

ARRELL FOOD INSTITUTE STRATEGIC PLAN

2023 – 2028

PART 1

VISION, GOALS AND VALUES

Reimagining the Future of Food



“The future of food depends on immense collaboration and engagement. Over the past five years, Arrell Food Institute has created a foundation for research, thought leadership, learning and cross-sector dialogue and partnerships. This plan builds on the impacts of this work and sets a path forward to achieve even more. Thank you to everyone who contributed to this plan, for providing your input, guidance and expertise and for your support of Arrell Food Institute and the role it has in global food systems.”

**Evan Fraser, Director,
Arrell Food Institute at
the University of Guelph**

The future of food is complex. The number of hungry people is at record heights, food prices are higher than ever, and some ways of producing and processing food contribute to climate change, environmental damage, and foodborne illness. At the same time, the potential of innovation, governance, and collaboration to solve these problems has never been greater.

The future of food intersects with the foundations of everyday life — health, climate change, political stability, social justice, and economics. We are at a pivotal moment in the history of food. It is imperative that we learn the lessons from the global pandemic about the fragility of our food systems, so that society can come out of the current situation stronger. To do so, a shared vision and commitment to a sustainable food strategy are required.

Arrell Food Institute (AFI) is uniquely positioned to be at the forefront of this continually evolving global discussion. With a commitment to being a trusted convener, AFI bridges the latest rigorous knowledge with multiple perspectives beyond the academic environment. This creates opportunities for multi-faceted discussions and debates that can inform a reimagined future for food and food production around the world. By embracing many viewpoints, synthesizing them to find common ground and sharing those insights broadly, AFI is primed to be an instrumental force in defining the future of food around the world, including new approaches and innovations in food production, agriculture, and ag-technology.

Being anchored at the University of Guelph (U of G), one of Canada’s top research-intensive, comprehensive universities, allows AFI and U of G to achieve more together. The tentacles of AFI’s work reach into faculties, departments, and other initiatives across campus. More globally, AFI recognizes its work is an important contributor in support of the One Health concept — healthy ecosystems, healthy animals, healthy humans — all of which are inextricably linked to food safety.

Canada is a recognized leader in food systems. This leadership cannot be taken for granted, and AFI is committed to doing its part to maintain and build Canada’s leadership position globally, which benefits Canadians first and foremost, builds trust, and helps inform change around the world. With a multi-disciplinary team, that uses transdisciplinary approaches, AFI is primed to change the way Canadians, and people around the world, think and talk about food.

Shared Vision

A sustainable, reliable, and just food system.

Collective Goal

Informing resilient and sustainable global food systems based on a rigorous and comprehensive understanding of the latest evidence.

Values

Agile
Bold
Collaborative
Evidence-based
Inclusive
Informed
Interdisciplinary

Defining Arrell Food Institute's Unique Niche

AFI will continue to generate rigorous research-based knowledge, train the next generation of global leaders with a focus on the Arrell Scholars and facilitate multi-disciplinary opportunities, in direct alignment with its academic agenda.

To extend its reach beyond the walls of academia, AFI will convene discussions and debates among a global suite of participants to further the dialogue on food. Additionally, AFI wants to make the most of being located in Guelph and contributing to our community, city and municipality as our starting point to inform how to scale our work nationally and internationally.

Building on its reputation as an important contributor and knowledge leader, AFI will actively bridge new knowledge and understanding of emerging global trends with current discourse locally, nationally and internationally. In many ways, this starts within the culinary and hospitality industries where people unite around food, where food advocates express their vision for a sustainable future, and where people contemplate food in new and interesting ways. AFI is committed to mobilizing action and informing policy, industry and community environments that support a new, reimagined safe and sustainable future of food that can benefit people around the world.

AFI is unique, and there is no one comparator organization against which AFI could benchmark its progress. However, the Boundary Organization framework (Appendix B) can offer inspiration for assessing AFI's progress in different aspects of work.



A strong foundation of knowledge and expertise.



Ability to convene diverse perspectives across the continuum of food.



