCENTIVES

Many of the initiatives identified above, especially those led by large incumbent value chain actors, focus on a relatively narrow set of practice changes at the farm gate, incentivized through top down mechanisms. While corporate programs have large footprints in terms of the producers and farm area included, they likely incorporate limited change. A review conducted by Titonell et al. (2022) of definitions of regenerative agriculture noted that "...the transitional and transformational processes necessary to arrive at future sustainable food production are virtually absent, so far, from most definitions of regenerative agriculture." They further note that while corporate definitions of regenerative agriculture "....may present an improvement as compared with business as usual in conventional large-scale monocultures, and represent a "gateway" opportunity that exposes large scale farmers to questions about sustainability", they have low potential to contribute to sustainable development of the socio-ecosystems as compared with more agroecological shifts by more aggressive (and often smaller scale) change-makers. Through the lens of the Multi-Level Perspective, Leeuwis et. Al. (2021) note that this reflects the dynamic stability of the existing system regime, partially adapting to change without disrupting the status quo.

Moreover, a recent report by Deloitte reveals that regenerative agriculture, defined as combining practices such as cover crops, reduced tillage, crop rotation and organic fertilization, requires about 10 years to reach a positive business case through improved yields and reduced operating costs. The report reveals that in most cases, and especially for small and medium farm operations, incentives from corporations operating downstream in the value chain are insufficient to cover the full costs and risks associated with the transition (Piñeiro et al., 2020). At both the individual farm level, in an aggressive investment scenario where the farm embraces multiple regenerative practices, ecosystem service payments and supply chain agreements (volume, price, delivery arrangements and other supply chain finance) do not cover the full cost of the transition. The centralized supply chains and concentrated power structures ¹ of the contemporary food system do not encourage sustainable food production (e.g., Obregon et al., 2024). At the collective level, the report suggests that in the EU, aggregate funds from public and private sources would be able to support only 5-10% of the agroecological transition.

Besides high operational complexity and weak incentives, rapid urbanization and land ownership concentration may prevent farmers from investing in sustainable food production (e.g., Obregon et al., 2023); a broader concerted effort by processors, retailers and investors to reimagine the system and its incentive structures is needed to catalyze the transition.

COLLECTIVE ACTION

Collective action refers to actions taken together by organizations that aim to achieve a common objective – a sustainable food system – whose resources and capabilities are often interdependent and complementary (Gatignon & Capron, 2023; Ostrom, 1990). Collective action enables peer-driven co-creation, experimentation, and institutionalization of new ways of producing, manufacturing, and distributing foods. As collective action emerges, it will inform public policy (e.g., How to minimize counter-productive red tape? How

¹ This phenomenon is common across sectors, not just in the food system. For an interesting take on the negative economic, social and ecological implications of efficiency and concentration, please refer to Martin (2019) or to Gualandris et al., (2024).

to rethink fiscal incentives and insurance programs?), procurement and distribution processes (e.g., what constitutes regenerative foods? How to source and distribute such foods to address food insecurity and food sovereignty?) and capital allocation decisions (e.g., how to best value agricultural land? How to de-risk the transition to agroecology?).

Collective action has been identified as a key opportunity to accelerate the transition of the Canadian agrifood system (AAFC, 2023a; Transition Accelerator, 2023). For example, in the new Sustainable Agriculture Strategy under development by AAFC, collective action is seen as essential to developing sustainable agriculture principles and protocols proposed by farmers to guide the work of fellow producers and other players in the food supply chain. Yet, our research reveals that farmers struggle to work together effectively because they compete for land and come from diverse socio-cultural backgrounds (e.g., Obregon et al., 2024). Farmers connect across long geographical distances through Facebook, X, WhatsApp and other digital platforms. Yet, they retain only a few deep connections with farming neighbours (and often only if such neighbours belong to the same sub-industry). Moreover, an excessive focus on eco-efficiency (i.e., maximizing yields while minimizing ecological costs per unit of output) can be associated with short-termism and individualism, hampering collaborative processes of co-creation and co-management of private and public resources, typical of a diversified, inclusive and eco-effective agri-food system

Andree et al. (2023) highlight that "...sustainable approaches to agricultural production and food distribution are emerging in many different contexts," but that these still tend to be experimental or operating at small scales and in protected markets. "Meanwhile, the 'regime' practices of the last fifty years still dominate in most agri-food sectors. As a result, the scalability of many currently proposed solutions remains unclear in the agri-food system." This observation emphasizes the opportunity for action to support true agro-ecological innovators to emerge out of the regime to challenge the status quo, especially through the opportunity for collective action.

