



Corporate Plan

2023-2024

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Executive Summary

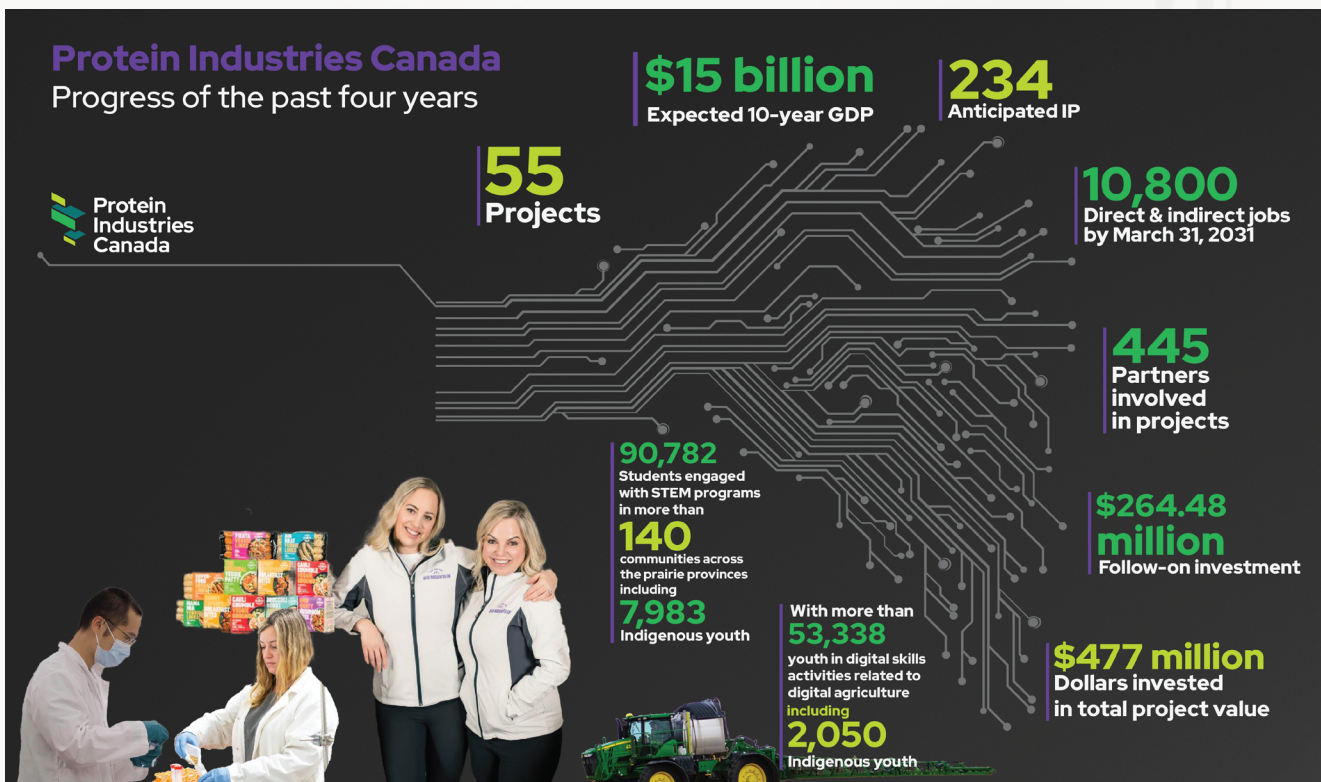
The 2023–24 fiscal year marks the beginning of a new mandate for Protein Industries Canada. With a renewed investment of \$150 million through the Global Innovation Cluster program, along with the continuing investment of \$30 million through the Pan-Canadian Artificial Intelligence Strategy, Protein Industries Canada will continue to drive the growth of Canada’s plant-based food, feed and ingredient ecosystem, and the creation of a \$25 billion sector by 2035.

VISION

Canada is a global leader in plant protein.

MISSION

We invest collaboratively to accelerate innovation and the competitiveness of the Canadian plant-protein sector.



Taking Food Forward

The demand for plant-based food continues to increase. Driven by a growing global population and an expanding middle-class, combined with consumers choosing plant-based foods for health, environmental and animal welfare reasons, it is expected that by 2035 the annual global market will be worth upwards of more than \$250 billion.

Canada has the potential—and is well on our way—to be a global leader in plant-based ingredients and finished food products. Building on our strength as an agricultural powerhouse with more than 28 million hectares of arable land and a leading producer of high-protein crops such as peas and canola, we have opportunity to turn this global demand into a long-term, sustainable economic driver for Canada. In fact, at Protein Industries Canada, we believe that by 2035 Canada will provide 10 per cent of the plant based ingredients to the world – a goal that, when achieved, will contribute upwards of \$25 billion a year to Canada’s economy, supported by 17,000 jobs.

Over the next five years, Protein Industries Canada will focus our work in the following priority areas:

- Global Leadership;
- Ecosystem Evolution;
- Member Prosperity;
- Organizational Relevance; and
- One Team.

Within these themes Protein Industries Canada will build off the success of Fund I to:

- Support the scale-up and success of Canadian companies through the commercialization of Canadian IP;
- Identify and work towards solutions on the gap in scale-up and R&D;
- Increase capital in the sector;
- Strengthen our global position and support international market development;
- Build new relationships to attract investment and new entrants into the ecosystem;
- Further define Canada’s value proposition of plant-based ingredients and food through improved metrics and reporting of sustainability metrics;
- Create opportunities to re-skill and introduce youth, Indigenous peoples and new Canadians to the plant-based food and ingredient sector; and
- Act as one team with a shared vision and passion to strengthen Canada and create benefit for every Canadian.

Protein Industries Canada’s priority for the next five years is to secure the future for Canada’s plant-based ecosystem. An investment into plant-based foods and value-added processing provides tremendous opportunity for Canada, and we are committed to making it a national priority. Never has the discussions around the impacts of climate change and food security been more relevant or timely. Plant-based foods and ingredients are an accessible solution to both, that will also bring sustainable economic growth for Canada.



Building on Foundations

2023-24 Objectives and Actions

The next five years provides an opportunity for Canada to securely cement our position as the global leader in plant-based food and ingredients. It is critical that we are successful in scaling companies, commercializing our technology and increasing our ingredient processing capacity. By focusing on these outcomes, we will build a sustainable and healthy Canada while also contributing a reliable global food supply chain.

Protein Industries Canada will contribute to building a better Canada through:

- **Economic growth:** we will support the prosperity of every Canadian by creating a reliable, sustainable and long-term industry for Canada's economy that will be worth \$25 billion by 2035 and will employ upwards of 17,000 Canadians from coast-to-coast;
- **Reduce GHG emissions:** we will support innovation to decrease GHG reductions related to agriculture and food processing;
- **Scaling Canadian companies:** we will support Canadian companies to grow and be successful, achieving \$25 billion in annual revenue from Canadian innovation and intellectual property (IP);
- **Global impact:** we will anchor Canada as a global force in the plant-based revolution—increasing recognition, investment, sales and leadership;
- **Food security:** we will contribute to domestic and international food security by building out an integrated and resilient value chain that allows Canada to make our own ingredients and food and export high-value, nutritious products to countries around the world; and
- **Economic reconciliation:** we will support the prosperity of Indigenous peoples through meaningful partnerships and mutually beneficial opportunities that lead to shared prosperity.



To reach these outcomes, Protein Industries Canada will:

- Re-balance the distribution of investment to focus on the priority of ingredient processing, the largest value creation opportunity for Canada;
- Earmark investment specific to GHG reduction, while also incorporating specific evaluation criteria and tracking progress towards the net-zero target;
- Support the investment of \$800 million into Canadian businesses;
- Ensure a path to commercialization through comprehensive business and risk assessments;
- Lead regulatory modernization through our Regulatory Centre, focusing on regulations associated with labeling, mandatory fortification and novel food approval;
- Increase investment and focus on total-seed utilization—specifically on innovation related to bio-industrial products that have the potential to reduce single-use plastics and petroleum-based products;
- Diversify our investment portfolio to include the next generation of food products including whole muscle cuts, dairy and egg alternatives, and bakery items;
- Further leverage Fund I investments by stacking IP to accelerate innovation and create new IP assets;
- Build relationships with key international markets to further increase Canada’s global presence and to attract foreign direct investment (FDI) and new customers for Canadian products;
- Continue focusing on re-skilling and introducing youth, Indigenous peoples and new Canadians to the opportunities provided by the agriculture and food-processing sector; and
- Utilize artificial intelligence to help accelerate innovation, support process improvement and to better understand consumer demands, specifically around Environmental, Social and Governance (ESG) factors and nutrition of plant-based food and ingredients.

