

# Protein Industries Canada Inc. Corporate Plan 2019/2020

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## Our Vision

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To position Canada as a leading global source of sustainable, high-quality plant protein and plant-based co-products, while substantially contributing to Canada's economic growth and international trade.

## Our Mission

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To inspire innovation and support collaboration to transform Canada's agriculture and food processing sectors.

## Objectives

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Protein Industries Canada will continue to build on its strong governance and organizational foundation for the year ending March 31, 2020. Specific objectives include;

- Investments in Technology Priorities projects and Ecosystem Development activities.
- A fully staffed and highly functioning organization.
- The development of an IP Registry.
- The creation of a searchable member database focused on member capabilities.
- The creation of a Data Management Strategy focused on the use of data as a strategic asset for the agriculture sector.
- The refinement of a robust reporting framework to meet our Government of Canada reporting requirements.

## Outcomes for Fiscal 2020

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### Organizational Structure and Operations

- PIC will add up to 11 new staff positions during fiscal 2020 based on member needs and the proposed organizational chart. PIC expects to fill seven of the positions by June of 2020. Additional staff will be added as required to meet the strategic and operational needs of PIC.
- PIC has secured head office space in Regina, SK. In addition, regional staff, located across the Prairies will ensure a connection to SME's across Alberta, Saskatchewan and Manitoba. This hub and spoke model will increase member engagement and foster collaboration. PIC will redesign its website to further promote the Innovation Supercluster Initiative, including supporting membership sales, facilitating EOI and Project applications, as well as providing benefits to members such as access to pre-competitive research, tools and articles to

support ecosystem development. Work will also begin on a collaboration portal to facilitate project development and management.

- PIC will invest in activities that foster ecosystem development such as a skills and labour strategy, an international engagement plan, IP literacy events, conferences, workshops and member communications.
- PIC has a mandate for the Fiscal 2020 year to engage with industry partners, with a focus on SMEs through attendance at key industry conferences to promote the value of a PIC membership and the Supercluster Strategy.

### Project Selection and Funding

- The project selection process will officially begin in April 2019. The EOI, project proposal templates and the Project Application Companion document will be available online. EOIs and project proposals will be accepted during time-bound calls throughout the year.
- Technology Priority projects, that have at least one SME as part of the consortium, will be aligned with PIC and ISI objectives, and will have a value-chain approach to the create, grow, make and sell categories will be evaluated against the scoring rubric of the Project Selection Guidance Document.
- Ecosystem Development projects will be evaluated for their alignment to the five Innovation Supercluster Initiative strategic pillars as well as their overall contribution to sector competitiveness, SME growth and the ability to connect firms across the ecosystem.
- Projects will be evaluated by the Eligible Project Selection Committee. PIC’s goal is to invest \$ 10,000,000 into projects, worth a total value of \$ 22,282,553 by end of year Fiscal 2020.