THE IVEY BSV CENTRE 'THEORY OF CHANGE' FOR THE FOOD SYSTEM

The Ivey BSV Centre has developed a specific **Theory of Change** for the Canadian Food System that seeks to empower changemakers to drive transformative change, through tackling the three systemic barriers – **poor connectivity, concentrated power structures, and efficiency mindsets** – with a core focus on **strengthening incentives for transition** and enhancing the opportunities for **collective action**.

Our ToC has been developed through a yearlong engagement process involving dozens of farmers (conventional, agroecological, and Indigenous), agronomists, processors, retailers, agricultural associations, financial institutions, and local government (Obregon et al., 2024). It proposes nurturing caring regional communities of farmers that acquire legitimacy, sophistication, and critical mass over time. It also proposes helping change-ready businesses and entrepreneurs expand their focus on transformational eco-effective solutions by evolving their business models, procurement processes, and investment frameworks.

We aim to play a catalytic role in transforming Canada's agri-food system with a three-pronged strategy: nurturing farmer communities of practice; mobilizing change-ready businesses to foster regenerative value chains; and equipping entrepreneurs with an eco-effective mindset. We are actioning this approach through three impact-focused **Lighthouse Projects:**

- 1. Collective Action Program for Sustainable Agriculture
- 2. Agrifood System Transformation Pathways Initiative
- 3. "Regenerator" Sustainable Entrepreneurship Accelerator

These three Lighthouse Projects are described in more detail in the following sections. They will deliver impactful outcomes by motivating and enabling farmers and businesses across the agri-food system and leveraging Ivey's key areas of expertise: shifting decision-making principles, strategies, operations, and relationships toward a regenerative future.

Appendices A, B and C summarize our lighthouse projects' objectives, inputs, outputs, and outcomes.

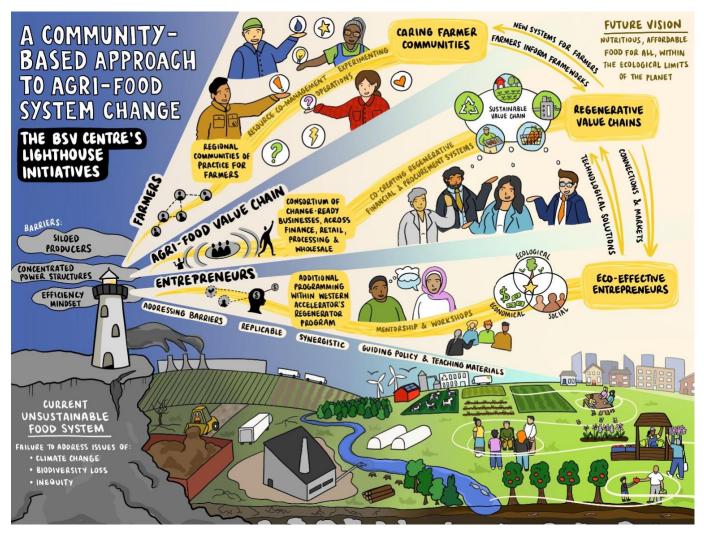


Figure 3: ToC toward a regenerative food system

LIGHTHOUSE PROJECT 1: "COLLECTIVE ACTION PROGRAM" (CAP)

The objective of CAP is to support farmers in specific regions in developing inclusive and regenerative communities of practice, a key mechanism to improve the economic sustainability of agroecology at scale. We define a community of practice (CoP) as a cooperative, self-organized group of local farmers from diverse sub-industries (e.g., crops, livestock, produce) and cultural backgrounds (e.g., settlers, Indigenous) that pursue shared goals. Agroecology can be structured to generate stable incomes for farmers and their broader region, while alleviating mental health issues, improving equitable access to nutritious food, and bringing back nature's self-renewal ability.

- 1. Regenerative and inclusive CoPs should fulfil three functions:
- 2. Help farmer members experiment and exchange best practices to co-manage scarce resources (land, equipment, agricultural inputs) and tailor agroecology to their land, acquiring economic resilience and reconciling ecological and economic outputs. Agroecological principles are clearly defined, but their application in specific regions with unique climate conditions, soil structures, and management histories happens through peer-to-peer learning and experimentation. The CAP project will also provide access to additional expertise (e.g. agronomy, finance) if identified as important by the community.
- Grow a social network of experts around farmer members to broker financing opportunities, learn about innovative technologies, and experiment with new land ownership structures (e.g., trust-based) and decentralized food production and distribution models (e.g., consumer-producer and worker cooperatives).
- 4. Help members elevate their visibility and influence in the region. Farmer members should effectively engage with businesses outside their CoP, overcoming polarization and creating critical mass around their agroecological principles and goals.