Protein Industries Canada’s fiscal year 2023–24 priorities fall into five areas of work:

- **Member Prosperity** – Our members are profitable and contributing to Canada’s economy
- **Ecosystem Evolution** – Canada is the preferred place to do business
- **Global Leadership** – Canada is a partner of choice to secure the global food supply chain
- **Organizational Relevance** – Protein Industries Canada is a mainstay of Canada’s innovation landscape
- **One Team** – We have a shared vision and passion to strengthen Canada and create benefit for every Canadian



The following actions will be worked towards in fiscal 2023–24 to reach the annual and long-term corporate objectives:

Member Prosperity

Our members are profitable and are contributing to Canada’s economy

OBJECTIVES	ACTIONS
<p>Protein Industries Canada members commercialize profitable products and services and scale their businesses.</p>	<ul style="list-style-type: none"> • Review the Fund I IP portfolio and identify stacking, cross-licensing and commercialization opportunities • Identify synergies and facilitate partnerships to bring other investment into Protein Industries Canada funded projects • Establish a project portfolio that aligns with our strategic plan and target category spends • Strive to be best in class for project development, assessment, management, reporting and communication to help ensure commercial success • Deliver the Pan-Canadian Artificial Intelligence Strategy (PCAIS) / AI Commercialization program
<p>Protein Industries Canada technology projects create meaningful partnerships for members.</p>	<ul style="list-style-type: none"> • Increase the minimum level of collaboration from two to three industry stakeholders on projects funded by Protein Industries Canada • Strengthen the value-chain approach from genetics through to ingredients and products in collaborative innovation • Ensure that viable project concepts that are not supported by Protein Industries Canada are channelled to alternative funding sources
<p>Protein Industries Canada members have sufficient opportunities to create new collaborations.</p>	<ul style="list-style-type: none"> • Hold a series of member events, workshops and webinars • Increase engagement and usage of the Protein Industries Canada member portal and IP Hub • Revise membership structure to be more inclusive and reflect the diversity of stakeholders within the ecosystem



Ecosystem Evolution

Canada is the preferred place to do business

OBJECTIVES	ACTIONS
<p>Protein Industries Canada members have the information they need to make informed business decisions and to contribute to the growth of the ecosystem.</p>	<ul style="list-style-type: none"> • Measure the progress and identify the next set of priorities on <i>The Road to \$25 Billion</i> (Roadmap) • Review the outcomes of Fund I projects (i.e. asset maps, reports, strategies, market research) and identify opportunities to leverage, share and expand on their findings • Broaden and expand Protein Industries Canada’s 2020 Ernst & Young report to better reflect the diversity of the sector • Deeply understand Canada’s competitive landscape and leverage this information to create awareness amongst decision makers, development agencies and others to increase Canada’s competitiveness
<p>Canada’s regulatory and policy system is responsive and supports innovation and commercialization in the plant-based food, feed and ingredient sector.</p>	<ul style="list-style-type: none"> • Implement the five-year Regulatory Centre strategic plan • Engage with technology projects participants to pro-actively address regulatory hurdles
<p>Protein Industries Canada members have access to the capital they need to scale their businesses.</p>	<ul style="list-style-type: none"> • Provide knowledge of the sector to the capital community • Continue to work with the capital community on investment solutions for ingredient manufacturers • Create meaningful connections between members and the capital community
<p>A labour force and talent pool strong enough to support the growth of Canada’s plant-based food, feed and ingredient sector.</p>	<ul style="list-style-type: none"> • Collaborate to implement the National Workforce Strategic Plan for the plant-based food, feed and ingredient sector • Work to develop technical expertise, PhD and post-doctoral fellowship exchanges with select universities and research institutions



OBJECTIVES	ACTIONS
Protein Industries Canada members have access to research, innovation and scale up infrastructure.	<ul style="list-style-type: none"> • Support companies in navigating domestic and international research and scale-up infrastructure • Collaborate with private sector companies, equipment manufacturers and all levels of government to evaluate and build the business case for a Canadian-based ingredient innovation, scale-up and co-manufacturing facility
Strengthen the value proposition of Canada's plant-based food, feed and ingredient sector.	<ul style="list-style-type: none"> • Refine and measure the sustainability of Canada's plant-based food, feed and ingredient sector • Collaborate with other Global Innovation Clusters and industry to develop a large multidisciplinary project to develop an effective Measurement, Verification and Reporting (MVR) system for environment sustainability for Canadian grown and processed food and ingredients • Explore, define and leverage additional attributes of Canada's plant-based food, feed and ingredient sector to expand its value proposition to industry, government, and consumers; such as its contribution to the health and well-being of Canadians
Under-represented groups benefit from the economic growth of the sector.	<ul style="list-style-type: none"> • Ensure all Protein Industries Canada funded projects contribute to Economic Reconciliation • Build on the most successful talents and skills projects from Fund I (Palette Skills and the Saskatchewan Indian Institute of Technologies (SIIT) micro credential program) to ensure more training for under-represented groups
AI platform technology providers view Canada's agrifood sector as an opportunity.	<ul style="list-style-type: none"> • Communicate the potential of Canada's plant-based food, feed and ingredient sector as a growth opportunity for AI-technology companies • Create meaningful connections between AI providers and Protein Industries Canada members



Global Leadership

Canada is a partner of choice to secure the global food supply chain

OBJECTIVES	ACTIONS
<p>Canada’s value proposition for plant-based food, feed and ingredients is understood in key markets.</p>	<ul style="list-style-type: none"> • Implement a more strategic and deliberate approach to international events and conferences that align with Protein Industries Canada’s International Engagement Strategy • Plan for and execute on the Plant Forward 2024 • Support incoming trade and innovation missions
<p>Protein Industries Canada members experience meaningful collaboration with international partners.</p>	<ul style="list-style-type: none"> • Explore and facilitate a collaborative research and development call with Innovate UK and Wageningen University and Research (Netherlands) • Support members in international research and development collaborations
<p>Protein Industries Canada is viewed as a strong contributor to national and international initiatives.</p>	<ul style="list-style-type: none"> • Participate in national initiatives such as the implementation of The Next Green Revolution and the Advisory Committee of the U of Guelph’s Feeding the Future with Canadian Technology • Actively participate as a member of the Canadian delegation for COP28



Organizational Relevance

We are a mainstay of Canada's innovation landscape

OBJECTIVES	ACTIONS
<p>Protein Industries Canada is a going concern beyond March 31, 2028.</p>	<ul style="list-style-type: none"> Identify additional sources of long-term funding for Protein Industries Canada supported investments Evaluate additional sources of revenue to support operations Ensure excellence in program delivery to create opportunities for additional programming

One Team

We have a shared vision and passion to strengthen Canada and create benefit for every Canadian

OBJECTIVES	ACTIONS
<p>A Board of Directors that establishes the strategic direction and assists in execution.</p>	<ul style="list-style-type: none"> Ensure the board has the tools and information needed to provide strategic direction Support the board to be champions for the organization
<p>Protein Industries Canada programs and services are delivered in an efficient and effective manner.</p>	<ul style="list-style-type: none"> Implement best practices, lessons learned and new technologies to improve efficiency and member experience Ensure a secure IT environment that will respect the integrity and confidentiality of information
<p>Protein Industries Canada is a values-based, diverse and inclusive organization where differences are acknowledged and celebrated.</p>	<ul style="list-style-type: none"> Allocate two per cent of base salaries to professional development activities Improve formal communication within the organization Approach our work with a cross-functional, one-team approach Be intentional in fostering an inclusive workplace environment Ensure job postings are more accessible to potential Indigenous candidates



Making Progress: Building a Healthy and Sustainable Canada

Results on Objectives for 2022–23

In the final year of Protein Industries Canada’s initial mandate, the focus was the successful management of projects to completion while also increasing the profile of Canada’s plant-based sector, to ensure continued growth of the ecosystem. This was achieved with the federal government’s initial investment of \$173 million being fully leveraged through 55 technology and capacity building projects. In addition, both the initial job and GDP goals set out at the start of the program were surpassed. In September 2022, Protein Industries Canada launched our inaugural call for projects under the Pan-Canadian Artificial Intelligence Strategy program stream. This program was established to help technology, ingredient and food companies use AI to improve the effectiveness of ingredient and food formulations.

In addition to meeting and surpassing every metric of the program, significant gains were made in building the Canadian ecosystem and establishing Canada as a pivotal player in the global marketplace. In November 2022, Protein Industries Canada, along with Pulse Canada and Plant-Based Foods of Canada, hosted the first-ever, Canadian-led international event, Plant Forward, with more than 200 delegates from 11 countries attending and engaging with key Canadian players. Protein Industries Canada also attended key international events including Future Food-Tech in New York and the UK, COP27 and Food Ingredients Europe in France. Closer to home, connections were made with the capital community with two capital-focused round-tables being held—one in Calgary, Alberta and one in Toronto, Ontario. Throughout the year, Protein Industries Canada hosted 23 in-person and virtual events with more than 1,800 attendees.



