



# Food Hub Network Industry Survey

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Prepared for the BC Ministry of Agriculture

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# 1. EXECUTIVE SUMMARY

## Background and Scope

The BC Ministry of Agriculture (“The Ministry”), in collaboration with industry and post-secondary institutions, is in the process of developing a BC Food Hub Network (“The Food Hub Network”). The creation of the Food Hub Network is part of the Ministry’s Feed BC mandate pillar.

To guide the development of the Food Hub Network, the Ministry commissioned MNP LLP (“MNP”) to conduct a province-wide survey to identify the current needs, challenges and opportunities of BC food and beverage processors and those interested in entering the industry.

## Profile of Survey Respondents

A total of 205 survey respondents involved in the BC food and beverage processing and/or agriculture and seafood production industries participated in the survey. Responses were received from all regions in the province, with the geographic distribution of responses being roughly similar to the overall distribution of the industry in BC. The distribution of respondents by size of organization was also roughly similar to the distribution of the industry in BC, and responses were received from organizations engaged in a wide-range of sub-sectors within the food and beverage processing industry, which reflected the diverse nature of the food and beverage processing industry in BC.

## Key Needs of the Food and Beverage Processing Industry

There was overwhelming interest among respondents in the Food Hub Network regarding the potential resources and services available at the Food Hub Network. The majority of survey respondents expressed interest in all potential resources and services, and three-quarters of respondents indicated they would be willing to pay for resources and services available through the Food Hub Network.

Table A displays the percentage of survey respondents with a moderate to high interest level in the given resources or services by region.

**Table A: Level of Interest in Resources and Services by Region**

Resources and/or Services	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Training and education related to processing, technology or food/health and safety	88%	73%	69%	83%	82%
Business development services	84%	73%	90%	70%	80%
Product or production consultation services	81%	73%	72%	77%	78%
R&D services or facilities	77%	70%	72%	73%	75%
Food handling and/or storage services	70%	58%	66%	80%	70%
Leased, rented or shared equipment and/or technology	62%	64%	59%	80%	64%
Shared retail/market space for multiple business to sell directly to consumers	62%	64%	62%	77%	64%
Leased, rented or shared processing facilities	57%	61%	59%	70%	59%
Other	7%	6%	0%	7%	6%

*Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.*

Table B displays the percentage of survey respondents with a moderate to high interest level in the given resources or services by organization size.

**Table B: Level of Interest in Resources and Services by Organization Size**

Resources and/or Services	Small	Medium	Large	All respondents
Training and education related to processing, technology or food/health and safety	81%	78%	87%	82%
Business development services	85%	81%	57%	80%
Product or production consultation services	76%	81%	80%	78%
R&D services or facilities	75%	81%	63%	75%
Food handling and/or storage services	73%	63%	57%	70%
Leased, rented or shared equipment and/or technology	74%	47%	43%	64%
Shared retail/market space for multiple business to sell directly to consumers	72%	69%	27%	64%
Leased, rented or shared processing facilities	70%	50%	27%	59%
Other	7%	3%	3%	6%

Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.

## Key Constraints of the Food and Beverage Processing Industry

Survey respondents indicated that the most significant limitations to their growth and ability to compete were processing equipment or facility/infrastructure limitations and capital or financing limitations.

Table C displays the percentage of survey respondents from each region that rated each factor as “moderate” or “high” in severity.

**Table C: Factors Constraining Organizations’ Ability to Grow and Compete by Region**

Constraints	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Processing equipment or facility/ infrastructure limitations	74%	77%	88%	76%	77%
Capital or financing limitations	71%	77%	80%	71%	74%
Regulatory requirement limitations	68%	65%	56%	62%	65%
Skilled and/or unskilled labour limitations	69%	54%	52%	52%	62%
Technical expertise limitations	64%	58%	52%	67%	62%
Distribution channel limitations or inaccessibility to markets	61%	54%	52%	62%	59%
Advanced technology inaccessibility	49%	42%	44%	43%	46%
Other	6%	0%	4%	0%	3%

Note: Degree of constraint was measured on a 3-point scale ranging from “Low” (1), to “Moderate” (2) to “High” (3). Percentage refers to survey respondents that rated 2 to 3.

Table D displays the percentage of survey respondents from each region that rated each factor as “moderate” or “high” in severity.