This emphasizes the need for collaborative design of farming objectives and practices to better suit local needs and contexts, and to recognize the societal benefits beyond individual economic benefits (de Groot et al., 2022). Adoption of regenerative farming practices can also benefit from the development of transdisciplinary research, incorporating farmers' knowledge and building on farmer-to-farmer knowledge exchange (Luján Soto et al., 2021). When aiming at building sustainability, resilience and adaptive capacities, such co-innovation processes, with all the learning and social cohesion that is generated through them (Rossing et al., 2021), may be more important at fostering long-term sustainable transitions than the initially promised outcomes in term of soil, water, carbon and biodiversity.

Agricultural associations in Ontario and elsewhere specialize in little cross-coordination (e.g., Grain Farmers of Ontario, Beef Farmers of Ontario, Poultry Farmers of Ontario). The few organizations that aim to create cross-pollination (i.e., National Farmers Union, Ontario Soil Network, Alternative Land Use Services (ALUS), Farmers for Climate Solutions) have, insofar as connected farmers across sizeable geographical areas. Creation of deep connectivity within regions is further needed.

We will expand and complement such efforts to build capacity in *regional* communities, each subject to specific climate conditions, soil structures, cultural histories, and supply chain challenges. Proximity will help with cooperation and developing a sense of shared identity and responsibility.

Producers will be learning from each other to then individually adopt new practices, while exploring wider possibilities to restructure local supply and demand. This will create the opportunity for much higher levels of physical interaction in the flows between farms in a region, and thus creating local markets is critical to the development.

Such communities will act as grassroots movements that define and enable sustainable food production bottom-up within specific regions. Research shows that "scaling deep" in specific regions, rather than scaling wide provincially or nationally, generates more economic, social, and ecological gains by fostering stronger reciprocal relationships between people and land (Kim & Kim, 2022).

By December 2026, our first CAP pilot will support a group of 10 to 15 change-seeking farmers in Middlesex County (ON, Canada), collectively accounting for 3000 to 4000 acres of agricultural land, to establish a regional CoP that works toward specific agroecological and food sovereignty goals.

We expect the Middlesex CoP to become self-governing and self-sustaining by December 2027. By then, CAP will also establish at least one more regional CoP in another Canadian region.

Self-governing and self-sustaining CoPs develop sophisticated governance structures to make collective decisions and coordinate how community members co-manage resources, both public and private. Within agriculture, CoPs are expected to coordinate activities that support experimentation with nature-based solutions, improvement of farm-level and community-level operations, and mitigation of mental health² and food sovereignty³ issues.

Middlesex County has over 2,000 farms for over 500,000 acres of land. Over time, we assume that the Middlesex CoP will grow into a much larger group based on two mechanisms:

- Active engagement and knowledge transfer. The Middlesex CoP will develop protocols for engaging farmers and businesses outside the community to share lessons learned and promote emergent solutions.
- Normative and mimetic social forces. Based on our recent research (Diebel, Gualandris, & Klassen, 2024), we expect that farmers operating outside the Middlesex CoP, when making decisions about their future commitments and farming approach, will refer to the CoP and its members as legitimate "champions" whose success in optimizing ecological, social, and economic performance through sustainable practices can serve as a path for others to follow.

If a community remains small, members' stories and opinions are likely to circulate. Without new blood or more farmers, interactions may become stale unless the domain is highly dynamic and constantly presents new, exciting challenges. However, "deep" interactions become more difficult the larger a community grows, which may spawn smaller subgroups based on specialized interests or geographical proximity (Wenger & Snyder, 2000). The Middlesex CoP will maintain full autonomy regarding how much and how rapidly it will grow. Moreover, the CoP will autonomously decide whether to develop specific outcome measurement systems and formally feed input into government forums or downstream businesses to advance its agenda (Fraser et al., 2005).

² https://mentalhealthcommission.ca/resource/agriculture-and-suicide/

³ https://www.nfu.ca/learn/food-sovereignty/

In partnership with the <u>Ontario Soil Network</u> and the <u>John F. Wood Chair for Innovation in Business Education</u>, the Ivey BSV Centre will catalyze the emergence of the Middlesex CoP by organizing workshops, social events, and a digital platform for about 18 months. Our program will leverage Ivey's extensive and unique expertise with experiential learning to offer diverse exercises and tools to build mutual respect and openness among farmers, catalyze their ingenuity and business acumen, grow their collective decision-making muscle, and strengthen connectivity within and outside the CoP. In collaboration with the <u>Western Biotron Experimental Climate Change Centre</u>, the Ivey BSV Centre will also conduct in-depth economic and ecological assessments at five diverse farms within the Middlesex CoP. Over time, the CAP will also build connectivity with the STP initiative to strengthen the demand and procurement signal from the value chain.