In 2022–23, Protein Industries Canada:

- Reached a total project value of more than \$461.1 million with industry contributions of \$299 million;
- Approved nine technology projects with a total project value of \$55.4 million;
- Approved five capacity building projects with a total project value of more than \$4.4 million;
- Developed 663 new products, processes and services since the beginning of Fund I;
- Determined it will create 10,800 jobs by March 31, 2030 through co-investment projects; and
- Determined it will contribute \$15 billion to Canada's GDP by 2030 through co-investment projects

The core work of Protein Industries Canada in 2022–23 revolved around five main themes:

- Agrifood Leadership;
- Sector Growth;
- Sector Collaboration;
- Sector Competitiveness; and
- Operational Excellence.



Agrifood Leadership

The theme of Agrifood Leadership focuses on creating a strong and united voice that will increase the profile of the agrifood sector in Canada. For Protein Industries Canada, this means establishing our presence as a significant contributor to Canada’s agriculture ecosystem, creating awareness and understanding of how Canada’s plant-based food and ingredient sector can contribute to national priorities and engage thought leaders to increase our own understanding and knowledge of global ecosystems.

Objective

Protein Industries Canada is viewed as a leading organization working to increase the profile of Canada’s plant-based food, feed, ingredients and agrifood sector.

ACTIONS	RESULTS
<p>Increase the profile of the agrifood sector as a leading industry in Canada through collaboration with national agencies.</p>	<ul style="list-style-type: none"> • Worked with national and provincial agencies to position Canada as a preferred partner and supplier of plant-based food and ingredients, including attending international events such as Food Ingredients Europe and Future Food-Tech in partnership with Global Affairs Canada. • Partnered with Invest in Canada to increase awareness of the investment opportunity of the sector with both domestic and US audiences. • Successfully hosted the first-annual Plant Forward in conjunction with Plant-Based Foods of Canada and Pulse Canada with delegates from 11 countries, and multiple bi-lateral and B2B meetings.
<p>Improve the understanding and appreciation of the plant-based sector as a driver of our economy and a solution to climate change by Canadians.</p>	<ul style="list-style-type: none"> • Participated in six national media campaigns targeted at Canadians that utilized both traditional and social media to tell the story of the sustainability benefits of the sector. • Attended COP27, leveraged via social media and articles. • Protein Industries Canada appeared in more than 6,000 media articles in 2022–23, with a potential reach of more than 200 million (size of estimated audience).



ACTIONS	RESULTS
Engage national and international thought leaders to gain additional perspective on the growth of Canada’s agrifood and plant-based foods sector.	<ul style="list-style-type: none"> • Through participation on domestic and international panels, attendance at events and participation on committees, Protein Industries Canada reputation and position as a national leader has been established. • With participation at events hosted by RBC, Farm Credit Canada and the Public Policy Forum, Protein Industries Canada has had the opportunity to engage with thought leaders from coast-to-coast. • Successful visits to the Netherlands and meetings with Upfield, Unilever and other larger multi-nationals provided valuable international insight. • Contribute to the agenda of the bi-lateral meeting between Canada and the Netherlands.

Objective

Prioritize and begin to drive implementation of the recommended actions in *The Road to \$25 Billion*.

ACTIONS	RESULTS
Engage and work across the sector to determine leads for specific actions and outcomes.	<ul style="list-style-type: none"> • Continued work with the Roadmap Advisory Committee to guide priorities and measure progress, including implementing a logic model to identify dependencies and prioritize actions. • Implemented the Regulatory Centre to lead regulatory modernization, collaborate with the sector (including Pulse Canada and Loblaws) and prioritize investments. • Established a partnership with BC Food & Beverage and the Government of British Columbia to better understand current innovation infrastructure capacity and better inform future investments. • Made progress on the implementation of the Access to Capital Strategy—including, hosting two round tables with members of the capital community to better understand barriers to investment and to increase awareness of the sector.
Implement and measure progress for the recommended actions in <i>The Road to \$25 Billion</i> .	<ul style="list-style-type: none"> • Focused work on priority areas of innovation infrastructure, access to capital and sustainability and global brand.



Objective

Thought leaders and decision makers from coast-to-coast-to-coast have an increased understanding of the potential of Canada's plant-based food, feed and ingredient sector.

ACTIONS	RESULTS
Develop and execute an awareness and communications strategy targeted at thought leaders and decision makers.	<ul style="list-style-type: none">• Implemented a multi-prong communications and awareness campaign that included paid and organic social campaigns, targeted one-on-one meetings, paid advertising, direct email and the distribution of a magazine two times a year.• Generated member support via letters to support Protein Industries Canada's submission.• Undertook a paid social media campaign targeted at leaders and decision makers that generated 185,000 impressions and resulted in 1.5 per cent engagement rate.
Increase engagement with federal departments and agencies whose programs and policies affect the agrifood sector (Environment and Climate Change Canada [ECCC], Department of Finance Canada, Health Canada).	<ul style="list-style-type: none">• Undertook extensive engagement with priority departments via letters and one-on-one meetings.• Established relationships with contacts throughout government.• Over the course of the fiscal, meetings were held on a regular basis with: ECCC, PMO, Agriculture and Agri-Food Canada (AAFC), Canadian Trade Commissioner Service (TCS), Innovation, Science and Economic Development Canada (ISED), Finance, National Research Council of Canada (NRC), PrairiesCan and more.



Sector Growth

Sector Growth centres on growing Canada’s plant-based food, feed and ingredients sector to achieve a \$25 billion sector by 2035. Protein Industries Canada works to grow the sector by co-investing into innovative technologies through the Pan-Canadian Artificial Intelligence Strategy and our technology leadership project streams. We further work to align the activities and investments from other federal and provincial organizations to support priorities of *The Road to \$25 Billion* and the scale-up of Canadian companies. Continuing to focus on priorities such as attracting capital to the sector and leveraging IP, will help ensure that Canada as a \$25 billion industry by 2035.

Objective

Increased investment into the plant-based food, feed and ingredient sector.

ACTIONS	RESULTS
<p>Work with ISED to secure funding and deliver the Pan-Canadian Artificial Intelligence Strategy Supercluster Commercialization Stream.</p>	<ul style="list-style-type: none"> • Secured \$30 million in funding from ISED through the Pan-Canadian Artificial Intelligence Strategy. • Officially launched the program and started accepting Expressions of Interest (EOIs) for AI projects in September 2022. • Hired the first AI Program Specialist in Fall of 2022. • Held AI-specific industry engagement events in Calgary and Vancouver. • By March 31, 2023, seven EOIs had been submitted and reviewed with four moving forward to full proposal. • In March 2023, the AI project stream moved to continual intake to support timely project applications and approval.
<p>Work across the governments to align investments into Canada’s agrifood sector.</p>	<ul style="list-style-type: none"> • Inform members about opportunities, such as value-added agriculture tax incentives implemented in both Alberta and Saskatchewan. • The Government of Manitoba continues to advance their Manitoba Protein Advantage Strategy.
<p>Attract private investment—including foreign and capital funds—into Canada’s plant-based sector.</p>	<ul style="list-style-type: none"> • Since 2020, Protein Industries Canada has tracked an additional \$294 million of private investment into the ecosystem, including \$30 million raised this past fiscal.



Objective

Attract and scale domestic and international firms into Canada's plant-based ecosystem.

ACTIONS	RESULTS
Increase the number of firms engaged in Canada's plant-based foods sector and Protein Industries Canada's membership base.	<ul style="list-style-type: none"> As of April 1, 2023, Protein Industries Canada had 219 members and 456 organizations collaborating in projects.
Supporting creation of new firms.	<ul style="list-style-type: none"> The creation of new firms in the food and ingredient sector is not as common as in some other sectors. This is a learning over the past year, and is largely due to the nature of the businesses in these sectors. For the most part these are organizations with significant capital overhead.
Help domestic firms scale-up and grow in Canada.	<ul style="list-style-type: none"> Created and offered in partnership with Ivey Business School at Western University the Accelerate: Leadership Program to support entrepreneurs and SMEs in Canada's plant-based food, feed and ingredients sector. The program ensures Canadian entrepreneurs have the skills and talent development they need to succeed. In 2023–24, two cohorts went through the class with upwards of 20 participants in each cohort.

Objective

Support the commercialization of new plant-based products.

ACTIONS	RESULTS
Ensure timely completion of all technology projects and commercialization of associated products and IP.	<ul style="list-style-type: none"> As 2022–23 marked the last year of Protein Industries Canada's first mandate, priority was given to ensuring projects were completed by March 31, 2023. As of March 31, 2023, 47 of 52 projects were complete, with five being extended into 2023–2024—three of those being technology projects. As of March 31, 2023, there were 303 reported IP assets as a result of Protein Industries Canada co-investments.