**Table D: Factors Constraining Organizations’ Ability to Grow and Compete by Organization Size**

Constraints	Small	Medium	Large	All Respondents
Processing equipment or facility/ infrastructure limitations	73%	74%	93%	77%
Capital or financing limitations	81%	81%	40%	74%
Regulatory requirement limitations	66%	67%	57%	65%
Skilled and/or unskilled labour limitations	50%	70%	100%	62%
Technical expertise limitations	58%	78%	60%	62%
Distribution channel limitations or inaccessibility to markets	61%	70%	43%	59%
Advanced technology inaccessibility	43%	52%	50%	46%
Other	4%	7%	0%	3%

*Note: Degree of constraint was measured on a 3-point scale ranging from “Low” (1), to “Moderate” (2) to “High” (3). Percentage refers to survey respondents that rated 2 to 3.*

## Additional Considerations of the Food and Beverage Processing Industry

Many survey respondents indicated that the proximity of the Food Hub Nodes to their organization and the cost of access will be crucial factors in their organization’s ability and interest in using the Food Hub Network’s resources and services. As the majority of food and beverage processing organizations in BC are small organizations, spending considerable time and money to access the resources and services was cited as the major potential barriers by survey respondents.

Many survey respondents indicated that access to financing programs and assistance with funding applications are resources/services they would be interested in accessing through the Food Hub Network. Specifically, the time-consuming nature of funding applications and lack of simple financing opportunities were cited as current issues survey respondents would like to see addressed by the Food Hub Network.

Additionally, survey respondents indicated they would like networking opportunities and collaboration with other organizations as part of the resources and services offered by the Food Hub Network. Many respondents were interested in networking events where food and beverage processors have the opportunity to establish relationships with food distributors, food brokers and food scientists. Survey respondents also indicated that they would like to see the involvement of other government programs, industry associations and farmers markets within the Food Hub Network’s resources and services.

## Summary

As aforementioned, the survey respondents expressed overwhelming interest in the Food Hub Network. Respondents identified training and education, business development services, and product and production consultation services as being major needs for the BC food and beverage processing industry and were eager to obtain assistance with addressing these needs through the resources and services of the Food Hub Network.

## 2. INTRODUCTION

### 2.1. Background and Scope

The BC Ministry of Agriculture (“The Ministry”), in collaboration with industry and post-secondary institutions, is in the process of developing a BC Food Hub Network (“The Food Hub Network”). The creation of the Food Hub Network is part of the Ministry of Agriculture’s Feed BC mandate pillar. Feed BC is a key priority for the Ministry, committed to encouraging more food and beverage processing in BC, which supports local economies, job creation and local agriculture. The province’s food and beverage processors produce approximately \$9 billion worth of value-added products a year, representing 70% of total agri-food revenues.<sup>1</sup>

The Food Hub Network is envisioned to consist of a Core Food Innovation Centre at UBC (“Core Innovation Centre”), as well as multiple regional centres (“Food Hub Nodes”) across BC. The goal for the Food Hub Network is to facilitate access to processing facilities, equipment, technology, research and development, knowledge-sharing and innovation-related services for those involved or wanting to be involved in food and beverage processing or value-added activities across the province.

To guide the development of the Food Hub Network, the Ministry commissioned MNP LLP (“MNP”) to conduct a province-wide survey to identify the current needs, challenges and opportunities of BC food and beverage processors and those interested in entering the industry.

### 2.2. Purpose of the Survey

The purpose of the survey was to gather information from BC food and beverage processors regarding their usage and/or needs of processing facilities and equipment, research and development services, product commercialization services and government support/programs. The survey also aimed to gather information on processors’ innovation related activities, goals, and obstacles.

Participants in the survey were asked to provide:

- **Overview of their organization.** The survey asked background questions including organization type, size and location.
- **Innovation and processing-related resources and services needs.** The survey included questions about the interest and/or need in specific innovation or processing-related resources and services that survey respondents would like to access through the Food Hub Network.
- **Current use of innovation or processing-related resources and services.** The survey included questions about the past and current use of innovation or processing-related resources and the importance of these to organization growth.
- **Factors and strategies impacting organizational growth.** The survey included questions about factors that constrain their ability to grow and/or compete along with the importance of various business/operational strategies to organizational growth.
- **Activities and obstacles related to innovation.** The survey included questions about past innovation-related activities, objectives driving innovations, as well as factors constraining innovation.
- **Final comments and questions.** The survey included open-ended questions where survey respondents had the opportunity to provide input on factors that should be considered in the

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<sup>1</sup> Estimate provided by the BC Ministry of Agriculture.



development and implementation of Food Hub Network and ways on how the Ministry and industry associations can better support their organizations.

**Appendix A** includes the online survey tool used for this study.

## 2.3. Report Limitations

This report is provided for information purposes and is intended for general guidance only. It should not be regarded as comprehensive or a substitute for personalized, professional advice.