We will start mobilizing other CoPs in 2026. We are in conversation with Trent University (ON, Canada), the University of Guelph (ON, Canada), McGill University (QC, Canada), Duke University (USA), and Scuola Superiore Sant'Anna Pisa (Italy) to replicate CAP in other regions, in Canada and abroad.

LIGHTHOUSE PROJECT 2: "SYSTEM TRANSFORMATION PATHWAYS" (STP)

While building regional CoPs is necessary to stimulate experimentation and create cohesiveness among farmers, the contemporary food system's centralized supply chains and concentrated power structures would still act as relevant constraints to bottom-up systemic change. For example, global demand for certain crop commodities has dramatically restricted the ability of farmers to rotate crops, have fields lie fallow, and plant green manure while still trying to remain economically viable. Farmers need consistent regional demand for diversified, nutritious foods to transform their operations. They need transition financing and perhaps even monetization of ecosystem services (e.g., carbon sequestration, water filtration, nutrient density per food item) to afford upfront investments in new equipment and learning operational procedures that consume time and money but pay off in the long term. So, how do we keep dollars on the farm, increase returns per acre and support the growth of regional agroecological communities? How do we enable regional production, processing, and consumption of food?

The objective of STP is to mobilize a change-ready group of influential businesses operating in the Canadian Food System to co-create procurement and financing frameworks that catalyze the work of CoPs. While it is widely agreed that the power and influence of the private sector are major drivers of the current system problems, the STP initiative aims to capture the opportunity for the following influential business categories to effect transformational change:

Business changemakers. Not all businesses are invested in maintaining the status quo. A growing number of businesses understand the critical importance of the transition to a more sustainable and inclusive food system, acknowledging its potential to create compelling opportunities to deliver simultaneous financial and societal value. Many of these businesses are innovative medium-sized players, including processors (e.g., B Corp certified Riverside Natural Foods, VG Meats), retailers and wholesalers (e.g., Longo's Markets, Courchesne Larose), and providers of capital (e.g. Power Sustainable Lios). Large incumbent firms are beginning to move in this direction (e.g. McCain Foods, Loblaws, RBC, and other partners in the CANZA consortium) but are also embedded in the current unsustainable system.

- Fundamental role of markets and private transactions. The food system is fundamentally structured around market transactions between private actors (e.g., farmers, entrepreneurs, corporations, and households). Understanding and ultimately shifting the structures, incentives, financing, and procurement relationships that govern these transactions represent critical levers for transitioning to a desired future system.
- **Expertise of Ivey.** The business 'architecture' of the food system is where Ivey's researchers have unique expertise and insights, and where we can support and complement the work of other changemakers elsewhere in the system.

Through STP, by March 2026, a group of eight to ten change-seeking businesses will converge on a shared vision for a sustainable Canadian food system (built upon our wide multi-stakeholder engagement on a desired future) and co-create synergistic roadmaps that each business can individually pursue to enact such a collective vision.

Achieving such an outcome requires convening a set of change-ready businesses with sufficient visibility and influence in the food system, and creating the right conditions for them to come together in a pre-competitive setting to co-create a shared vision and a set of roadmaps. Businesses will be selected based on their genuine commitment to change, evidenced through explicit (and, when possible, verified) commitments to climate, biodiversity, and food security.

We will select businesses operating in food manufacturing, retailing, and the financial sector. Ideally, these businesses will be in southern Ontario, where CAP is first targeted. They will have access to CAP learnings, and we will be able to try to, for example, provide their procurement support or link up their product development to regen opportunities in CAP. Manufacturers and retailers in this group will develop specific roadmaps to leverage their business toward more sustainable food production. Institutional and private investors will work on developing new capital allocation principles and accounting models.

Our aspiration is for our selected companies to collectively control a market share of about 10 to 15 per cent⁴ in each industry, such that change-ready firms have some leverage but are not firmly entrenched in the concentrated power structures that dominate the food system. Moreover, we will seek to involve one or two large organizations active in food processing and retailing that have embraced alternative forms of organizing (e.g., non-profit organizations, cooperatives, including Indigenous-led).