ACTIONS	RESULTS
<p>Support the creation of globally relevant brands for high-value ingredients and consumer-packaged goods.</p>	<p>In 2022–23 a number of Protein Industries Canada’s co-invested projects reached commercialization and enter the marketplace as ingredients or as consumer packaged goods:</p> <ul style="list-style-type: none"> <p>Konscious Foods: Line of ready-to-eat plant-based sushi was launched in grocery stores in November 2022 and quickly won a number of awards at plant-based food shows across North America.</p> <p>Wamame Foods: This Wagyu-beef like product, initially announced as Protein Industries Canada’s project in November 2021, has been earning rave reviews across Canada and Asia. Now listed with all major food service companies in North America, as well as Singapore and Japan, you can find this on menus around the world.</p> <p>Big Mountain Foods and Prairie Fava: In April 2022, Protein Industries Canada announced this exciting collaboration between two women-led companies, which led to the creation of Fava-feta and the first soy-free tofu. These award-winning products, which use ingredients from Prairie Fava, are now available across North America.</p> <p>Ingredient: In 2021, Protein Industries Canada announced a new project with Ingredient and Verdient Foods to create a new line of pea-based ingredients. In September of 2022, the results of that project were awarded the Best Plant-Based Sustainability winner of The World Plant-Based Awards at the Plant Based World Expo in New York.</p> <p>Avena Foods: Through multiple Protein Industries Canada projects, Avena Foods has partnered with companies across Canada and around the world to develop new pulse and oat ingredients for use in a wide variety of foods and beverages.</p>



Sector Collaboration

Sector Collaboration seeks to improve partnerships and build relationships among the entire ecosystem to drive growth in the sector.

Objective

Drive alignment of funds and actions, with other funding agencies, industry associations, provincial governments, and NGOs to maximize the flow of investment into Canada’s plant-based food, feed and ingredient sector.

ACTIONS	RESULTS
<p>Continue engagement with national commodity organizations and VPs of Research at Canada’s U15 to ensure understanding and alignment with Protein Industries Canada’s direction.</p>	<ul style="list-style-type: none"> • The engagement of Canadian universities is key for the continued success of Canada’s plant-based ecosystem. In 2022–23, Protein Industries Canada engaged with VPs Research of Universities in dedicated engagement sessions and through events and one-on-one meetings. • There are 33 post-secondary institutions involved in Protein Industries Canada projects with more than \$9 million being invested at universities through projects.
<p>Collaboration with all levels of government to increase investment and collaborate on priorities to secure Canada’s position as a global leader in plant-based ingredients and food.</p>	<ul style="list-style-type: none"> • In 2022–23, Protein Industries Canada continued to engage with all levels of government from across Canada to ensure awareness and support of the plant-based industry. • This included attending the FPT meeting in July 2022, along with one-on-one meetings with the Provincial Ministers of Agriculture of BC, AB, SK and MB. • Additionally meetings with key Federal Ministers and departments were held—including ISED, AAFC, ECCC, TCS and more. • In October 2022, Protein Industries Canada’s CEO, Bill Greuel, testified to the Standing Committee of Agriculture and Agri-Food on the importance of growing a strong value-added sector for Canada to support food security.
<p>Create opportunities for Protein Industries Canada’s members to create new partnerships to support growth and scale-up.</p>	<ul style="list-style-type: none"> • In 2022–23, Protein Industries Canada hosted 23 in-person events, virtual consultations and webinars with more than 1,800 participants. • Events such as Plant Forward and AI-networking events supported the introduction of Protein Industries Canada’s members with new clients, partners and potential funders from Canada and around the world.



Sector Competitiveness

Sector Competitiveness is about building a business environment that supports innovation and the commercialization of new technology, including improving our ability to track and measure our sustainability metrics, attract and train the necessary talent and improve Canada’s international reputation.

Objective

Position Canada’s plant-based food, feed and ingredient sector as a contributor to Canada’s net-zero economy.

ACTIONS	RESULTS
<p>Refine assessment and tracking tools to measure ingredient as well as food and feed product sustainability.</p>	<ul style="list-style-type: none"> The capacity building project, Canada’s National Index on Agri-Food Performance, completed its second phase. For the first time presented a unified, value-chain approach to what ought to be measured on a breadth of sustainability measures for the agrifood sector, including GHG emissions, biodiversity impact, innovation adoption and labour inclusivity. The coalition of partners listed a comprehensive set of proposed 20 indicators, 50 sub-indicators and over 100 metrics.
<p>Communicate GHG/carbon-reduction benefits of plant-based food, increase awareness and understanding of plant-based foods as a solution.</p>	<ul style="list-style-type: none"> Throughout 2022–23 numerous articles and social posts were published by both Protein Industries Canada and our members to bring attention to the environmental benefits of plant-based foods—such as: How a plant-based seafood alternative is helping Canada reduce its carbon footprint and Increased plant-protein processing provides opportunity for net-zero economy. In November 2022, Protein Industries Canada’s CEO, Bill Greuel attended COP27 as part of a Canadian delegation to talk about Canada’s leadership position as a leader in sustainable agriculture and the benefits of plant-based foods as part of the global climate change movement.
<p>Work across Canada’s agrifood sector to create an aligned position on sustainable protein production.</p>	<ul style="list-style-type: none"> Work continues across Canada’s agriculture and food sector to create alignment and a path forward on sustainable protein production, examples include the Manitoba Protein Advantage Strategy and the NRC’s Sustainable Protein Production program.



Objective

Grow the talent pool to support the growth of Canada’s plant-based food, feed and ingredient sector.

ACTIONS	RESULTS
<p>Implement and offer, in collaboration with leading organizations, training and skills programs to attract under-represented groups into the sector.</p>	<ul style="list-style-type: none"> In 2022–23, Protein Industries Canada continued work with organizations like Actua and Agriculture in the Classroom Canada to introduce more than 90,000 youth to careers in agriculture—including more than 11,000 Indigenous youth. In 2022, Palette Skills launched their first program, designing and delivering a re-skilling program for Canada’s agrifood sector to increase employment opportunities among under-represented populations to help solve the labour shortage that the industry faces. The first cohort of the Automation and Digital Agriculture Specialist program had 35 per cent of participants working after the first month. The second cohort achieved a higher employment rate with a more thorough screening process and increased engagement from the sector. In 2022–23, Protein Industries Canada worked with Assiniboine Community College to develop two new diploma programs: Food Science Technology and Chemical Engineering Technology. The new programs are expected to come on stream in 2024.
<p>Engagement of under-represented groups and creation of specific programming to support Indigenous-led businesses.</p>	<ul style="list-style-type: none"> Protein Industries Canada worked with Whitecap Dakota First Nation and SIIT to create a new micro-credential for Indigenous youth in Western Canada to create more opportunities for Indigenous youth in the agrifood sector. The first cohort graduated in early 2023, with 33 per cent of graduates finding work immediately within the sector. The second cohort is currently underway in the Spring of 2023. A project between two Indigenous organizations, Myera Inc. and the Southeast Resource Development Centre (SERDC) will strengthen Canada’s wild rice supply chain to better incorporate it into the overall plant-based food and ingredients sector and bring economic growth to Indigenous communities across the Prairies.



ACTIONS	RESULTS
Support scale-up of SMEs through training and skill development.	<ul style="list-style-type: none"> In 2022–23, Protein Industries Canada continued to work with the Ivey Business School at Western University to offer training in leadership skills and business acumen to members of Canada’s plant-based food, feed and ingredients ecosystem, with the intent of strengthening capacity within the sector. A key component of this program is increasing the business acumen and sophistication of Canadian companies to make them more competitive in accessing private investment. The first cohort launched in March 2022 with 15 attendees. In fiscal 2022–23, another cohort graduated with 23 attendees. Graduates of the program have given it rave reviews and have said it was key to their organization’s progress. A third cohort will be offered in 2023–24.
Support other national organizations to address the chronic labour shortage in food production; advocate behalf on Protein Industries Canada members.	<ul style="list-style-type: none"> Relationships with organizations such as Actua and Palette Skills has drawn attention to the labour and skills shortage of the plant-based sector, but more work needs to be done and more partnerships, such as with the Canadian Agricultural Human Resource Council, are being explored. Protein Industries Canada continues to meet regularly with universities, colleges and other post-secondary institutions to discuss future training needs and to develop programs to support the next generation of workers.

Objective

A membership that has increased awareness of cyber security.

ACTIONS	RESULTS
Increase awareness regarding cyber security within our membership by sharing relevant information.	<ul style="list-style-type: none"> Protein Industries Canada published articles via our newsletters, such as: Protect your research and data from cyber-related threats.
Include cyber security mitigation efforts as an eligible project expense.	<ul style="list-style-type: none"> Cyber security mitigation efforts were allowed as an eligible project expense, however, limited members took advantage of the opportunity. In Fund II, project guidance will be created to allow for cyber security costs to be claimed which should help increase uptake.



Objective

A business environment that supports sustainable innovation and commercialization.