### Program Streams & Summary of Project Funding

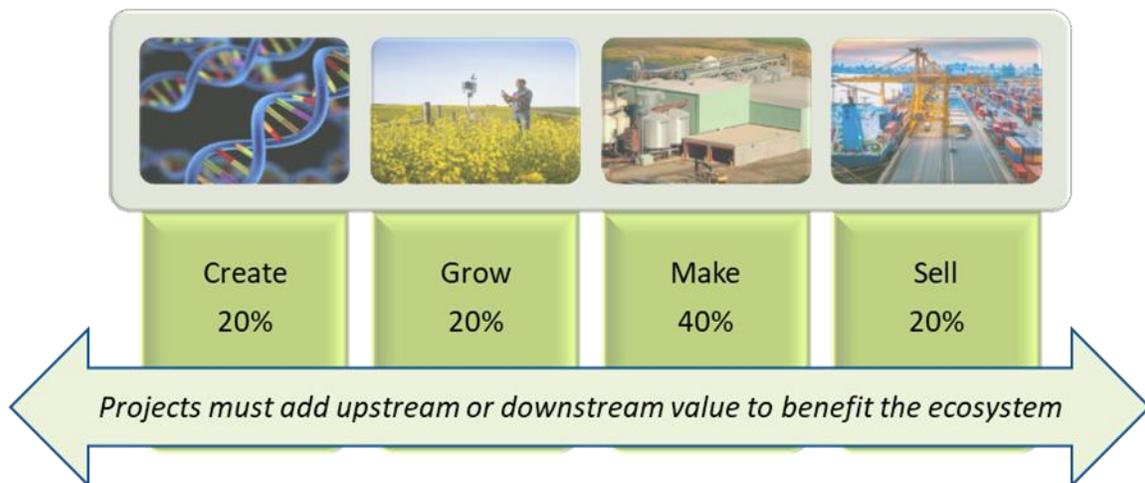
Anticipated Project Funding		2019/2020	2019/2020 %
ISED Contribution		\$ 10,000,000	45%
Industry Contribution		\$ 12,282,553	55%
<b>Total</b>		<b>\$ 22,282,553</b>	
Technology	<i>Create</i>	\$ 4,111,131	18%
	<i>Grow</i>	\$ 2,466,679	11%
	<i>Make</i>	\$ 10,889,484	49%
	<i>Sell</i>	\$ 2,587,004	12%
Ecosystem Development		\$ 2,228,255	10%
<b>Total</b>		<b>\$ 22,282,553</b>	

**Create:** will focus on advanced breeding technologies and germplasm development. Investments will focus on improvements to protein content, quality and functionality with an aim to improve processing efficiency and the development of novel food ingredients.

**Grow:** concentrates efforts on primary production and sustainability objectives using technologies related to data and predictive analytics, artificial intelligence, automation and sensor technology to increase production efficiency, including nutrient and water use, as well as soil carbon sequestration and enhanced photosynthesis. These efforts will reduce cost, improve sustainability and increase understanding of the effects of production practices on protein quality and quantity.

**Make:** is centred on improving processing by enhancing current processes or developing new technologies to increase efficiency, decrease energy consumption or to develop entirely new products from existing commodities. Improvements in this area will allow companies to scale, attract investment into the sector and help meet the need for product consistency in both supply and quality.

**Sell:** Focuses on the development of new markets, in the human, livestock, aquaculture and pet food markets and serving those markets more effectively with improved logistics and traceability. This pillar builds on Canada's brand advantage as a food and ingredient supplier to be better position SMEs to take advantage of the increased demand for plant proteins. This includes pre-competitive research, prototyping and testing, improved trade relationships and trade literacy. Investments will connect small and medium sized enterprises with multinational food and ingredient manufacturers and branded food companies through improved supply chains.



PIC will launch a first call for Expressions of Interest (EOIs) in April of 2019, making \$40 M available across all four strategic pillars. The initial round of applications will close at the end of June and PIC has committed to internal evaluation of EOIs within four weeks of the closing date.

EOIs will be subject to a technical review and evaluated against established criteria in the evaluation rubric. The main evaluation criteria for the EOIs are centred on whether the project addresses a significant gap, challenge or opportunity and the project’s alignment with PIC’s strategic plan. A select number of applications, based on their score and alignment with our approved budget, will be invited for the development of a full application.

The development of the full applications will be driven by the consortia and will be accepted and evaluated on an ongoing basis.

Full applications will be subject to technical review and will be adjudicated and approved by the Eligible Project Selection Committee which is comprised of PIC senior executives and industry experts that span the value chain. The evaluation criteria focus on commercial application, technical merit and contribution to ecosystem development.

PIC will launch a second call for EOIs in September of 2019 allowing for a minimum of two project cycles to be completed within the current fiscal year.

## Anticipated Results of Projects

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Protein Industries Canada has created a robust project evaluation rubric to ensure that projects align with both industry goals related to create, grow, make and sell as well as Innovation Supercluster Initiative priorities.