Educating and supporting emergent scholars and leaders in food.



Mobilizing knowledge into action — policy, government, regulatory, and front line practice.

Arrell Food Institute's Role

Through consultations with members of the extended AFI community as part of the process to establish this renewed strategic plan, we heard that AFI means many things to many people. In working with our partners, we commit to trying to live up to their expectations that AFI functions as a/an:

- **Advisor**
Providing insights and recommendations based on rigorous knowledge and continuing to bring contributors together to inform the future of food
- **Convener**
Bringing together contributors from across the continuum of food and food production for important, challenging conversations
- **Educator**
Training the next generation with the unique skills and knowledge to be innovative leaders in the future of food and providing practical learning opportunities (policy fellow)
- **Innovator**
Generating new, rigorous knowledge to inform progress and transformation in the food and agri-food sectors
- **Integrator**
Creating opportunities for multi-disciplinary interactions
- **Leader**
Sharing rigorous understanding to inform policy and influence change, and identifying new trends and challenges
- **Mobilizer**
Sharing information and findings in accessible formats to mobilize knowledge

Bringing it Together

To bring these themes together, and provide a roadmap for the next five years, AFI puts sustainable food systems at the core of its enterprise. This is depicted as the heart of our work in Figure 1. Next, we have our strategic approaches, which are to create new knowledge, convene collaborative discussions, and prepare future leaders. Third, we commit to working in our high impact topics that have global relevance, which are food and community, food and producers, food and businesses, and food and consumers. Finally, within each of these high impact areas each of AFI's research chairs will lead a signature project. This basic outline also provides the structure for the rest of this report.

Note: AFI will continue to deliver on its core activities (Arrell Chairs, Arrell Scholars, Arrell Food Summit and Arrell Global Food Innovation Awards). This strategic plan includes them in the new way of looking at our work. The core activities are presented in Appendix A.

PART 2

STRATEGIC APPROACHES

**Creating New Knowledge,
Convening Collaborative Discussions,
Preparing Future Leaders**

At this moment of change, we need innovative, creative, internationally credible, data-driven thinking to bring us into the future – one that doesn't look this bleak. Arrell Food Institute (AFI) is committed to three strategic approaches as a comprehensive way to tackle this complex and global problem. When all these approaches come together, we are closer to having multi-faceted solutions to inform sustainable food systems that can be realized locally, nationally and around the world. **AFI's three strategic approaches are:**

Strategic Approach 1

Create new knowledge to inform sustainable food systems

AFI will be at the global forefront of generating new knowledge and a rigorous understanding of sustainable food systems locally, nationally and internationally. Food is essential to life, but a lot of food growth and production are not sustainable or environmentally friendly. New approaches are needed to strengthen local food supply chains, inform safe food production practices and minimize food disruptions by informing agri-food policy. Consideration also needs to be given to the role of ag-tech in food innovation and addressing critical issues such as food sovereignty, food security, food safety and food waste. To create an informed future of food production, we need innovative approaches to (but not limited to) farming, fisheries and technological advances, soilless agriculture, improved mass-produced high quality food practices and carbon-optimizing agriculture.

Strategic Approach 2

Convene collaborative discussions and mobilize action on food

AFI will continue to convene important discussions and debates to tackle wicked and complex food system issues. Based on principles of inclusivity, AFI will embrace many perspectives to inform the discourse. With a commitment to considering the impact of conflicts, climate change, contagious diseases and contaminants, AFI will be known for its ability to disseminate the latest research and knowledge and mobilize into meaningful change locally, nationally and around the world. AFI will proactively share evidence to inform policy, industry and community approaches that support a sustainable, safe and reliable future of food.

Strategic Approach 3

Prepare leaders to advance the future of food

AFI will continue to support and train the next generation of leaders in food by offering a premier student experience through the Arrell Scholarships. AFI embraces the value of multi-disciplinary collaboration and meaningful partnerships with industry, government and NGOs to offer a consummate learning experience. With real-world experience, Arrell Scholars and graduates will have the depth of knowledge, practical experience and mindset to be at the forefront of leading and sustaining change across the food system and beyond.