ACTIONS	RESULTS
<p>Continue to drive regulatory modernization for protein labelling, novel food approvals, advanced breeding tools, fortification and labelling requirements for plant-based milks and meats through collaboration with key industry associations and federal government departments (ISED and AAFC).</p>	<ul style="list-style-type: none">• Launched four key studies to investigate effects of regulation and policy on nutritional attributes and consumer choices of plant protein foods.• Participated in research projects that led the development of data sets that address regulatory and policy-related knowledge gaps related to the incorporation of plant protein ingredients into human and animal diets.• Engaged with national and international agencies regarding regulatory modernization and food standardization.• Collaborated with Canada’s plant-protein sector to identify regulatory roadmaps for use of Canadian produced ingredients in new markets and food platforms.• Provided stakeholders on guidance on the interpretation and application of new and existing food regulations and policies.
<p>Create awareness of Canada’s competitiveness in comparison to key jurisdictions.</p>	<ul style="list-style-type: none">• In 2020, Protein Industries Canada engaged Ady Advantage to complete a competitiveness study of Canadian provinces in comparison to the Midwestern US.• In 2022–23, provincial overviews were created to begin the conversation with provincial and municipal governments to further define Canada’s value proposition and begin conversations on how Canada can attract new investments and support the growth of Canadian companies.



Objective

A strong international reputation for Protein Industries Canada and the Canadian plant-based food sector.

ACTIONS	RESULTS
Create and foster relationships with key international markets with the support of ISED, AAFC, GAC, Canada's Regional Development Agencies and provincial trade departments and agencies to position Canada as the supplier of choice for plant-based foods and ingredients.	<ul style="list-style-type: none">Protein Industries Canada is increasingly seen as an active and valuable participant in the global marketplace. Through regular engagement with global thought leaders in markets, such as Singapore, the Netherlands, Japan, the USA, UK and EU, Canada is emerging as the country of choice to do business with. Engagement was supported as needed by in market trade commissioners from GAC and AAFC.
Work with Invest in Canada and other organizations to improve Canada's reputation and brand as a market for foreign direct investment (FDI) for ingredient manufacturing and plant-based foods	<ul style="list-style-type: none">Protein Industries Canada is a member of Invest in Canada's plant-based protein FDI working group. Through this working group, targeted multi-nationals are introduced to the Canadian ecosystem. Protein Industries Canada's technology leadership program has proven to be an effective tool to introduce international companies to Canada and build collaborative relationships.
Define Canada's plant-based food brand including the determination of product attributes valued by end use customers.	<ul style="list-style-type: none">Canada's plant-based food brand is built off of our leadership in sustainable agriculture production and a reliable supply of high-quality, high-protein crops. This combined with a positive values alignment, an innovative and emerging ecosystem and a stable geo-political climate and energy security are all part of Canada's brand to in the global ecosystem.



Operational Excellence

As a member-based organization that administers public funds, we require due diligence, strong financial management and transparency.

Objective

Maximize ISI funding.

ACTION	RESULT
<p>Manage spend on projects—ensuring full spend to maximize co-investment.</p>	<ul style="list-style-type: none"> Protein Industries Canada fully committed our first round of project funding, managing a portfolio of nearly half a billion dollars and fully leveraging the federal government’s investment of \$173 million. Over the past year, Protein Industries Canada worked closely with our project partners to ensure that all projects were completed on time and according to project milestones. If it was expected that a project was not going to reach a milestone, and therefore not use their budget, a process to reallocate the funds to other projects or to re-invest in new projects was undertaken. This allowed to maximize co-investment and make the best possible use of funds to support the growth of the ecosystem.

Organizational Sustainability

Protein Industries Canada is committed to building a diverse and inclusive organization that has industry relevance and the structure to achieve the organization’s and sector’s long-term objectives.

Objective

A diverse, inclusive, engaged and effective workforce.

ACTIONS	RESULTS
<p>Assess whether current Protein Industries Canada policies, practices and procedure are inclusive and sensitive to various cultural, gender and 2SLGBTQI+ differences.</p>	<ul style="list-style-type: none"> Protein Industries Canada strives to be an inclusive and diverse organization that is reflected in our workforce. Protein Industries Canada celebrates Pride Month and the National Day for Truth and Reconciliation and works to increase understanding and acceptance within our organization.
<p>Ensure all staff complete the 4 Seasons of Reconciliation training.</p>	<ul style="list-style-type: none"> Staff were encouraged to complete the training, with most staff completing it. Staff are supported to complete the training and seek out new sources of learnings to increase their knowledge of Indigenous cultures and contribute to reconciliation.



Financial Reporting

2023–2024 Expenditures

EXPENDITURES	O&A	GIC	PCAIS	TOTAL
Technology program		12,007,101	6,993,000	19,000,101
Salaries and benefits	4,320,245			4,320,245
Capacity building program		931,875	466,200	1,398,075
Office & administration	1,309,402			1,309,402
Marketing, materials & events	652,000			652,000
Consulting and professional fees	568,615			568,615
Community program			310,800	310,800
Other	107,269			107,269
TOTAL	6,957,531	12,938,976	7,770,000	27,666,507



2023–2024 Anticipated revenues from other sources

OTHER SOURCES	GIC	PCAIS	OTHER	TOTAL
Industry contribution towards eligible project costs	12,938,976	7,459,200	310,800	20,708,976
Project management fees	960,568	559,440		1,520,008
Membership	154,762			154,762
Interest income	251,538			251,538
Other				-
TOTAL	14,305,844	8,018,640	310,800	22,635,284

2023–2024 Anticipated amount of industry-matching funds to be received in the upcoming fiscal year

INDUSTRY MATCHING FUNDS	GIC	PCAIS	OTHER	TOTAL
Industry contribution towards eligible project costs	12,938,976	7,459,200	310,800	20,708,976
Project management fees	960,568	559,440		1,520,008
Membership	154,762			154,762
Other				-
TOTAL	14,054,306	8,018,640	310,800	22,383,746



2023–2024 Sources of ISED funding

CASH REQUIREMENTS		
Global Innovation Cluster - O&A	3,964,447	
Global Innovation Cluster - Extended projects	3,620,226	
Global Innovation Cluster - Tech	8,386,875	
Global Innovation Cluster - Capacity	931,875	
Global Innovation Cluster - Tech advances	1,800,000	
Total Global Innovation Cluster funding		18,703,423
PCAIS - O&A	725,871	
PCAIS - Tech	6,993,000	
PCAIS - Capacity	466,200	
PCAIS - Community	310,800	
PCAIS - Tech Advances	500,000	
Total PCAIS funding		8,995,871
TOTAL ANNUAL CASH REQUIREMENTS		27,699,295

Protein Industries Canada does not owe any amounts to the crown pursuant to any legislation or agreement.



Intellectual Property Strategy

With the close of Fund I and launch of Fund II, we continue to be aware of the ongoing need for organizations, particularly small/medium-sized enterprises (SMEs), to have access to tools, training and expertise to support their understanding of strategic management of intellectual property (IP). The initiatives below describe actions that Protein Industries Canada continues to undertake to support Canadian organizations in the creation, protection, commercialization, and ultimately, value creation from IP.

IP Rationales

Organizations participating in Protein Industries Canada supported projects are required to develop an IP strategy for their project, referred to as the *IP Rationale*. The rationale process requires that project partners contemplate *Background IP* (including where applicable Fund I IP), *Foreground IP* and commercialization opportunities. The rationale is revisited at Steering Committee meetings and updated as required. Introducing the rationale process to project participants provides them with a basic framework for IP strategy development that can be applied to subsequent internal or collaborative technology development projects.

We want to enable sophistication whether pursuing registered or non-registered IP and encourage:

- Knowledge of a company's competitive landscape
- Use of well-researched trademarks in support of commercial products and services
- Secure and practical protocols for physical and digital knowledge assets

IP Hub

Protein Industries Canada has developed an IP Hub to serve as a marketplace for intellectual property created by Canada's agrifood sector. The IP Hub is accessible to Protein Industries Canada members via an online portal. Conceived as a mechanism by which Protein Industries Canada Members may identify collaboration and licensing opportunities, the IP Hub is also used by academic and research institutes (e.g. NRC) as a platform to build awareness around latent and emerging IP available for license.



Literacy and Training

Stakeholder consultations indicate that Protein Industries Canada members cannot easily access targeted and effective opportunities to better understand how to protect and leverage their IP. Protein Industries Canada will continue to diversify the type of training offered to members to ensure that training addresses specific risks facing organizations active across the value chain, including in plant breeding, digital technology/AI, value-added processing and product formulation. Members have also indicated that they face challenges in selecting service providers when pursuing IP protection. To address this challenge, Protein Industries Canada connects members with prospective service providers.