We have relied upon the completeness, accuracy, and fair presentation of all information and data obtained from survey respondents. The accuracy and reliability of the findings and opinions expressed in this report are conditional upon the completeness, accuracy, and fair presentation of the information underlying them. As a result, we caution readers not to rely upon any findings or opinions for business or investment purposes and disclaim any liability to any party who relies upon them as such.

Additionally, the findings and opinions expressed in the presentation constitute judgments as of the date of the presentation, and are subject to change without notice. MNP is under no obligation to advise of any change brought to its attention which would alter those findings or opinions.

## 2.4. Acknowledgments

The survey was carried out with the counsel of a Survey Working Group comprised of the following members:

- James Donaldson, BC Food Processors Association
- Tanya Tait, BC Food Processors Association
- Candice Appleby, Small Scale Food Processors Association
- Dr. Anubhav Singh, University of British Columbia
- Amanda Reaume, University of British Columbia
- David Connell, University of Northern British Columbia
- James Street, BC Ministry of Agriculture
- Dennis Jess, BC Ministry of Agriculture
- Chelsea Sutherland, BC Ministry of Agriculture

MNP would like to acknowledge the contributions of the members of the Survey Working Group for their cooperation in sharing existing industry surveys and relevant documentation, developing the survey questionnaire, and providing direction and guidance on the survey.



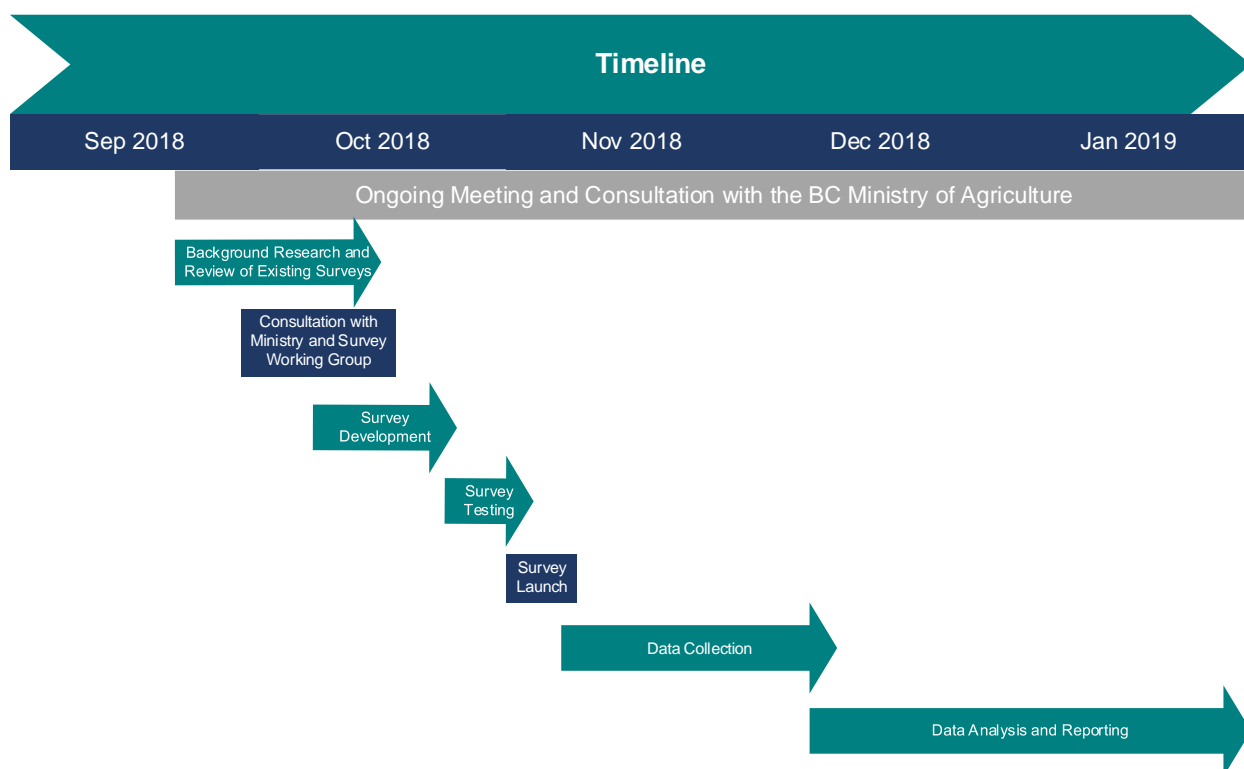
## 3. SURVEY METHODOLOGY

### 3.1. Timeline

The study was conducted between mid September 2018 and January 2019, with survey data collection occurring between November 13, 2018 and December 19, 2018.