PART 3

**HIGH IMPACT
TOPICS AND
SIGNATURE
PROJECTS**

As depicted in Figures 1 and 2, Arrell Food Institute (AFI)’s strategic approaches aim to work across the food system — from soil to fork — covering the following **high impact topic areas**:

→ **Food and Community**

Food is central to the health of people, communities, and our planet. By exploring the links to sustainability, culture, and society, AFI will be working to create the foundation of better nourished communities now, and in the future.

→ **Food and Producers**

Meeting the needs of the human population in more sustainable ways, that are safe and uphold the quality of the food, is critical for the future of food systems. AFI will continue to explore new ways to protect the planet, while providing safer food that retains its nutritional value, all while paying attention to new technologies and approaches to farming and food production.

→ **Food and Businesses**

Creating and delivering more food with less waste is imperative to the efficiency, value and sustainability of supply chains, and the profitability and economic viability for all contributors across the food chain. AFI will continue examining these issues and bringing them to the forefront, within Canada and globally.

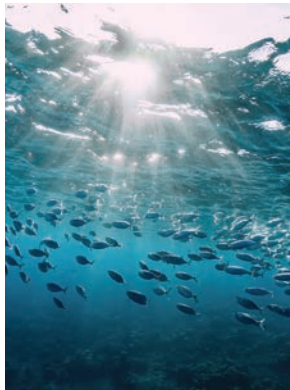
→ **Food and Consumers**

Canada produces and exports large amounts of food to feed people locally, nationally and around the world. Working to identify pressure points in the food system that can be resolved by policy, markets, or awareness will improve the way global food networks offer safe, healthy, nutritious, and affordable food for all consumers.

By focusing on one **signature project** in each of these areas, each of which is led by one of the Arrell Chairs, AFI will significantly advance the understanding of sustainable food systems to achieve its vision and collective goal as demonstrated in Table 1.



Table 1. AFI's Signature Projects



HIGH IMPACT TOPIC AREAS	PROJECT DESCRIPTION
<p>Food and Community</p> <p>Signature Project Local Catch Canada <i>Led by Phil Loring</i></p>	<p>AFI is supporting the emergence of a new Canada-wide community of practice among seafood harvesters, entrepreneurs, and other professionals. This will be a collaborative forum, with meaningful Indigenous participation, for re-envisioning and elevating the role of locally sourced, ethical, and sustainable seafood in community food security across Canada.</p>
<p>Food and Producers</p> <p>Signature Project Canadian Alliance for Net-Zero Agri-Food <i>Led by Evan Fraser</i></p>	<p>AFI is a founding partner in an emerging coalition made up of key NGOs, private sector partners and supported by a range of producers and commodity groups to create a coalition devoted to removing 50 megatonnes of greenhouse gas emissions from the Canadian agriculture sector.</p>
<p>Food and Businesses</p> <p>Signature Project Canada's Food Price Report <i>Led by Simon Somogyi</i></p>	<p>AFI will test and improve AI and machine learning forecasting tools to enhance Canada's Food Price Report. The information will continue to be an important resource to support people in planning their household budget, industry in forecasting costs and revenues, and government in developing relevant and timely policies such as those that support food security. By leveraging AFI's leadership, AFI is working to create a food and ag-tech stream of the MBA program at the Gordon S. Lang School of Business and Economics at the University of Guelph to support emerging and innovative leaders in the food sector.</p>
<p>Food and Consumers</p> <p>Signature Project Food Quality and Safety <i>Led by Maria Corradini</i></p>	<p>AFI's exploration of food safety and quality will create a better understanding of how the current food production practices (e.g. growing conditions) and processes (e.g. baking) affect toxicant content in foods. By understanding how, when and what generates the toxicants, AFI scientists can help mitigate their prevalence in foods by testing innovative and new production processes, such as 3D printing prototyping or using different ingredients, without losing the quality or nutrition of mass-produced food.</p>