Program Area	Areas of Potential Innovation Focus
<p><b>Create</b> Creation of high quality protein germplasm from Canadian crops</p>	<ul style="list-style-type: none"> <li>• Improvements in genetics for seed protein and nutrient content, nutritional quality and processing attributes through genomic and proteomic technologies and modern gene editing and plant breeding techniques</li> <li>• Near term improvements in canola and pulse protein quantity and quality.</li> </ul>
<p><b>Grow</b> Smart Production to improve yield, quality, value and integration within the supply chain</p>	<ul style="list-style-type: none"> <li>• Productivity improvements via farm production data collection, analysis, and producer decision making and knowledge management systems, through advancements in the use of production-related information technology for sustainable agriculture practices and land regeneration technologies</li> <li>• Development and application of plant phenotyping and imaging technologies for improved root systems, enhanced photosynthetic efficiency, and greater carbon sequestration</li> <li>• Advanced data networks, artificial intelligence (AI), machine-learning systems, robotics and autonomous farm vehicle technologies for enhanced productivity, sustainability and profitability through improved agronomic practices and AI-enabled decision support tools for growers</li> </ul>

	<ul style="list-style-type: none"> <li>• Impact assessments and mitigation strategies to cope with climate change</li> </ul>
<p><b>Make</b> Novel Process Technology and Product Development for further processing of crops</p>	<ul style="list-style-type: none"> <li>• Process and applications research for enhancing existing methods and platforms and acceleration of new processing technologies for extraction and fractionation of protein and co-products</li> <li>• Protein functionality and bio-activity for the development of novel ingredient and food product formulation strategies</li> <li>• Novel separation technologies such as ionic liquids, sub- and supercritical fluids, Ohmic heating, pulsed electric field and other processes with significant IP opportunities</li> <li>• Processing solutions for pea, lentil and fababean starch-based sustainable and renewable industrial polymers for paper, paperboard, packaging, building and other composite materials</li> </ul>
<p><b>Sell</b> Marketing and Commercialization for branding, sales and export</p>	<ul style="list-style-type: none"> <li>• Company led initiatives and partnerships with government organizations and NGOs for the testing of product prototypes, branding and sale of plant protein and co-products, trade missions, and other sales and marketing activities</li> <li>• Human resource development, enabling technologies related to marketing and commercialization efforts</li> <li>• Support for business to business global supply chain development initiatives, expansion and attraction and fostering of industrial competitiveness</li> <li>• Conference presentations to raise brand awareness of Canadian strengths in plant proteins and related co-products technologies and production</li> <li>• Market research and market intelligence studies</li> </ul>

**Summary of risk assessments and mitigation strategies**

Risks associated with the first full year of Protein Industries Canada operations can be categorized under operational, reputational, financial and strategic.

**Operational Risks** are those associated with the day- to- day operations of the organization and can include an inability to attract the right talent, and not being able to recruit and onboard staff quickly enough to be effective and relevant to our industry members. As a start up, operational risk can also include a lack of clear definitions of roles and responsibilities within the organization and with established economic development and granting agencies, be they governmental or non-governmental.

To mitigate operational risk, PIC is focussed on talent acquisition and we have retained the services of a search firm to secure key senior leadership positions. We have developed comprehensive job descriptions for all positions that we have advertised to date and will continue to so as we staff the organization. Over the course of the year, we will develop a

formal onboarding and training sessions for all new staff. To help ensure operational efficiency, PIC has developed a suite of Corporate Policies including confidentiality, non-disclosure, safe disclosure and social media / communication policies. To mitigate the risk of overlap with existing agencies, PIC has developed a strategic plan that will ensure management stays focussed on key activities and has formalized ongoing discussions and the working relationship with several key governmental and non-governmental agencies.

**Reputational Risks** are those which influence how we are perceived by our stakeholder members and are related to the speed at which we make decisions, the quality of those decisions and the value we provide to membership.