Partnering with organization(s) with specialist expertise in complex system transitions (e.g., <u>Transition Accelerator</u>, the Transcap Initiative), the Ivey BSV Centre will design and deliver a workshop series that leverages system thinking to help these businesses zoom out from their current reality, envisage a shared desirable future, and co-create roadmaps of actions that are specific to each organization but synergistic across organizations. The composition of the group is purposefully heterogeneous (i.e., different industries

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⁴ The food system is highly concentrated across the value chain. Food manufacturing in Canada is dominated by brands like Kraft Canada, Inc., General Mills, Maple Leaf Foods, Cargill, Nestlé, Agropur, and PepsiCo, especially in Ontario and Quebec. In 2022, food and beverage processing was the largest manufacturing industry in Canada in terms of value of production with sales of goods manufactured worth \$156.5 billion. Since 2018, exports of processed food and beverage products grew at an average annual rate of 9.2 per cent. Meanwhile, imports grew at an annual rate of 6.3 per cent during the same period reaching \$45 billion in 2022. Canada is a net exporter of agricultural commodities (US\$37 B) and a net importer of horticulture (especially fruits), beverages, and processed consumer products (US\$28.3 B). Food retailing in Canada is also highly concentrated, with Loblaws, Sobeys, Metro, Costco, Walmart controls 76 per cent of the market. For more information, refer to Canadian Food Manufacturing (2021) and Statistics Canada (2022b). Our idea to work with mid-size businesses and organizations challenges established thinking in the management literature suggesting that large and small players are more innovative than medium-size players (i.e., inverted U shape relationship between size and innovation (Aghion et al., 2005; Hashmi & Biesebroeck, 2016)). However, these theories did not consider radical changes in existing practices, but rather incremental product and process changes.

and different understandings of sustainability and regeneration), but, like CAP, all businesses and organizations involved are intrinsically committed to change. Our workshops will be designed to create mutual respect, openness, and a muscle for collective decision making between them.

We anticipate that this community of influential businesses and organizations will see significant value in continuing to collaborate in building momentum to implement their roadmaps and accelerate transitions in the food system. We will actively explore this possibility with the STP community, including opening the possibility for other organizations (and stakeholders from different sectors) to join the group.

LIGHTHOUSE PROJECT 3: REGENERATIVE ENTREPRENEURSHIP ACCELERATOR (REA)

The third barrier concerns the development of business models and technological solutions that embrace new thinking around sustainable food production. The REA aims to equip nascent entrepreneurs with systems thinking frameworks and tools that help them develop economically sound, eco-effective business solutions.

The Regenerator program within the Western Accelerator has already developed and tested additional programming for ventures focused on enhancing their economic, ecological, and social performance. By December 2025, REA will have supported the acceleration and successful funding of eight to ten ventures. Solutions advanced by these ventures may enable effective water purification (e.g., Xatoms), urban vertical farming (e.g., Edie Farming), and upcycling of organic waste into nutritious snacks (e.g., EasySnack), among other possibilities.

In partnership with the <u>Western Morrissette Institute for Entrepreneurship</u>, the Ivey BSV Centre is designing and delivering four workshops focused on circularity, regeneration, sustainable financing, and systems thinking to a first cohort of 12 ventures. Four of these ventures have already embraced regenerative, ecoeffective business models. We are also pairing these ventures with change-seeking mentors with an established track record of societal impact.

CREATING SYSTEMIC CHANGE IN CANADA'S FOOD SYSTEM

First, each project tackles a specific barrier to systemic change:

- **CAP** tackles competition and polarization between farmers by creating regional CoPs for bottom-up change.
- **STP** challenges the contemporary food system's centralized supply chains and concentrated power structures by mobilizing a change-ready group of influential businesses to reconsider their procurement, distribution, and investment principles processes.
- REA challenges thinking skewed toward excessive eco-efficiency and scaling wide by equipping new ventures with system thinking tools to generate eco-effective solutions that produce deep impacts in regional communities.

Second, lighthouse projects are synergistic:

- CAP enables STP. Through CAP, widespread bottom-up agreement among farmers concerning
 agroecological principles and regional standards will inform the development and adoption of new
 procurement/finance frameworks by downstream businesses.
- STP enables CAP. Through their procurement and financial decisions, businesses in STP can give top-down visibility, power, and capital to agroecological farmers in the agroecological CoP. Through their synergistic business decisions, they also offer economic reasons for conventional farmers to join CoPs or mimic their principles and practices. Through ecology studies, we know that systems do not transform from within. Instead, new systems are built on the side, and systemic change happens when actors in the old system see the new system as more attractive, rapidly migrating to the new reality, which replaces the old (Meadow, 1999; Buckton et al., 2023).
- REA enables CAP and STP and vice versa. Working with entrepreneurs early on in their journey will
 help shape eco-effective technological solutions that reduce the operational and organizational
 complexity faced by change-seeking farmers, manufacturers, retailers, and investors. In return, CAP
 and STP can create useful connections and markets for emergent ventures.