Figure 1 illustrates the timeline of the survey.

**Figure 1: Timeline**



### 3.2. Activities

The following main activities were carried out as part of the survey:

- **Background research and review of existing surveys.** Beginning in mid-September 2018, MNP collected relevant, publicly available information on the BC food and beverage processing industry's needs, challenges and opportunities to guide the survey development. As part of this step, MNP also examined existing industry surveys related to innovation to gain an understanding of the types of resources and services used by BC food and beverage processors.
- **Consultation with the Ministry and Survey Working Group.** MNP consulted with the Ministry and the Survey Working Group to confirm the key objectives of the survey and determine potential research questions.
- **Survey development.** MNP developed the survey questionnaire used gather information to guide the development of the Food Hub Network. The questionnaire was reviewed and refined based on feedback received from the Ministry and the Survey Working Group. Once approved, the questionnaire was loaded into SimpleSurvey, a secure online data collection tool.

- **Survey testing.** Question wording, survey flow and timing were tested internally by MNP as well as by the Ministry. Once internal testing was complete, MNP tested the online survey with a total of eight food and beverage processors. Testing participants were selected by the British Columbia Food Processors Association (“BCFPA”) and the Small Scale Food Processors Association (“SSFPA”). The testing involved requesting participants to provide feedback such as:
  - The length of time it took to complete the survey.
  - The clarity of the survey directions and questions.
  - The flow and logic of the survey questions.
  - Potential changes to the survey questions.
- **Survey launch.** Once the feedback from the testing participants was incorporated and the survey was finalized, MNP provided the Ministry with a web link to the online survey instrument along with a survey invitation for distribution. The Ministry collaborated with BC agri-food industry associations to disseminate the survey. The survey was officially launched on November 13, 2018.
- **Data collection.** Data collection was conducted between November 13, 2018 and December 19, 2018. To encourage participation in the survey, MNP provided the Ministry with survey reminders that could be sent to industry associations for distribution throughout the data collection process. Throughout the data collection process, MNP monitored and provided weekly updates on response rates to the Ministry.
- **Data analysis and reporting.** Once the survey closed, MNP began the analysis and reporting on survey findings.

### 3.3. Analysis

MNP analyzed survey results to provide an overview of survey respondents’ needs and/or interest in accessing specific resources and services available through the Food Hub Network, as well as survey respondent’s current use of resources and services, business challenges and strategies, and innovation-related activities and obstacles.

For all survey questions, we have included an analysis of the responses of all survey respondents. In some cases, a summary of key differences in responses by the operational characteristics of survey respondents is provided. These characteristics include organization type, region and size. Survey respondents’ total annual sales, number of employees and years in operation were highly correlated and, as a result, most findings for one were also found for the others. Upon discussions with the Ministry, it was decided that total annual sales would be used as the measure for organization size. Categories by organization type, region and size used throughout this report are outlined below.

#### Organization type:

- Primary or secondary processor (e.g., food or beverage processing, natural health product processing).
- Agriculture/seafood producer that is not currently involved in processing/value-added activities but would be interested in exploring these activities in the future.
- Both an agriculture/seafood producer and primary or secondary processor (including agriculture/seafood producers that are currently involved in processing).

**Geographic region:**

- South Coast<sup>2</sup>
- Vancouver Island/Coast<sup>3</sup>
- Okanagan<sup>4</sup>
- Other<sup>5</sup>

**Organization size (measured in total annual sales in 2017):**

- Small: \$0-\$499,999
- Medium: \$500,000-\$4,999,999
- Large: \$5,000,000 or more

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<sup>2</sup> South Coast includes Metro Vancouver, the Fraser Valley, the southern portion of the Sunshine Coast, and the southwestern portion of the Squamish-Lillooet Regional Districts.

<sup>3</sup> Vancouver Island/Coast includes Vancouver Island, Gulf Islands, and Powell River Regional District.

<sup>4</sup> Okanagan includes the western arm of Columbia-Shuswap, the Similkameen Valley, the Kettle River Valley, the North Okanagan, the South Okanagan and Central Okanagan Regional Districts.

<sup>5</sup> Includes all other regions (i.e., Cariboo Chilcotin Coast, Thompson Nicola, Kootenay, Omineca Skeena, Peace, and Other)

## 4. SURVEY FINDINGS

The findings in this section summarize the survey respondents' interest in accessing specific resources and services available through the Food Hub Network, as well as survey respondents' current use of resources and services, business challenges and strategies, and innovation-related activities and obstacles. This section is divided into the following sub-sections:

- Profile of survey respondents including their organization types, size, location and sub-sector.
- Innovation and processing-related resources and services needs.
- Factors and strategies impacting organizational growth.
- Use and importance of innovation and processing-related resources and services.
- Activities and obstacles related to innovations.