IP Advisory Committee

Ensuring that the agrifood sector is well informed of IP opportunities and challenges is necessary to effectively translate innovation into economic output. In order to remain responsive to emerging IP trends in each of Protein Industries Canada's four technology pillar areas (Genetics, Crops, Ingredients and Products), and to strengthen IP management as the Cluster matures, Protein Industries Canada has recruited an Intellectual Property Advisory Committee. The IP Advisory Committee may be called on to provide advice to the Protein Industries Canada Senior Leadership Team and Director of Intellectual Property regarding maximizing the benefit of Cluster developed IP for Canadians, supporting member development of IP strategies and new initiatives that will benefit member organizations. Volunteer committee members have experience in Canada's agrifood sector and expertise in Canadian IP law, technology commercialization and growth of Canadian SMEs.



Data and ICT Management

A revised *Data Strategy* is being proposed for 2023–24 driven by growing awareness of data as an asset unto itself. As more companies become holders and processors of data in this sector, the need for structured data governance and accountability has only grown.

Data Management Framework

Protein Industries Canada, in its registries, information systems, records, databases, financials and performance measures, can serve as a model data user. Through protocols established in Fund I, Protein Industries Canada will continue to collect, process, aggregate and manage data with best practice use of confidentiality and consent practices and internal data governance.

Data in Projects

Similar to the IP Rationale, each project currently requires participants to provide a breakdown of *Background Data Sets*, *Foreground Data Sets*, and *Commercialization and Sharing Plans*. In Fund II projects, companies will be encouraged to expand on their internal data governance approach and provide strategies for data security, storage, access, retention, privacy and regulatory compliance.

Access to Training and Tools

Through the AI stream, Protein Industries Canada has developed a data feasibility assessment framework that is being applied in project evaluation. Working with Alberta Machine Intelligence Institute (AMII), Protein Industries Canada is also supporting a *Data Readiness Improvement Program* with training for companies to develop readiness for AI applications by studying and applying practical use cases. Compliance training for Bill C-27 (Digital Charter Implementation Act) is planned, including encouragement of companies to self-evaluate AI risk using the Government of Canada's Algorithmic Impact Assessment Tool.



Agrifood Data Legal Landscape

Protein Industries Canada is continuing to participate in and support data-related projects in collaboration with Enterprise Machine Intelligence & Learning Initiative (EMILI). In order to bring awareness to the complex legal framework in the sector, Protein Industries Canada is contributing to an agrifood data legal landscape report being coordinated by EMILI, touching on ownership, privacy and contracts. The report to be released in 2023 will give practical guidance for data contributors and users, and include detail on evolving legislation, international standards and emerging structures, such as data trusts.

Other Uses of Data

Across the value chain, companies are more aware of sustainability issues and increasingly wish to set sustainability goals. Protein Industries Canada encourages companies to undertake quantitative sustainability analyses of their own processes and products (e.g. life cycle analysis) and is currently gathering related resources.



Performance Monitoring Strategies

<p>National force</p>	<p>Outcome Statement: Protein Industries Canada is cementing Canada’s position as a leader in the innovation, and production of, plant-based ingredients and food. By building on Canada’s natural advantages as a supplier of high-protein, sustainable crops we are creating a new high value sector for Canada, while providing solutions to some of humanities greatest challenges of human and environmental health.</p> <p>Metrics:</p> <ul style="list-style-type: none"> • Cross-cluster collaborations (TBD with other Clusters) • Total sector investment • Percent of projects / technology projects that contribute to greening the economy / environmental impact • Dollar value of follow-on Investment
<p>Driver of growth</p>	<p>Outcome Statement: Protein Industries Canada is creating a \$25 billion industry for Canada, bringing prosperity for Canadians through the creation of new jobs and the scaling of Canadian companies. By creating a competitive environment that positions Canada as the preferred place to invest and source plant-based ingredients from, Protein Industries Canada is contributing to green economic growth for Canada.</p> <p>Metrics:</p> <ul style="list-style-type: none"> • Number of value chain steps participating per project • Percent of technology funding allocated to SMEs • Number of direct jobs supported through Protein Industries Canada investments • Number of regulations that Protein Industries Canada activities have addressed



Creator of networks

Outcome Statement:

Protein Industries Canada is a catalyst for connection and collaboration. With a value chain approach to innovation, Protein Industries Canada is helping form partnerships to accelerate innovation and support the commercialization of new plant-based products and helping Canadian companies find success in Canada and abroad.

Metrics:

- International connections
- Average number of total collaborators (MPA signatories, academic institutions, sub contractors)
- Percentage of members attending at least one Protein Industries Canada sponsored event

Catalyst for skills development

Outcome Statement:

Protein Industries Canada is committed to bringing benefit to Canadians. By creating meaningful partnerships, Protein Industries Canada is helping train the next generation of workers while creating opportunities for Indigenous people, new Canadians, and under-represented groups.

Metrics:

- Per cent of capacity building investments targeting at equity seeking groups
- Per cent of projects that complete economic reconciliation activities within their project
- Per cent of for-profit member companies that participated in or hired graduates from Protein Industries Canada supported programs



Core metrics	Program-wide examples
	<p>Short term: to 2025</p> <ul style="list-style-type: none"> • Average number of partner organizations collaborating to advance projects • Ratio of leveraged funding to total program funding allocated (program project funding : project funding from all other sources) • Percentage of projects with an agreed plan for IP commercialization • Number of IP assets anticipated
	<p>Medium term: 2025–2028</p> <ul style="list-style-type: none"> • Progress towards products, processes or services developed, improved and/or commercialized by participants • Percentage of funded projects that support organizations or enterprises employing equity seeking groups (i.e. Indigenous people, women, visible minorities; persons with disabilities)
	<p>Long term: 2028 and beyond</p> <ul style="list-style-type: none"> • SME project partners’ average revenue growth, in percent • Clusters’ total impact on GDP
Cluster specific	Short term: to 2025
	<ul style="list-style-type: none"> • Industry-matching fund ratio
	<p>Medium term: 2025–2028</p> <ul style="list-style-type: none"> • Investment in ingredient manufacturing capacity (\$CDN) • FDI into domestic/Canadian companies • FDI from MNEs establishing operations in Canada • Domestic investment to scale Canadian manufacturers
	<p>Long term: 2028 and beyond</p> <ul style="list-style-type: none"> • Total ingredient manufacturing capacity (MMT)



Risk Assessments and Mitigation Strategies

Protein Industries Canada's strategic plan is the foundation for its risk management program. Risks are assessed quarterly by management and identified as low (green), moderate (yellow) and high (red). For any risk that falls into the moderate or high category, mitigation strategies are developed and brought forward to the Audit and Finance Committee on behalf of the board.

Protein Industries Canada's organization-wide risks are rated in terms of their likelihood of occurrence and their impact on the organization if they occurred. A lower risk ranking indicates a better score. Mitigation strategies are developed for all moderate to high risk (yellow and red risks).

We classify risks into five categories:

- Operational and Security;
- Compliance;
- Financial;
- Strategic; and
- Political.

Operational and Security Risks are those associated with the day-to-day operations of the organization, as well as risks related to security of sensitive information of Protein Industries Canada and its stakeholders.

Compliance Risks are those associated with operating pursuant to our Contribution Agreement, Articles of Incorporation, Bylaws, the Canada Not for Profit Corporations Act and any other regulatory or legal requirements.

Financial Risks are those associated with the required 25 per cent operational funding derived from industry, securing matching project funds from industry and providing project funds to project partners for eligible expenses.

Strategic Risks are those associated with ensuring our investments are aligned with our strategic plan and supporting the projects and activities with the best chance of driving the industry forward.

Political Risks are those associated with our relationships with all levels of government.



Risk Ranking Framework Definitions

Risk rankings are based on the following definitions:

<p>Score of 20 to 25</p>	<ul style="list-style-type: none"> • Urgent management of this risk is critical to the success of Protein Industries Canada as an organization. • Committee/Board should be engaged to guide Senior Leadership Team. • Significant risk mitigation strategies and improvements are required. • Significant effort and Senior Leadership Team time and possible Board intervention is required to resolve.
<p>Score of 10 to 19</p>	<ul style="list-style-type: none"> • Management of this risk is very important but currently not urgent. It is important to Protein Industries Canada successfully meeting its mandate. • Committee/Board should be informed but does not need to be engaged in the resolution. • Improving risk mitigation strategies is desired. • Requires the time and effort of Senior Leadership Team.
<p>Score of 5 to 9</p>	<ul style="list-style-type: none"> • Management of this risk is important to Protein Industries Canada successfully meeting its mandate. • Periodic reporting to the Committee/Board may be required. • Improving risk mitigation strategies is not needed at this time. • Senior Leadership Team should ensure management controls are in place.
<p>Score of 1 to 4</p>	<ul style="list-style-type: none"> • Management of this risk is not material to Protein Industries Canada successfully meeting its mandate. • Periodic reporting to the Committee/Board should only occur as part of regular reporting (for example: annually). • Improving risk mitigation strategies is not required. • The risk can be managed by routine controls and procedures.