Third, our lighthouse projects are designed with **replicability** in mind. Each lighthouse project produces a toolkit of excellence that provides guidance on how to replicate and adapt our interventions elsewhere. We have already started to build a network of academics and practitioners who can scale our efforts in a decentralized fashion.

The BSV Centre is taking a radical approach to cultivating system-wide change, but with a focus on impact at scale. We are committed to understanding the shifts needed in the paradigms and mindsets within Canada's agri-food system, working with communities of change-makers who are driving change in practice. These communities are key to transformation, especially when they shape new models that are also adoptable by larger existing players who are truly motivated for a more sustainable system.

Fourth, our fieldwork will create evidence-based guidance for **public policies** and **teaching materials** that can be disseminated widely across our diverse academic and practitioner networks. Ivey is the second largest producer of cases and teaching materials in the world. These pedagogical materials can provide large-scale access to lessons learned in CAP, STP, and REA.

SUPPORTING INITIATIVES & IMPACT LABS

PARTNER-LED AGRI-FOOD INITIATIVES

The BSV Centre also supports a wider portfolio of additional initiatives to maximize overall impact. The outcomes of these initiatives are defined by other parties but are aligned with our mission and are complementary to the lighthouse initiatives.

100% Great Lakes Fish

(by the Conference of Great Lakes St. Lawrence Governors and Premiers, GSGP)

- The Great Lakes are home to a sizeable commercial fishery. People eat the
 fillet of the fish, and the other 60% of the fish is used for low-value animal feed
 or discarded. GSGP is leading a collaborative effort to encourage full
 utilization of each commercially caught fish from the Great Lakes, utilizing a
 model successfully deployed in Iceland.
- By August 2025, the BSV Centre will guide GSGP and their regional network of partner companies to develop new supply chains that valorize fish discards toward viable markets, contributing to reduce GHG emissions and improve local bio-diversity.

Omics to Close the Loop

(by Genome Canada Genome Quebec, Université de Montréal, INRS)

- The Omics project advances the ecological and economic potential of urban food systems. Specifically, it studies how to divert urban food waste to decentralised composting (10%), mushroom (5%) or insect (5%) farming, resulting in estimated reduction of 220,791 tonnes of CO2 emissions and 202,379 tonnes of carbon sequestered in soil by 2035, generating \$71,9M carbon credits, \$700G revenues and 36k jobs.
- By May 2026, the BSV Centre will guide the City of Montréal, and a local network of companies, to grow circular pathways (upcycling to humans vs. feeding insects vs. growing mushrooms vs. composting vs. bio-mass energy) that are most economically valuable and ecologically impactful.

FUTURE OF AGRI-FOOD EVENT SERIES

The Future of Agri-food Event Series is convening key Canadian thought leaders to explore Canada's role in the future of the agri-food system, and the key opportunities and challenges facing the sector. The series is jointly convened by the Ivey Centre for Building Sustainable Value and the Ivey Academy. The primary goal is to build awareness in key networks (executive leaders in business and finance) concerning key opportunities and challenges in agri-food for Canada, especially the critical issues associated with a just climate transition.

Past sessions have covered the following areas:

- 1. The Future of Agri-food: Canada's Leadership Opportunity (October 2023)
- 2. Regenerative Agriculture: The Role of Finance & the Value Chain (January 2024)
- 3. Circular Food Economy: Canada's \$50 Billion Opportunity (June 2024)
- 4. Challenging the Production Paradigm: Voices of the Farmer (November 2024)
- 5. Necessities of life: Policy's role in food security (April 2025)

IMPACT LABS

Nested within the BSV Centre, four labs provide the toolbox for investigating systems and advancing evidence-based solutions. These four labs were established recognizing the importance of transitioning organizations and the economy to net-zero GHG emissions and circular models, catalyzing innovation, and new financial instruments as key tools for accelerating these transitions:

- **Net-Zero Lab, Led by Prof. Rob Klassen.** Through case studies and dialogue with leading Canadian businesses taking bold climate action, the Net-Zero Lab is identifying the opportunities and decision points to build ambitious and actionable net-zero strategies that position firms to thrive in a net-zero future.
- Circular Economy Lab, Led by Prof. Jury Gualandris. Through case studies, life-cycle modelling, and field interventions, the Circular Economy Lab identifies, examines, and facilitates opportunities to narrow, slow and close material cycles across businesses, supply chains and sectors, to create socioecological as well as economic value.
- Innovation North, Led by Prof. Tima Bansal. Through learning sessions with world-leading researchers and innovation projects with business partners, Innovation North is developing a research-based innovation process and new systems thinking tools that give individuals, business, and society a view towards a higher value(s) future.
- Sustainable Finance Lab, Led By Prof. Diane-Laure Arjalies. Through case studies and multistakeholder initiatives, the Lab supports the development of innovative financial instruments that can catalyze the transition to sustainable development. Research focuses on frontier applications of sustainable finance in Canada – including ecosystem conservation, blended finance, and Indigenous communities.