Figure 1. AFI's Vision, Strategic Approach, High Impact Topic Areas and Signature Projects

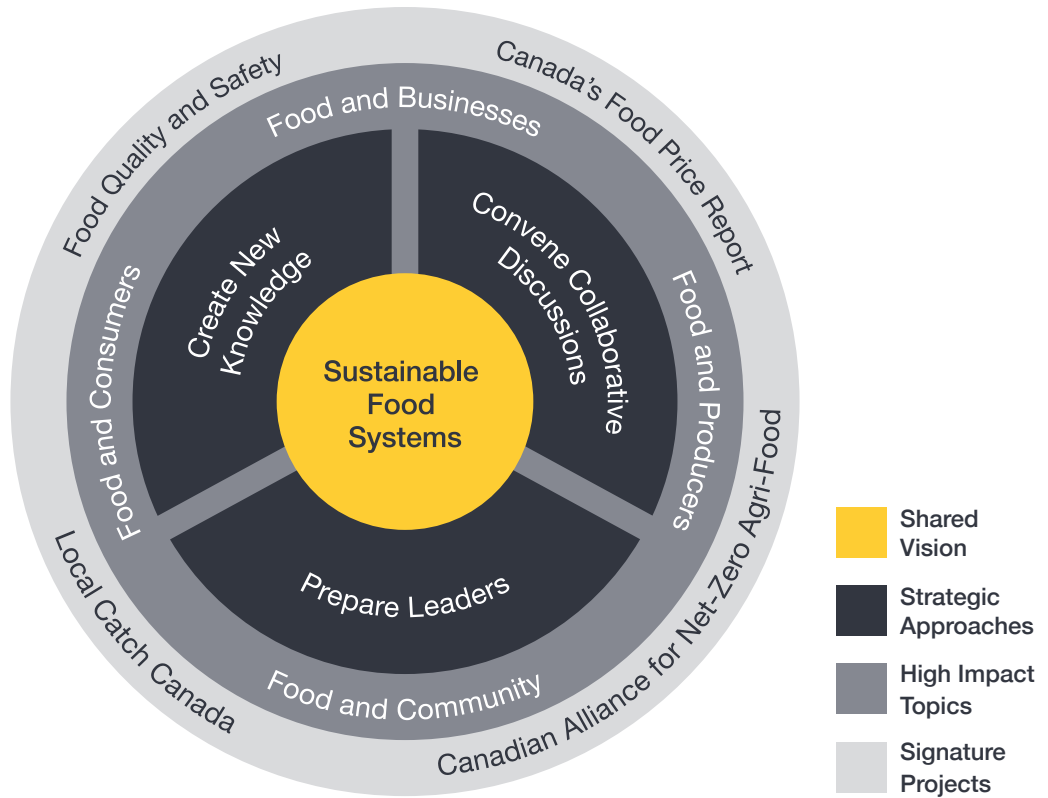
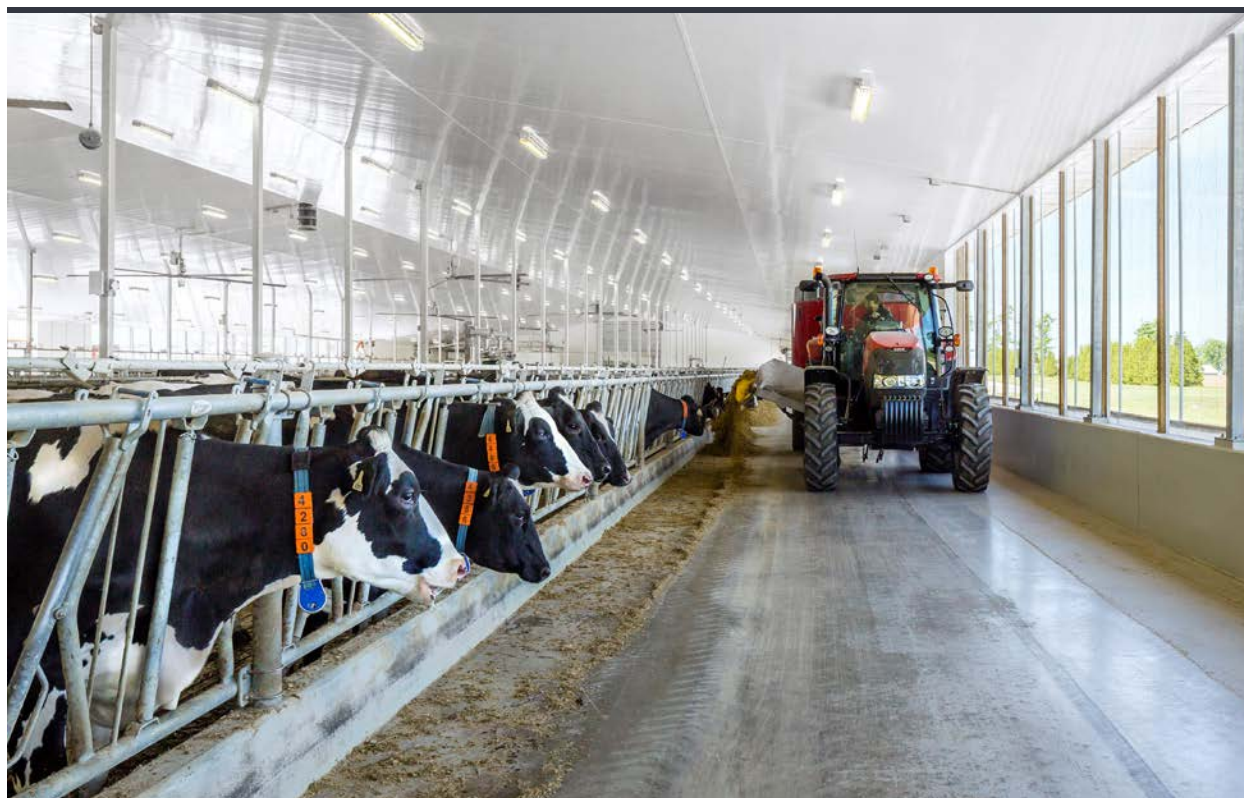


