

FEEDING THE FUTURE WITH CANADIAN TECHNOLOGY

Briefing Note for Investors

The Opportunity: Investing in Canadian Ag-tech

With a rising global population, the demand for efficient and sustainable food production is increasing. Agriculture and food technology (ag-tech) can help meet this demand by reducing greenhouse gas emissions, solving labour shortages, sparing land for biodiversity, reducing food costs, and improving global food security.

Canada, known for its vast arable land, advanced farming practices, and diverse climate zones, can become a global leader in ag-tech innovations that improve sustainability, productivity, and economic growth. To fully realize this potential, we must address barriers that impact how companies scale, adopt, train, and recruit for ag-tech. Canada needs a coordinated approach from government, industry, academia, and NGOs to lead in ag-tech innovations.

Ag-tech could unlock up to \$30 billion of economic opportunity for Canada.¹

Why is Canada a great place to invest?

Canada has one of the most trusted and stable regulatory environments on the planet, leading to a well-regarded, high-quality, and safe Canadian agri-food brand globally. Products that pass through Canada's stringent food safety and quality standards, employment law, and environmental regulations are trusted by consumers and investors alike.

We were 6th in the world for private investment in 2022, with 102 deals totaling USD 1.2 billion,² and 9th in the world in 2023, with total deals of USD 416 million.³ Despite recent slowdowns, ag-tech in Canada still saw a 16% growth in private equity investment between 2022 and 2023.^{4,5}

Canada also has well-established business risk management programs, including crop insurance, which help reduce risks associated with crop failures. Altogether, these assets contribute to a robust regulatory environment that builds confidence for investors looking for opportunities in sustainable ag-tech research and development.

How can ag-tech support Canada's environment, economy and society?

Technologies like livestock feed additives, precision agriculture, and biodigesters are already showing promise in reducing greenhouse gas emissions.

Advanced sensing, imaging, and analytical techniques are improving our ability to measure and predict changes in soil carbon.

Robotics, automation, autonomous equipment, and artificial intelligence (AI) can all contribute to solving agri-food labour shortages.

Evolving AI-powered precision agriculture and controlled environment production technologies are making it possible to increase marketable output per acre, sparing land for biodiversity.

More efficient production coupled with technologies to improve logistics and reduce food waste can contribute to reducing food costs and improving global food security.

Why invest in ag-tech?

Investing in ag-tech is an investment in food security and sustainable development. Ag-tech that promotes sustainable, resilient practices is essential for ensuring long-term agricultural productivity and supporting adaptation to future impacts of climate change and other environmental challenges. Technologies that reduce carbon emissions, enhance water and soil conservation, reduce the reliance on harmful chemicals, and promote biodiversity are not only crucial for sustaining agricultural productivity in the context of climate change, but they also represent high-potential avenues for generating substantial financial returns.

The agri-food system is fundamental to Canada's social fabric, to environmental sustainability, and to the economy. **Ag-tech solutions that improve crop and livestock resilience can yield multifaceted benefits:** strengthening food security, generating employment, revitalizing regional economies, and uplifting the livelihoods of farmers and agricultural communities. For investors, this means that investing in Canadian ag-tech not only drives innovation but also contributes to societal well-being, creating a legacy of positive social impact.

Ultimately, companies and funds with a strong ESG (environmental, social and governance) track record have shown to be more competitive, leading to higher profitability and greater returns on investment. In a market where consumers and stakeholders are more environmentally conscious than ever, investing in ag-tech that prioritizes sustainability offers investors the opportunity to benefit from both strong financial performance and the growing demand for responsible business practices.

Investing in sustainable ag-tech is a strategic move that ensures investors' portfolios are not only profitable but also future-proofed against the evolving landscape of global agriculture and environmental stewardship. In order to support and accelerate ag-tech development in Canada and maximize the return on investment for ag-tech innovations, our report contains several recommendations for investors to make informed decisions and capitalize on the growing opportunities in Canadian ag-tech.

1. Recognize the unique challenges of investing in ag-tech.

Ag-tech entrepreneurs face substantial hurdles in moving from pilot/demonstration scales to commercial technology adoption and dissemination. Some ag-tech – vertical farming, robotics and automation, and equipment manufacturing, for example – has a high capital expenditures requirement, which can be difficult for early-stage entrepreneurs to secure.

Agricultural innovations, by nature, can also be slower to develop than other technologies, given the relatively slow nature of research with biological systems and the need to align technology testing and validation with annual growing seasons.

Canada's robust regulatory environment supports its trusted global reputation and market success, but it can lead to long delays and enormous expenses for entrepreneurs in having their product approved for market. To boost business survival rates, we need continued and growing support and services for entrepreneurs to navigate these regulatory processes, and we need funding to support entrepreneurs through this process. Supporting policy think-tanks that can further identify agri-food specific business barriers and solutions can also support entrepreneurs.

We need investors to recognize and adapt to these unique challenges of investment in ag-tech, given the numerous benefits and long-term potential returns.

2. Increased patient capital will reduce investment risks.

To reduce ag-tech investment risks, policy instruments should drive investment, particularly increased patient capital for later-stage companies. Ag-tech promises to feed the future, address climate change, and realize untapped economic potential but requires more capital, especially patient capital where returns are slow.

To incentivize patient capital, one strategy is to **tailor investments to sustain the progression of start-ups with incremental funding.** For example, in the United Kingdom, the government developed an instrument to drive investment in high-growth and capital-intensive business and worked with British Business Bank to secure fund assets.^{6,7}

Layered approaches to patient capital investment, such as public-private partnerships, are another strategy to reduce investment risks and increase the success rate of companies moving to full commercialization. Public-private partnerships combine the strengths of both sectors: the research and development capabilities of public institutions and the commercialization expertise of the private companies. This layered approach not only shares the financial burden but also accelerates the development and adoption of new technologies. It offers long-term support throughout a business's development, streamlines response to industry needs, and leverages investment from both government and industry sources.

3. Partnerships with subject-matter experts are crucial.

Collaborating with academic institutions, agricultural advisory networks, research organizations, and industry specialists can significantly reduce risks for investors and entrepreneurs. These partnerships provide access to cutting-edge research, advanced technologies, and valuable insights into market trends and regulatory changes.

Subject-matter experts can assist in the validation of new technologies, ensuring they are effective, market-ready, generate real-world impact, and support technology transfer.⁸ Their expertise can help navigate the complex regulatory landscape, accelerating time-to-market for innovative solutions.

Building a network of knowledgeable partners can enhance the credibility of ag-tech startups, attracting additional investment and facilitating growth. These collaborations can also provide ongoing support and mentorship, increasing the likelihood of long-term success.

Conclusion

Canada has the potential to lead the world in ag-tech innovations, but we need to act now to realize this potential. What we need most is a coordinated effort from all sectors – all working together to set priorities and goals, and develop the programs, policy, human resources, and infrastructure that will accelerate Canada's agri-food innovation ecosystem.

By investing in ag-tech, you are not only tapping into a lucrative economic opportunity but also contributing to Canada's leadership in global food security and sustainability.

For more information:

[Feeding the Future with Canadian Technology Final Report](#)



References

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