To mitigate these risks, PIC is redesigning its website to provide a member only portal with increased security and content for members. We have developed a transparent, robust and responsive project selection framework and will be communicating our process to all potential members. We will further develop and refine our Ecosystem Development Plan which is member focussed and responsive to industry needs including IP literacy and skills development. In addition to this, PIC is planning an extensive organization and programming launch throughout western Canada with events in Lethbridge, Calgary, Edmonton, Saskatoon, Regina and Winnipeg to help our membership gain a better understanding of the value of Protein Industries Canada.

**Financial Risks** are those associated with both the required 25 per cent operational funding derived from industry as well as securing matching project funds from industry. Specific risks include not securing enough membership or project management fees to cover operations and not securing enough project funding to meet the ISI matching requirements.

PIC will implement a project management fee of four per cent of the total project value to help fund operations. From a project matching perspective, we will work with members to build strong proposals with consortia of funders that are willing to co-invest with PIC. In addition, we have a strong plan to promote the co-investment model for PIC and to cast a wide net across our membership and to work with members that are willing to work with PIC to fund projects. PIC has also developed a robust Financial Management Framework Document, created corporate policy related to signing authority and is in the process of developing an extensive finance and accounting manual.

**Strategic Risks** are those associated with investing in areas that offer a low rate of return, have too high of a risk profile or do not contribute to the goals and objectives of PIC.

The primary means of mitigating this risk is based on a strong five year Supercluster strategy that focusses not only on our four strategic pillars of create, grow, make and sell, but also on the biggest opportunities for growth in the sector. These include technology, global branding and recognition, infrastructure, access to labour, skills and talent, regulation, intellectual property management and access to capital. Our Strategic Plan has been highly tested and our

EOI, Full Application templates and evaluation rubrics have been aligned to ensure that our decisions support this plan.

## **Summary of ongoing performance monitoring strategies**

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PIC has developed a series of short term and ongoing operational metrics including;

- Number of projects funded (quarterly KPI);
- Value of PIC investments in technology priority projects (quarterly KPI);
- Value of industry contributions in technology priority projects (quarterly KPI);
- Value of PIC investments in ecosystem development projects (quarterly KPI);
- Value of industry contributions in ecosystem development projects (quarterly KPI);
- Project milestone tracking against statement of work / project plan (quarterly KPI);
- Budget to actual expenditures (quarterly KPI); and
- Cash flow projections (monthly KPI).

In addition to the operational metrics, PIC has developed an extensive set of outcomes to be tracked. Much of the work this year will be focus on establishing benchmarks and appropriate measures;

- The development of new plant-based food ingredient, feed, pet food, aquaculture and industrial products;
- The creation of 4,500 jobs over the next 10 years as a result of PIC investments and the development of new technologies;
- Increase the amount of private sector funding invested into agriculture and food processing research and innovation;
- Benchmark and then work to increase the project collaboration index (total number of ecosystem members participating per PIC project);
- Ensure a highly-qualified labour pool is available and that students are being trained to meet the current and future needs of the industry;
- The number of PIC member firms who have an IP strategy;
- Increase the total percentage of venture capital funds invested in agriculture in Western Canada;
- Develop a data strategy that reflects the needs of member firms and positions the agriculture and value-added processing sectors to better use data to inform decisions and increase the sustainability of the sector; and
- Total number of Supercluster members.

In the first year of operations, PIC will dedicate resources to developing a baseline measure for the organization's outcomes. As a first step, PIC will work with existing agencies that may have some of these measures including Western Economic Diversification, provincial government departments and industry associations including producer commodity groups and food processing associations. This collaborative approach will help identify gaps in our KPIs and

measurements. Once these gaps have been identified, PIC will work with the ecosystem to determine the best means to obtain baseline information. Approaches could include further collaboration with government agencies, universities and consultants and could also include annual member surveys.

The goal by the end of the first full year of operations is a baseline measure for each of the KPIs mentioned above along with a plan and schedule as to how to measure the KPIs going forward.