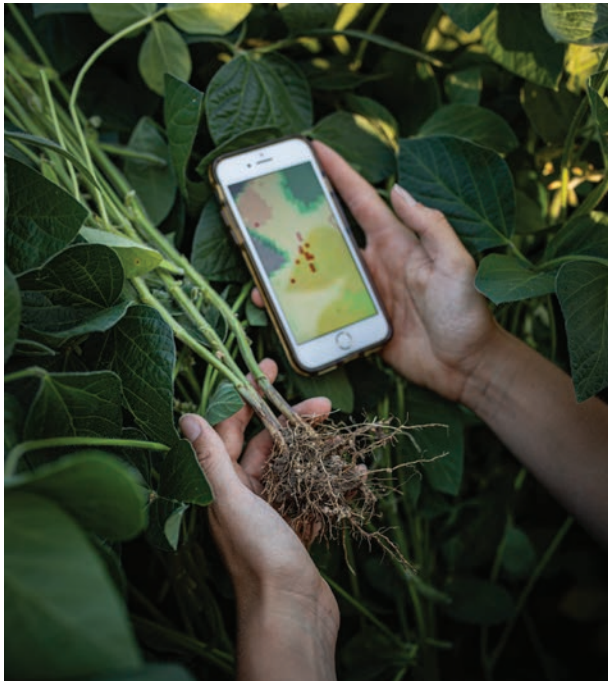
Figure 2. Map of AFI's Strategic Approaches, High Impact Topic Areas and Associated Signature Projects