Protein Industries Canada 2023–24 Risk Analysis

Protein Industries Canada Risk Ranking Framework		Likelihood	Impact	Overall Rank
Risk A	Attracting and retaining high quality talent	2	4	8
Risk B	Attracting and retaining high quality Directors and maintaining gender parity	3	4	12
Risk C	Ensuring business information confidentiality	2	5	10
Risk D	Ensuring Protein Industries Canada provides adequate reporting to ISED	1	5	5
Risk E	Obtaining \$180 million in industry matching funds	2	5	10
Risk F	Ensuring that Protein Industries Canada expends the annual ISED allocation of funding and full allocation within the program mandates	3	5	15
Risk G	Protein Industries Canada is able to execute on our Statement of Work and achieve our Five-Year Strategy	3	5	15
Risk H	A significant amount of technology investments do not result in commercially successful products and services	3	4	12
Risk I	Change in federal government	3	4	12
Risk J	Failure to develop a technology portfolio that builds on innovations and IP generated in Fund I	3	5	15
Risk K	Canada's competitiveness continues to lag behind the US slowing sector investment	3	4	12
Risk L	Litigation regarding failed projects or unsuccessful project applications	2	3	6
Risk M	Capacity building investments and activities fail to address and improve systemic barriers to growth	3	4	12
Risk N	Failure to generate additional sources of revenue	3	4	12



Risk Mitigation Strategies for risks identified as moderate to high

	Description	Mitigation Strategies
Risk F	Ensuring that Protein Industries Canada expends the annual ISED allocation of funding and full allocation within the program mandates	<ul style="list-style-type: none"> • Implementing an annual reallocation process based on actual project spend and technical progress • Implemented Change Order process requiring approval for budget or scope reallocations • Implemented annual forecasting requirements for all projects • Program Specialists participate in all Steering Committee meetings • Created Steering Committee Guidebook that includes best practices for project management, change orders and financial reporting • Project spend by category and spend by milestone compared to budget reported at Steering Committee meetings • Actual project spends compared to forecast analysis completed monthly by the CTO and CFO • CEO reviews project spend analysis completed by the CTO and CFO quarterly • Implementing project management and project reporting software
Risk G	Protein Industries Canada is able to execute on our Statement of Work and achieve our Five-Year Strategy	<ul style="list-style-type: none"> • Reorganized the Programs Team to allow for specialization in project development and project management/reporting • Launching a revised program ahead of the actual start of the Contribution Agreement (CA) to ensure a robust project pipeline • Working with prospective clients on the development of project concepts over the course of the last year of Fund I • Rebalanced our investment portfolio in favour of Ingredient and Products to better reflect what is needed to grow the sector • Focusing heavily on communications and marketing efforts early in the launch of Fund II to ensure high demand and a diverse set of projects



	Description	Mitigation Strategies
Risk J	Failure to develop a technology portfolio that builds on innovations and IP generated in Fund I	<ul style="list-style-type: none"> • Began discussions with project proponents in the final year of CA I to build project concepts • Rebalanced our investment portfolio in favour of Ingredient and Products to better reflect what is needed to grow the sector • Rebalanced the portfolio to focus more on later stage innovations that are close to commercially ready • Reviewing our IP portfolio to assess opportunities for collaboration and commercialization • Focusing heavily on communications and marketing efforts early in the launch of Fund II to ensure high demand and a diverse set of projects



Technology Program

Fiscal 2022–23 marked the completion of Protein Industries Canada’s first round of funding. At the end of the fiscal, Protein Industries Canada had invested in 36 projects under its technology program, for a total Protein Industries Canada investment of \$146 million, and an overall co-investment total of \$434 million.

As in previous years, Protein Industries Canada accepted expressions of interest for the technology program on a continual in-take basis. A total of five new projects were approved during the fiscal.

Protein Industries Canada’s second mandate officially began on April 1, 2023. A new round of technology programming was launched in February 2023, with expressions of interest being accepted for projects for the next five years. In the first year of the new mandate, Protein Industries Canada will focus on large-scale technology projects that are further up the Technology Readiness Level (TRL) and need to maximize the time available to complete their innovation.

Projects are expected to move through the proposal stage quickly, with anticipated approval occurring in summer 2023.

Investments under the Fund II technology program will continue to focus on the value chain, with an increased emphasis on ingredient processing and selling at every point in the value chain.

The project intake and selection process remains similar to previous years. Information on the process can be found at <https://www.proteinindustriescanada.ca/technology>.

The Project Selection Committee has been restructured to better reflect Protein Industries Canada’s program priorities. More information about the new Project Selection Committee and its members can be found at <https://www.proteinindustriescanada.ca/technology>.

Technology Program Summary of Project Funding

Protein Industries Canada takes a value chain-based approach to innovation. This means that our investments into technology projects mirrors that of the agrifood value chain—from the lab to the consumer’s fork. Starting in the 2023–24 fiscal, this is represented through four new technology program pillars: *Genetics, Crops, Ingredients and Products*. These pillars will guide all Fund II technology co-investments and will frame co-investment decisions from re-allocated funds moving forward. Examples of potential innovations that complement these pillars are provided below.



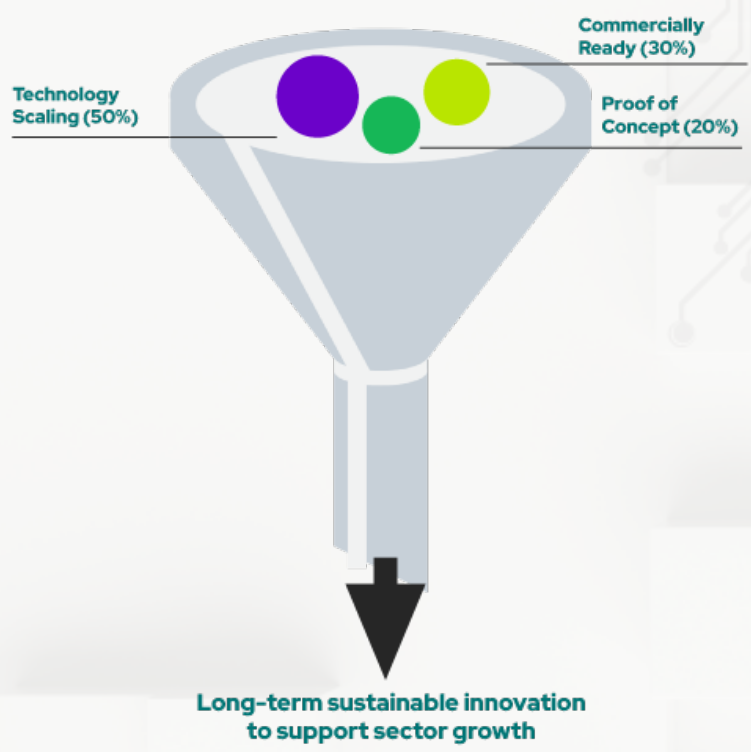
Program Area	Areas of Potential Innovation Focus
<p>Genetics Germplasm development with an aim to improve processing efficiency, quality, sensory qualities and the development of novel ingredients.</p>	<ul style="list-style-type: none"> • Improved co-product quality, functionality and/or nutritional profile; • Reduced anti-nutritional factors; • Improved efficiency of protein extraction and/or crop fractionation; and • Increased availability of supply for emerging field crops.
<p>Crops Technologies to measure and improve on-farm sustainability and information flow along the value chain.</p>	<ul style="list-style-type: none"> • Systems that support the measurement, verification and reporting of traceability / chain of custody, sustainability and food safety of Canadian crops and ingredients.
<p>Ingredients The development, scaling and optimization of plant-based ingredients.</p>	<ul style="list-style-type: none"> • Testing and scaling of new and novel ingredient manufacturing processes; • Improved rates of protein extraction and nutrient density; • Reduced water and energy requirements in ingredient manufacturing processes; • Optimized ingredient manufacturing processes for Canadian crops and Canadian conditions; • The development of new and novel ingredients and co-products from Canadian crops; and • Improved processing efficiency in the manufacturing of plant-based ingredients.
<p>Products The conversion of Canadian-made ingredients and co-products into consumption-ready goods.</p>	<ul style="list-style-type: none"> • The creation and commercialization of consumer-ready food products that align with consumer needs, expectations and trends, including clean-label, sustainable and nutritious products; • The creation and commercialization of value-added animal feed products; and • The creation and commercialization of new industrial bio-products derived from the co-products of protein extraction and ingredient manufacturing.



To ensure a balanced value-chain approach, Protein Industries Canada strives to have investments distributed amongst the pillars via a 15/10/50/25 percentage split.



In addition to the four areas of investment, in Fund II Protein Industries Canada will entertain proposals from across TRL levels to ensure a pipeline of projects to support innovation for the next decade.