## 4.1. Profile of Survey Respondents

This section of the report provides a summary of survey respondents including their organization types, size, location and sub-sector.

### Summary of Profile of Survey Respondents

#### Total number of survey respondents

- In total, 205 survey respondents involved in the BC food and beverage processing and/or agriculture and seafood production industries participated in the survey.

#### Type of organization

- **Most survey respondents were food processors.**
  - Approximately 62% of survey respondents were primary or secondary food processors.
  - Approximately 23% of survey respondents were agriculture/seafood producers
  - Approximately 15% were both a primary or secondary processor and an agriculture/seafood producer.

#### Size of organizations

- **Most survey respondents were from small organizations.**
  - Approximately 59% of survey respondents were from organizations with 5 or fewer employees.
  - Approximately 68% of survey respondents were from organizations that had less than \$500,000 in sales in 2017.
- **A small group of survey respondents were from large organizations.**
  - Approximately 9% of survey respondents were from organizations with over 100 employees.
  - Approximately 16% of survey respondents were from organizations that had over \$5,000,000 in sales in 2017.

#### Location of organizations' headquarters

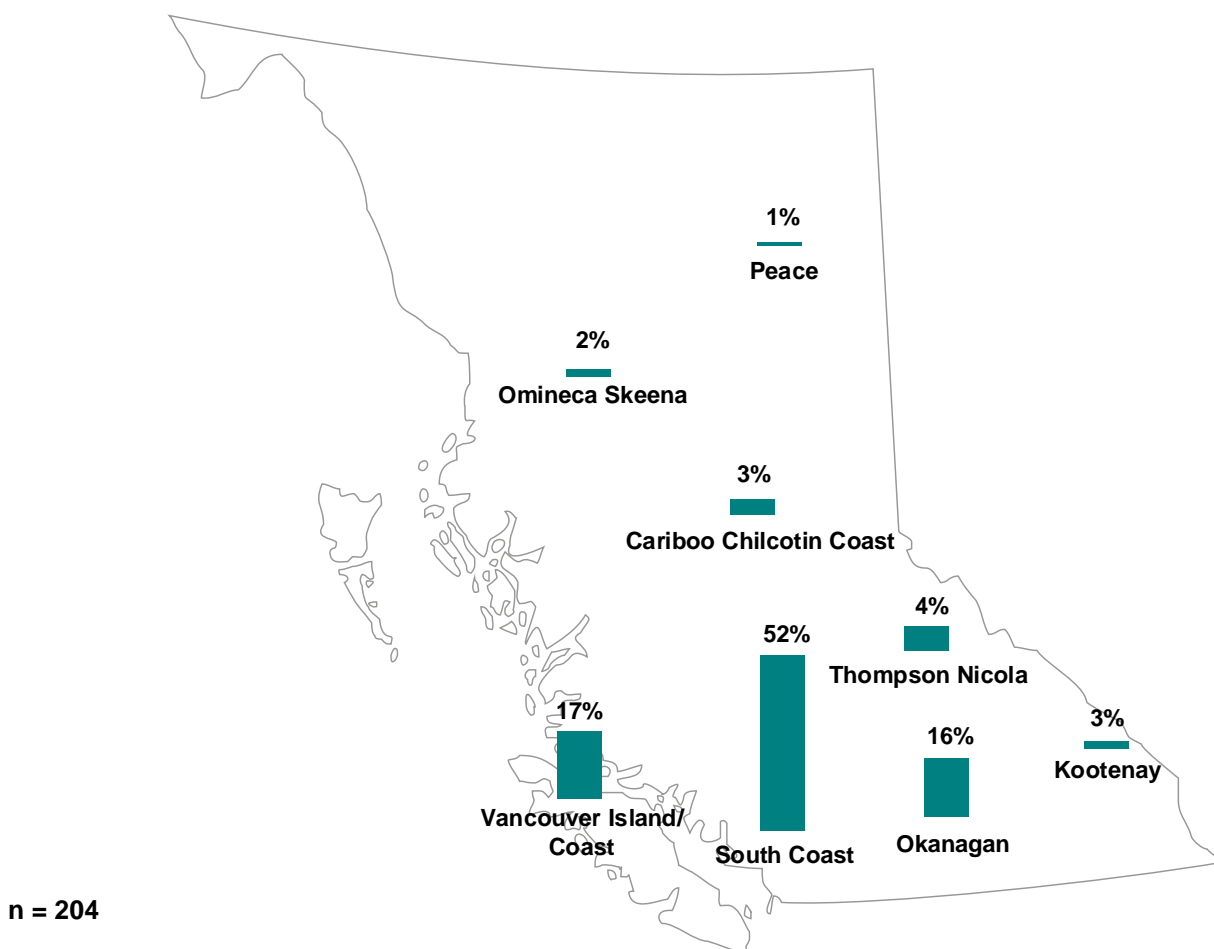
- **Survey respondents were headquartered in regions throughout the province. The largest number of respondents were based in the South Coast region.**
  - Approximately 52% of survey respondents were from the South Coast region.
  - Approximately 17% of survey respondents were from the Vancouver Island/Coast region.
  - Approximately 16% of survey respondents were from the Okanagan region.
  - Approximately 15% of survey respondents were from the other regions, including Kootenay, Thompson Nicola, Cariboo Chilcotin Coast, Omineca Skeena, Peace, and other regions.