Strategic Approach	Create New Knowledge to Inform Sustainable Food Systems	Convene Collaborative Discussions and Mobilize Action on Food	Prepare Leaders to Advance the Future of Food
High Impact Topic Areas and Associated Signature Project:	Food and Business: Canada's Food Price Report		
	Food and Community: Local Catch Canada		
	Food and Consumers: Food Quality and Safety		
	Food and Producers: Canadian Alliance for Net-Zero Agri-Food		
Description of Strategic Approach:	<p>Generating research to create an informed future of food production, including (and not limited to) farming, fisheries and technological advances, soilless agriculture, carbon optimizing food systems</p> <hr/> <p>Informing agri-food policy and practice</p> <hr/> <p>Addressing critical issues such as food sovereignty, food security, food safety, food waste, and supply chain issues</p>	<p>Convening important conversations to tackle wicked and complex food system issues: conflict, climate change, contagious diseases and contaminants</p> <hr/> <p>Mobilizing and disseminating the latest in rigorous, interdisciplinary research</p> <hr/> <p>Sharing evidence to inform policy, industry and community approaches that supports a sustainable, safe, and reliable future of food</p>	<p>Attracting, training, and preparing future leaders in food (premier student and learning experience) with practical experiences, skills and depth of knowledge to lead the future of food</p> <hr/> <p>Facilitating multi-disciplinary collaboration and engagement of food leaders</p> <hr/> <p>Developing meaningful partnerships to advance shared goals and priorities that address the future of food</p>



PART 4

**FROM STRATEGY
TO ACTION**



**THE FOCUS ON THE
FUTURE OF FOOD
HAS NEVER BEEN
MORE IMPORTANT
THAN IT IS TODAY.**

Arrell Food Institute (AFI) will map out how to operationalize and measure the impacts of the strategic plan and communicate and tell the impact story of the work of AFI.

In addition to working in the way outlined in this report, AFI will undertake specific actions for each strategic area of focus. A proposed timeline for implementation is represented in Figure 3 and are further detailed below.

Figure 3. Proposed Implementation Timeline for Priority Action Areas

2024–2026 ↓

Planning for continued diversity, equity and inclusion across AFI and beginning to implement enhanced approaches

Planning for scholar program enhancement and beginning to implement changes

Broadening of the awards program with goal to implement changes for next award cycle

2026 –2028 ↓

Continued implementation of plans to enhance diversity, equity and inclusion

Continued implementation of scholar program enhancements

Ongoing evaluation of strategy, activities and signature projects

Sustainability and succession planning for AFI

Continuing to play a neutral convenor role
Enhancing the profile of AFI by featuring activity from the full breadth of expertise from AFI affiliates



Create New Knowledge to Inform Sustainable Food Systems

Create a sustainability plan for AFI, including succession planning considerations:

- Build an integrated strategy with the University to collectively work towards advancing sustainable food systems, leveraging all the contributors across campus, and driven by AFI.
- Operational and financial planning is required to ensure the sustainability of AFI beyond the terms of the gift agreement.

Convene Collaborative Discussions and Mobilize Action on Food

Continue to play a neutral convener role:

- In its first five years, AFI has secured its role as a neutral convener that can find common ground across diverse perspectives.
- AFI will continue to be seen as a generator and mobilizer of knowledge on food across Canada and the world.

Enhance the profile of AFI by featuring activity from the full breadth of expertise from AFI affiliates:

- Build the reputation of AFI based on a broader range of contributors from across the network.
- Expand the spokespeople and experts that represent AFI in the media, on social media and in contributing to thought leadership, policy, and industry forums.

Continue embracing diversity, equity, and inclusion across AFI:

- Nurture participant outreach by asking ‘who else should be here?’ in convened conversations.
- Formally articulate commitment to actioning the relevant calls-to-action in the Truth and Reconciliation Commission report.



Prepare Leaders to Advance the Future of Food

Continue to elevate the Arrell Scholars program:

- Augment AFI's staff team to enable further systematic policy and industry opportunities for scholars and alumni.
- Provide mentoring and networking opportunities for current students.
- Provide industry/research placement opportunities for current students to gain practical and real-world experience in future areas of interest.
- Create an Arrell Scholar Alumni Affinity Program (in collaboration with Alumni Affairs and Development):
 - Networking events/groups
 - Educational opportunities
 - Mentoring structure
- Creating regular and formalized opportunities (program of events) for scholars, alumni, chairs and other experts to collaborate across disciplines on timely topics from across the food system.