## **Anticipated amount of industry matching funds**

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PIC will secure Eligible Industry Matching Funds of \$12,282,553 in Fiscal 2020. Ineligible industry matching funds of \$1,000,000 will be secured in Fiscal 2020.

## **Ecosystem development**

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Ecosystem Development will focus its investment in priority areas as identified by industry. These areas represent significant opportunities for lasting growth and will impact the long-term success of the ecosystem. PIC will undertake activities in the following areas, focusing on engaging SMEs to ensure that the offerings meet their needs and are contributing to the larger goals of PIC and the ISI.

**Intellectual Property Literacy** activities will aim to improve members knowledge on valuation, protection and commercialization of IP. PIC will work with legal resources and industry experts to develop industry best practices and host workshops and training sessions.

**Information Technology and Data Utilization** projects will assist companies in better utilizing data as a strategic asset to drive better business decisions, improve efficiency and better meet end use customer demands. This could include evaluating approaches to enhanced data collection and analysis as well as improved data interoperability.

**Indigenous Engagement** activities will focus on Indigenous economic development and employment creation across the value chain from ingredient production to food and feed processing.

**International Engagement** activities will focus on improving access to foreign direct investment, technology collaborations and how we engage non-Canadian companies in the development and execution of technology priority projects.

**Market Knowledge** projects will help to increase the sectors understanding of key domestic and international markets by assessing market potential, market size and brand attributes.

**Skills and Talent Development** will create and foster key collaborations with post-secondary institutions including universities, colleges and polytechnic institutions to

ensure that we are training enough people with the right skills to meet future employment demands. In addition, work in this area will develop a strategy to attract international talent into the ecosystem.

**Regulatory Reform** projects will research and identify the largest regulatory constraints to industry growth and innovation and serve to make recommendations to regulators on areas for improvement.

**Infrastructure Enhancement** projects will address common needs for research and development infrastructure in the agriculture, food and feed ingredient processing sectors. Priorities will be identified through project evaluations and discussions with members. Gaps will be addressed through collaborations with other funding agencies and the private sector.

## Intellectual Property Strategy

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In the first year of implementation for the IP Strategy, PIC will focus on building the supports and tools SMEs need to improve their IP literacy with a focus on awareness, education and advice. The goal in the first year is to create better knowledge and understanding of how IP can help companies compete in a global marketplace. This will be accomplished by:

- Making available appropriate resources to SMEs, such as the IP Manager;
- Hosting learning sessions on IP;
- Assisting project consortia in the development of their IP rationales;
- The creation of an IP toolkit;
- Creating a dispute resolution process; and
- The creation of an IP Registry.

## Data Strategy

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PIC will take 2019/20 to fully develop a robust data strategy focused on three main outcomes;

- Implementing policies and procedures to ensure that member data related to project applications and project reviews is protected;
- Constructing a robust member database that will allow for member matching services and virtual collaboration; and
- An extensive member needs assessment aimed at increasing knowledge related to;
  - The business problems that our members across the value chain face where enhanced data management (collection, collation and analysis) could help;
  - The issues and challenges that our members across the value chain face with respect to data collection, management and analysis; and
  - The major concerns that our members across the value chain have with respect to data management

## Statement of Revenues & Expenditures

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Sources of Revenue	FY 2019/2020
ISED Contributions	\$2,282,553
Memberships & Program Management Fees	\$1,041,302
<b>Total</b>	<b>\$3,323,856</b>

<b>FY 2019/2020 Planned Expenditures</b>	<b>Salary &amp; Benefits</b>	<b>Operating &amp; Administration</b>	<b>Marketing &amp; Materials</b>	<b>Conferences &amp; Travel</b>
2019/2020	\$ 1,880,945	\$ 292,460	\$ 475,000	\$ 435,000
% of Overall Expenditures	61.00%	9.48%	15.41%	14.11%