While these four labs are "cross cutting" they all contribute significantly to the BSV Centre's strategic focus on the Agrifood System.

| LAB | AGRI-FOOD CONTRIBUTION |
|------------------------|--|
| CIRCULAR ECONOMY | The Circular Economy Lab has a major focus on the Agri-food System. It has analyzed in detail the opportunity for "climate smart" circular solutions in the food system and the emergence (and success factors) of circular food networks in Canada. |
| NET ZERO | The Net Zero Lab investigated how leading companies are navigating the strategic implications of setting ambitious "science based" climate targets. A key subset of the firms studied were from the agri-food value chain, tackling the complex challenge of Scope 3 emissions in Food Production. |
| INNOVATION NORTH | Innovation North and the University of Guelph have partnered since 2022 through the Sustainable Agri-Food Futures project. This partnership aims to address key challenges in the farming industry by promoting and implementing sustainable agriculture practices. Guided by the Innovation North Compass, this project identified soil health as the heart of agri-food sustainable futures. |
| SUSTAINABLE FINANCE | The Sustainable Finance Lab has focused significantly on the opportunities to use new tools and mechanisms to support the transition to Regenerative Agriculture. A major Report from the Lab – Advancing Regenerative Agriculture in Canada – addresses the key barriers and opportunities for scaling regenerative agriculture in Canada. |

EXPERIENCE WITH CATALYZING REGENERATIVE SYSTEMS

A core capability of the BSV Centre is scaling the impact of Ivey faculty research on practice. Over the past five years, the Ivey BSV Centre has developed the **Research Impact Roadmap** as a proven set of tools and approaches for scaling and accelerating the impact of research to enable systems influence. The roadmap is built on two strategies to maximize real-world implications:

- Regular outreach to increase stakeholder awareness and engagement. Through sustained and
 systematic external communications over the entire research life cycle, we build awareness and
 engagement with key system stakeholders, highlighting the unique contributions of Ivey's research.
- Positioning for system influence. Building on this outreach platform, we maximize the opportunity for Ivey faculty and their research to influence systems. In Canada, a relatively small group of critical organizations often 'shape the agenda'; we aim to be positioned within these vital networks. Significant publications and events, direct connections, and high-profile multi-stakeholder projects help build this positioning.

Applying the Research Impact Roadmap approach enables Ivey to translate the outcomes of specific research projects and activities – like the Lighthouse projects – into broader momentum and influence for systems change.

We have successfully deployed this approach in several instances:

- Circular Economy. The initial research of the Ivey Circular Economy Lab focused on investigating circular waste exchanges in Ontario and Quebec. The BSV Centre applied the Research Impact Roadmap approach by developing a thought leadership publication for policymakers and business leaders, presenting the critical insights from the research, supported by a sustained communications campaign. This provided the platform for Ivey to expand its portfolio of circularity research and build connectivity with the key organizations setting the circular economy agenda in Canada. This includes playing an influential role with Circular Economy Leadership Canada (co-organizing the national circularity summit), with national standards bodies (guiding the development of new circularity standards), with the Federal Government (policy research on business data needs for scaling circularity); and with major financial institutions (supporting guidelines for financing circularity).
- Conservation Finance. The initial focus of the Sustainable Finance Lab was research linked to the development of Canada's first conversation impact bond in Southwestern Ontario. The BSV Centre supported events and publications to promote the success of the impact bond and secured resources for additional research to scale the bond model, develop a 'market scale' conservation instrument with significant investors, and apply new financial thinking to incentivize agroecology and other nature based solutions. The Ivey Sustainable Finance Lab is now positioned as a critical thought leader in conservation finance in Canada, primarily focused on the centrality of Indigenous leadership.