- **Proof of Concept (20%)**
Projects that will demonstrate feasibility at pilot scale by generating data to assess technical and economic feasibility. These technologies would be expected to be commercialized within three to five years, and have the potential to transform the sector.
- **Technology Scaling (50%)**
Projects that will enable the first commercial deployment of a technology, enabling companies to establish a feedback loop with prospective customers, and to assess technical, economic and commercial feasibility.
- **Commercially Ready (30%)**
Projects that will enable companies to optimize and deploy commercially viable technology for Canadian crops and conditions.



Anticipated Results of Technology Projects

As of March 31, 2023, all technology projects funded under Protein Industries Canada’s first round of funding have been completed. Projects approved in 2023–24 will fall under Protein Industries Canada’s second round of funding; it is anticipated there will be significant interest in the new funding.

A summary of all projects can be found at <https://www.proteinindustriescanada.ca/projects>.

Pillar projected outcomes

Pillar	Projected Outcomes
Genetics	<ul style="list-style-type: none">• New varieties of protein crops that are better suited to Canadian growing conditions.• Commercialization of new high-protein crop genetics to allow for transition into higher value applications (ex: aquaculture or food)
Crops	<ul style="list-style-type: none">• New measurement, reporting and validation standards for sustainability metrics in Canada.
Ingredients	<ul style="list-style-type: none">• New product concepts that add value to co-products derived from protein extraction processes.• Improved functionality of ingredients through the development of new processing technologies
Products	<ul style="list-style-type: none">• Canadian-made products and Canadian IP will reach new markets, while utilizing plant-protein co-products in innovative ways.



Capacity Building Program

Protein Industries Canada's capacity building program also finished its first round of projects in fiscal 2022–23. At the end of the fiscal, Protein Industries Canada had invested in 19 projects under its capacity building program, for a total Protein Industries Canada investment of \$16.3 million, and an overall co-investment total of \$27.5 million.

Similar to the technology stream, Protein Industries Canada accepted expressions of interest for the capacity building stream on a continual in-take basis. A total of four new projects were approved during the fiscal.

With the launch of Fund II, Protein Industries Canada adjusted its capacity building pillars to focus on five key areas: *Market Knowledge; Innovation Infrastructure; Access to Talent, Labour and Skills; Supportive Regulatory Framework; and An Inclusive Sector that Brings Benefit to Every Canadian*. Protein Industries Canada will re-open to capacity building expressions of interest by fall 2023.

More information about the capacity building stream can be found at <https://www.proteinindustriescanada.ca/capacity-building>.

Under the new fund, Protein Industries Canada moved capacity building project selection away from the previous Project Approval Committee and added capacity building approval into the role of the Project Selection Committee. More information about the new Project Selection Committee and its members can be found at <https://www.proteinindustriescanada.ca/capacity-building>.

Capacity Building Program Summary of Project Funding

With a renewed focus on five specified pillars, Protein Industries Canada will continue its ecosystem-building efforts under the capacity building stream. It is expected expressions of interest will be accepted in mid-2023, helping grow the sector sustainably and with benefit to all Canadians.

Examples of potential work that complements the five focused pillars are provided below.



- **Market Knowledge**
To be commercially relevant, our ecosystem requires deep insight into consumer trends and competitive intelligence about other jurisdictions.
- **Innovation Infrastructure**
Across the sector, there is a need for increased access to research and product-scaling infrastructure.
- **Access to Talent, Labour and Skills**
We estimate the sector needs an additional 17,000 people to achieve the goals set out in The Road to \$25 Billion. This demonstrates both a need and a great opportunity.
- **Supportive Regulatory Framework**
There is an opportunity to modernize Canada’s regulatory system to support continued innovation of plant-based foods, specifically for it to be more responsive and timely and to offer harmonization of regulations with other jurisdictions.
- **An Inclusive Sector that Brings Benefit to Every Canadian**
Protein Industries Canada is committed to inclusion of Indigenous People and new Canadians into the economic opportunity presented by the growth of the plant-based sector.

Anticipated Results of Capacity Building Projects

As of March 31, 2023, all capacity building projects funded under Protein Industries Canada’s first round of funding have been completed. Projects approved in 2023–24 will fall under Protein Industries Canada’s second round of funding.

A summary of all projects can be found at <https://www.proteinindustriescanada.ca/projects>.



Pillar projected outcomes

Pillar	Projected Outcomes
Market Knowledge	<ul style="list-style-type: none"> Dissemination of new market research, including domestic and international trends. Insight for environmental scans.
Innovation Infrastructure	<ul style="list-style-type: none"> Improved understanding of current infrastructure and capacity as well as future needs. Increased number of new operations in Canada. Increased capacity in publicly funded research institutions
Access to Talent, Labour and Skills	<ul style="list-style-type: none"> Increased collaboration with Canada’s Universities, Canada’s Polytechnic Institutions, Indigenous training institutions and a host of talent and skill-focused NGOs. The development of new programs that fill the labour gap and attract highly specialized foreign talent into the sector.
Supportive Regulatory Framework	<ul style="list-style-type: none"> Increased support of regulatory modernization in the areas of protein labelling regulations for protein nutrient content claims, nomenclature and discretionary fortification of simulated plant-based meat and poultry products.
An Inclusive Sector that Brings Benefit to Every Canadian	<ul style="list-style-type: none"> Increased awareness amongst both the agrifood sector and First Nations populations about the opportunities and benefits of collaboration.



Artificial Intelligence Program

In September 2023, Protein Industries Canada launched its artificial intelligence program. Under the new program, Protein Industries Canada organizes the delivery of the Government of Canada's Pan-Canadian Artificial Intelligence Strategy (PCAIS). Protein Industries Canada has committed \$30 million to projects under the artificial intelligence program. It is expected that the first projects will be underway by summer 2023.

Throughout the end of fiscal 2022–23, Protein Industries Canada accepted expressions of interest for the program through timed calls. In January 2023, Protein Industries Canada moved to a continual intake model for artificial intelligence expressions of interest; it is anticipated this model will continue through fiscal 2023–24.

The project intake and selection process is similar to that of the technology program, with the addition of a data-feasibility study to ensure companies are well-prepared to work with and develop artificial intelligence technology. Information on the process can be found at <https://www.proteinindustriescanada.ca/artificial-intelligence>.

Artificial intelligence projects will be assessed for approval by the Project Selection Committee. More information about the new Project Selection Committee and its members can be found at <https://www.proteinindustriescanada.ca/artificial-intelligence>.

Artificial Intelligence Program Summary of Project Funding

Protein Industries Canada will fund projects under the artificial intelligence program according to three streams of funding: *Projects*, *Systems* and *Community*. These streams were developed in consultation with stakeholders, ensuring they meet the business goals of individual companies, address larger opportunities within Canada's plant-based food, feed and ingredient sector, ensure alignment with the recommended actions in *The Road to \$25 Billion*, and ensure that the benefits of AI technologies accrue to all members of society. Examples of potential innovations that complement these pillars are provided below.



Program Area	Areas of Potential Innovation Focus
<p>Projects Help individual companies within the plant-based food, feed and ingredient ecosystem incorporate AI as a core business function.</p>	<ul style="list-style-type: none"> Use AI to improve processing efficiency, reduce labour costs and improve food safety.
<p>Systems Focus on overall sector competitiveness and require multiple partners from the plant-based food, feed and ingredient ecosystem to collaborate on a common goal that benefits the members of the consortia and the entire sector.</p>	<ul style="list-style-type: none"> Working within a data trust and pooling information related to the functionality, nutrition and chemical property of ingredients, the creation of a system whereby companies are creating and testing product formulations in a virtual world. Ingredients being analysed for nutritional composition, allergenicity, taste and texture. Co-innovation of products based on ingredients available from different members of the system.
<p>Community Help ensure that benefits of AI application in the plant-based food space are achieving societal benefits.</p>	<ul style="list-style-type: none"> Design food products that help achieve certain health outcomes or to address health concerns. Develop chain-of-custody systems to help reduce food waste and improve food security.

Anticipated Results of AI Projects

Projects under Protein Industries Canada’s artificial intelligence program are quickly making their way through the application stage. It is anticipated projects will be launched and work underway to implement new technology across the sector by summer 2023. These projects will have significant positive impacts on the sector’s efficiency and sustainability, particularly as new companies realize the full potential of artificial intelligence in their work.

A summary of all projects can be found at <https://www.proteinindustriescanada.ca/projects>.

Pillar projected outcomes

Pillar	Projected Outcomes
Projects	<ul style="list-style-type: none"> Employing AI in the form of imaging technology and process automation to increase automation and consistency of food safety and/or quality assurance
System	<ul style="list-style-type: none"> Utilizing AI to iterate new product formulations faster, in response to consumer preference and improving consumer acceptance.
Community	<ul style="list-style-type: none"> A collaboration between national health advocacy agencies along with a number of plant-based food companies to use AI to design food products that help achieve certain health outcomes or to address health concerns.





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