## Location

The largest number of survey respondents were from the South Coast (52%), Vancouver Island/Coast (17%) and Okanagan (16%) regions.<sup>6,7,8</sup> The remaining survey respondents (15%) were from other regions.<sup>9</sup>

Figure 2 displays the percentage of survey respondents with headquarters in the given regions.

**Figure 2: Location**



Please note that 2% of survey respondents classified its headquarters location in "Other" and are not included in the figure above.

<sup>6</sup> South Coast includes Metro Vancouver, the Fraser Valley, the southern portion of the Sunshine Coast, and the southwestern portion of the Squamish-Lillooet Regional Districts.

<sup>7</sup> Vancouver Island/Coast includes Vancouver Island, Gulf Islands, and Powell River Regional District.

<sup>8</sup> Okanagan includes the western arm of Columbia-Shuswap, the Similkameen Valley, the Kettle River Valley, the North Okanagan, the South Okanagan and Central Okanagan Regional Districts.

<sup>9</sup> These regions include: Kootenay (including East and Central Kootenay, the southeast areas of Kootenay Boundary, and the southeast areas of Columbia-Shuswap), Thompson Nicola (including Thompson-Nicola Regional District and the northeast section of the Squamish-Lillooet Regional District), Cariboo Chilcotin Coast (including Cariboo Regional District as well as west to the Central Coast), Omineca Skeena (including Fraser-Fort George, Bulkley-Nechako, Kitimat-Stikine and Skeena-Queen Charlotte), Peace (including Peace River Regional District and the Northern Rockies Regional Municipality), and Other.

## Organization Type

The majority of survey respondents classified their organization as a primary or secondary processor. The remaining survey respondents classified their organization as an agriculture/seafood producer, or both a primary or secondary processor and an agriculture/seafood producer.

Figure 3 displays the percentage of survey respondents belonging to organizations of the given types.

**Figure 3: Organization Type**



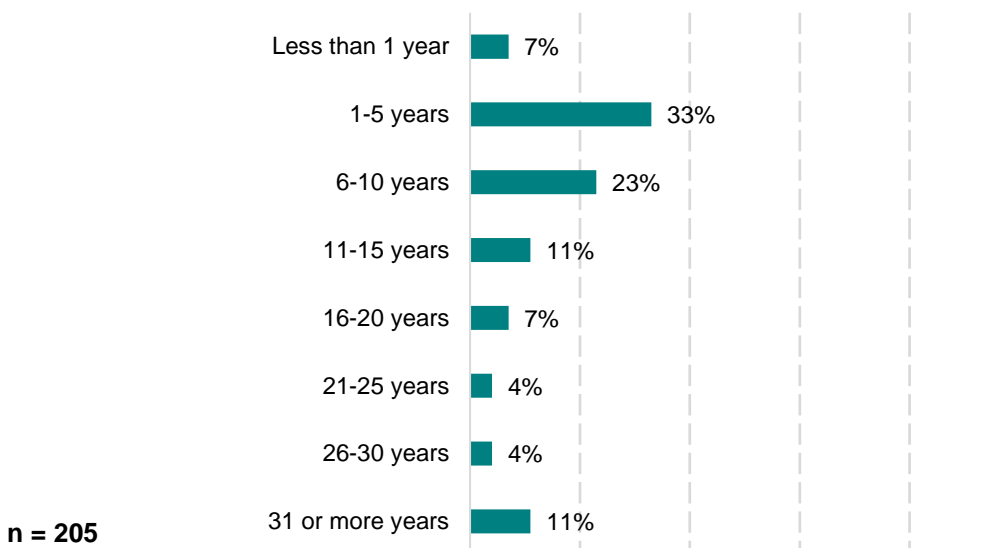
n = 205

## Years in Operation

Most survey respondents have been in operation for less than 10 years (63%).