APPENDIX A - CAP IMPACT FRAMEWORK

OBJECTIVE

To support farmers in specific regions to develop inclusive and regenerative communities of practices that improve their individual and collective performance through peer-to-peer learning, resources sharing, and brokering market opportunities.

| Inputs | Activities and Outputs | Target Outcomes | Impact |
|--------------------------------|--|--|-----------------------------------|
| Program Budget: undisclosed | By July 2025, the CAP pilot will develop and test: • A mapping process assessing | By December 2025 the CAP pilot will result in 15 farmers in Middlesex County establishing a | Climate: Reduced GHG Emissions |
| Faculty: 8+ | competition, collaboration, and connectivity between farmers within the same county. | community of practice (CoP) to share and adopt production practices that | Biodiversity: Soil health |
| Staff: 2 | A research-informed process for convening farmers to build trusting relationships that | improve ecological outcomes and long-term profitability at both farm- | Social equity: program inclusion |
| RAs/Students: 5 | enable sharing and collaboration (a 'community of practice'). | level and community level. | Economic benefits: Quantified |
| Key Partners: undisclosed | A digital platform for farmers to connect and share virtually. | By December 2026, the CAP pilot will support the Middlesex County farmers | savings/benefits (\$) |
| | By December 2026, the CAP will generate: | to establish their own governance structures and | |
| | A toolkit of excellence for replicating CAP across counties | processes to meet the shared objectives of their | |
| | Scientific papers documenting a) ways to improve the economic competitiveness of agroecology; b) how | CoP. The CAP project will also establish a further CoP in at least one other county in Ontario and/or Quebec. | |
| | communities theorize their future. | By December 2027, the | |
| | By December 2027, the CAP will generate: | Middlesex CoP will become self-governing (i.e. | |
| | Scientific papers documenting a) how to catalyze collective action in Agriculture; b) governance structure of well- functioning communities of practice. | operating without support from Ivey). The second cohort of CoPs in other counties will have established their own governance structures and processes. | |

APPENDIX B - STP IMPACT FRAMEWORK

OBJECTIVE

To mobilize a change-ready group of leading companies to co-create procurement and financing frameworks that accelerate progress towards a desirable future Canadian agri-food system.

| Inputs | Activities and Outputs | Target Outcomes | Impact |
|---|--|---|---|
| Program Budget: undisclosed Faculty: 1+ Staff: 2 RAs/Students: 2 | Initiative Process: By March 2026, the Initiative will complete the following engagement activities with key stakeholders from the Canadian agri-food system: 20+ stakeholder interviews 4-5 focus groups 3+ company consortium | By March 2026, 8-10 change-ready* companies in the Canadian agri-food system define requisite modifications in procurement and financing frameworks to accelerate the adoption of regenerative and inclusive agriculture. | From consortium members: Resilient supply chain operations. Reduction of Climate Impacts and increase in Biodiversity and social equity in their Scope 3. |
| Key Partners: undisclosed | workshops Company consortium: By April 2025, convene a group of 8-10 change ready* companies. Report Outputs: By March 2026, the following outputs of the initiative will be presented in published reports: | *Change ready: I. Committed to consider adoption of near-term changes in practices and willing to evaluate more fundamental long- term changes to strategy and business model. | |
| | Characterization of the desired attributes of future sustainable Canadian agrifood system Framework for evaluation of pathways towards a desired future system. Definition of changes in financing and procurement practices to accelerate adoption of regenerative and inclusive agriculture practices. | II. Open to co-creating new models and approaches with other motivated stakeholders. Additional criteria: i. Connectivity with SW Ontario (CAP Pilot) ii. Collectively 10-15% market share in target sectors | |

APPENDIX C - REA IMPACT FRAMEWORK

OBJECTIVE

To equip nascent entrepreneurs with systems thinking tools that help to successfully accelerate their economic growth and positive contributions to regional communities and nature through eco-effective solutions.

| Inputs | Activities and Outputs | Target Outcomes | Impact |
|---|---|---|--|
| Program Budget: | Regenerator Program: | By December 2025, support | Climate: Reduced GHG |
| undisclosed | By December 2024, the Regenerator program within | the acceleration of 8+ agri- food ventures through the | emissions |
| Faculty: 10+ | the Western Accelerator will develop and test additional programming for ventures | Western Accelerator that have adapted their business model to enhance ecological and social | Biodiversity: soil health improvements, more better nutrients cycling |
| Staff: 3+ | focused on enhancing their firm ecological and social | performance. | and water cycling. |
| Key Partners: Morissette Institute for Entrepreneurship | performance and system contribution to a more regenerative and inclusive agrifood system. | | Social equity: program inclusion |
| | Venture Participation: | | |
| | By December 2024: 4 ventures | | |
| | By December 2025: 8+ ventures | | |

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