Broaden the Arrell Global Food Innovation Awards program to focus on young academics:

- Maintain the community award.
- Redefine the research award to increase the impact of the award:
- Encourage early career researcher nominations

Appendix A: Arrell Food Institute's Activities, Programs, Initiatives, and Potential Impacts

STRATEGIC APPROACHES	ACTIVITIES, PROGRAMS, AND INITIATIVES	POTENTIAL IMPACTS
<p>Create New Knowledge to Inform Sustainable Food Systems</p>	<p>Ag-tech innovation</p> <hr/> <p>Cellular agriculture</p> <hr/> <p>Food sovereignty, food security, food safety, food production and sales, and food waste</p> <hr/> <p>Food consumer research and supply chain innovation</p> <hr/> <p>Generation of novel techniques to curtail problems in food manufacturing and monitoring</p> <hr/> <p>Local Catch Canada</p> <hr/> <p>Regenerative farming transitions research in Ontario</p>	<p>An ag-tech innovation policy for Canada</p> <hr/> <p>Canadians will be less reliant on imported food, and are more self-sufficient</p> <hr/> <p>Publications in peer reviewed journals (citations)</p> <hr/> <p>Reduction in food waste</p> <hr/> <p>World's first textbook on cellular agriculture</p>
<p>Convene Collaborative Discussions and Mobilize Action on Food</p>	<p>Arrell Food Summit</p> <hr/> <p>Business and Technology Forum</p> <hr/> <p>Canada's Food Price Report</p> <hr/> <p>Arrell Food Cinema Series</p> <hr/> <p>Deep Dish Dialogues</p> <hr/> <p>Development of a national strategy and associated recommendations to enable disruptive ag-tech</p> <hr/> <p>Eat + Greets</p> <hr/> <p>New basic income policy in agri-food and seafood sectors</p> <hr/> <p>Research and contributions to peer reviewed journals op-eds</p> <hr/> <p>Spotlight reports</p>	<p>Engagement of community (from farm to fork) in AFI events</p> <hr/> <p>Generating the latest knowledge on food costs to inform change</p> <hr/> <p>Agriculture innovation contributing to emission reduction targets</p> <hr/> <p>Publicly shared research, invitations to share/present research and media requests</p>
<p>Prepare Leaders to Advance the Future of Food</p>	<p>Arrell Global Food Innovation Awards</p> <hr/> <p>Enhanced Arrell Scholar program (including alumni program)</p> <hr/> <p>Enhanced UNIV 6050 course</p> <hr/> <p>Guelph food policy fellowship program</p> <hr/> <p>Loblaw Net-Zero Food Systems Challenge</p>	<p>Scholars as future leaders (where scholars end up after completing the program)</p> <hr/> <p>Financial awards distributed through scholarships</p> <hr/> <p>Influencing the standard skill-base required in the food sector (i.e. changing expectations of employers)</p>

Appendix B: Strategic Framework for Reference

A Boundary Organization is a “bridging institution which links suppliers and users of knowledge and recognizes the importance of location-specific contexts.” Ingram and Bradley define boundary organizations as “situated between different social and organizational worlds such as science and policy.” Moreover, successful boundary organizations do three things:

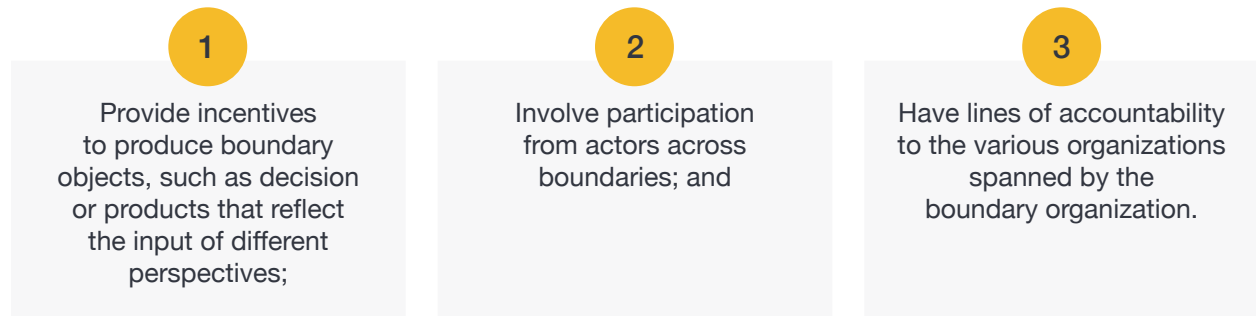
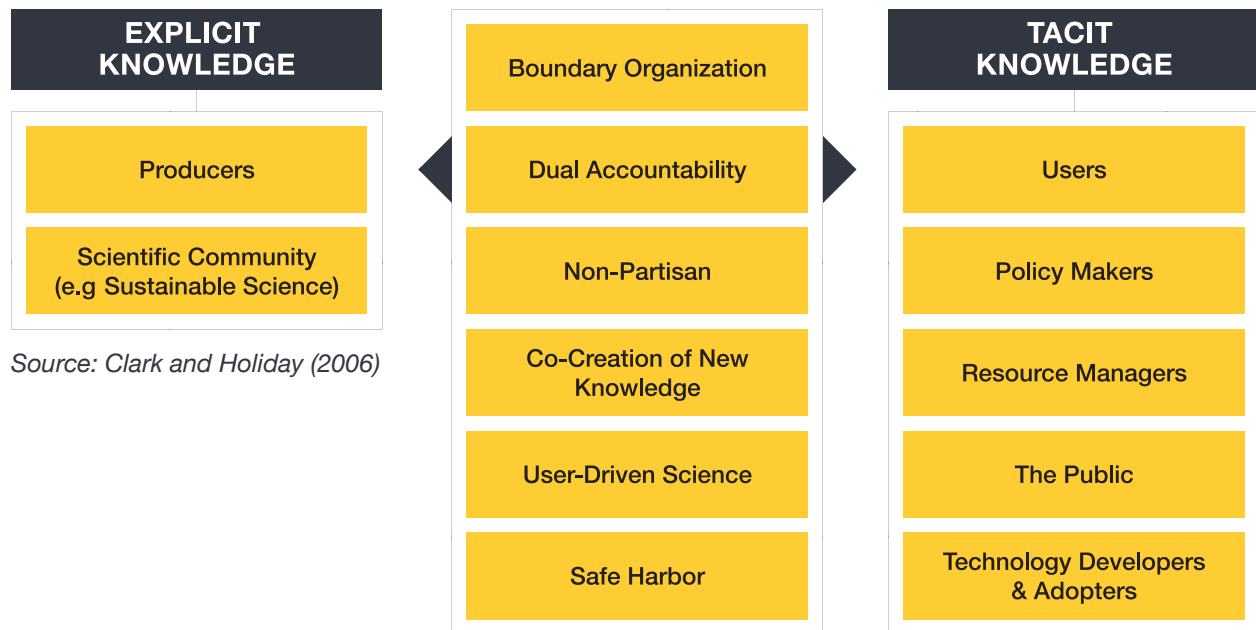


Figure 2. Boundary Organizations: Linking Knowledge with Action



Source: Clark and Holiday (2006)

Ruttan, V.W., D.E. Bell, and W.C. Clark. 1994. “Climate-Change and Food Security— Agriculture, Health and Environmental Research.” *Global Environmental Change-Human and Policy Dimensions* 4(1):63–77.

Ruttan, V.W., D.E. Bell, and W.C. Clark. 1994. “Climate-Change and Food Security — Agriculture, Health and Environmental Research.” *Global Environmental Change-Human and Policy Dimensions* 4(1):63–77.

Ingram H., and B. Bradley. 2006. “Water Sustainability: Policy Innovation and Conditions for Adaptive Learning.” Paper presented at the Michigan State University Sustainable Michigan Endowed Project Academy, Dearborn, MI, 18–19 November.

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