Figure 4 displays the percentage of survey respondents belonging to organizations that have been in operation for the given ranges of years.

**Figure 4: Years in Operation**



n = 205

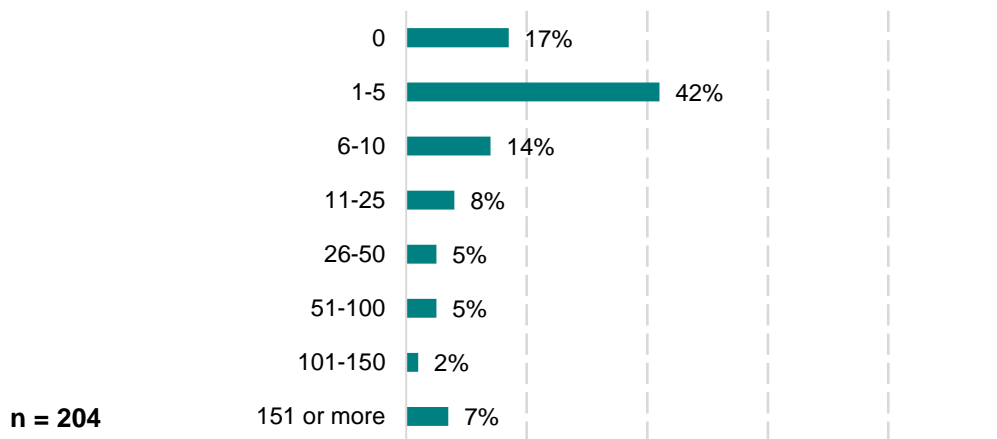


## Number of Employees

The majority of survey respondents (59%) employed five or fewer employees. Approximately one-third of survey respondents employed between six and 100 employees, while 9% employed over 100 employees.

Figure 5 displays the percentage of survey respondents with a total number of employees in each of the given ranges.

**Figure 5: Number of Employees<sup>10</sup>**

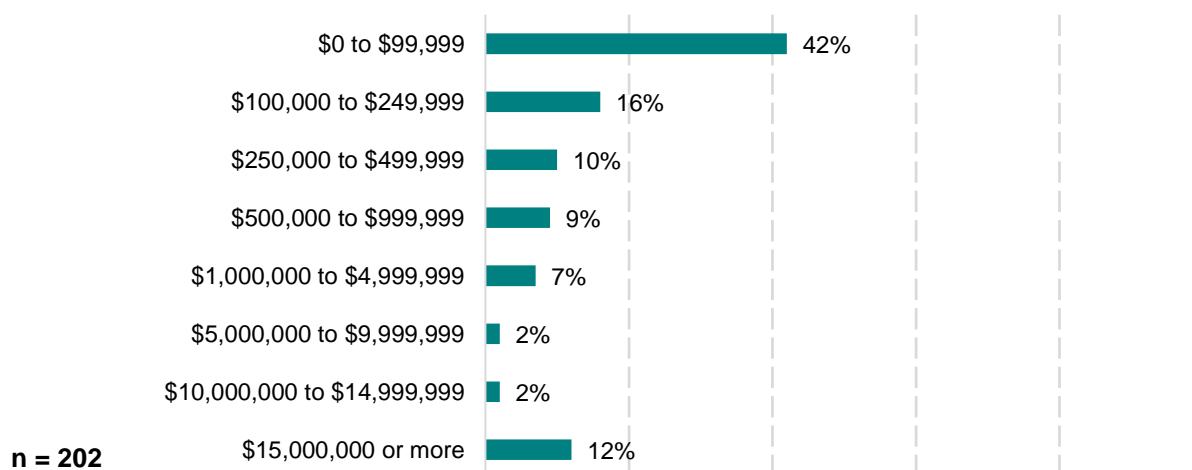


## Annual Sales

Most survey respondents (68%) had \$499,999 or less in annual sales in 2017.

Figure 6 displays the percentage of survey respondents with annual total sales in the given ranges.

**Figure 6: Annual Total Sales in 2017**



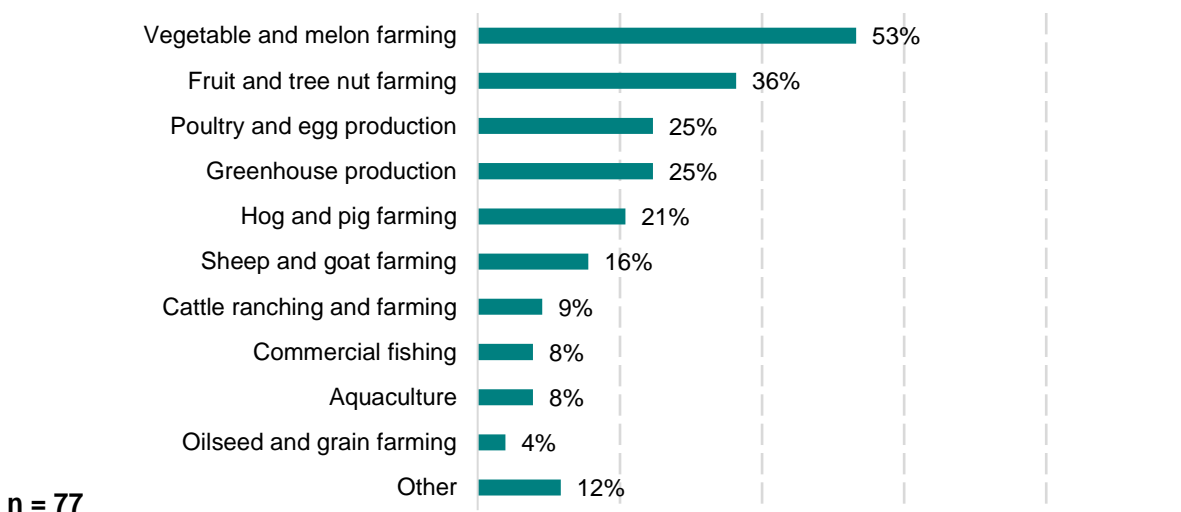
<sup>10</sup> This includes permanent, seasonal and casual workers but excludes the owner and contract employees.

## Agriculture/Seafood Product Classification

Survey respondents that identified as agriculture/seafood producers were asked to select all categories they would use to classify their products.

Figure 7 displays the percentage of respondents that classified their products in the given agriculture/seafood categories.

**Figure 7: Agriculture/Seafood Product Classification<sup>11</sup>**



<sup>11</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Food Processing Product Classification

Survey respondents that identified as food processors or both primary or secondary processor and an agriculture/seafood producer were asked to select all categories they would use to classify their products.

Figure 8 displays the percentage of respondents that classified their products in the given food processing categories.

**Figure 8: Food Processing Product Classification<sup>12,13</sup>**

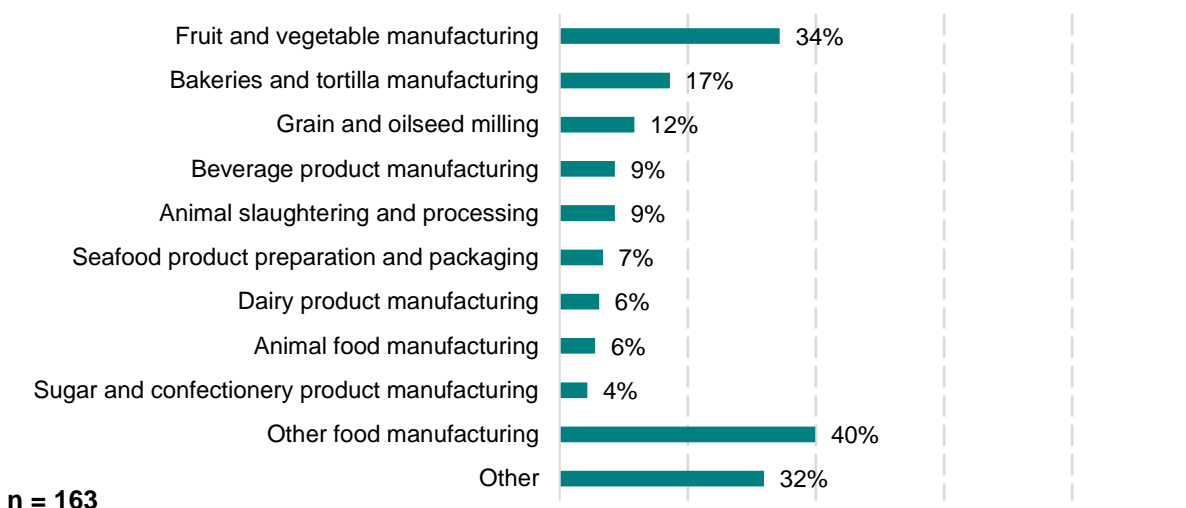
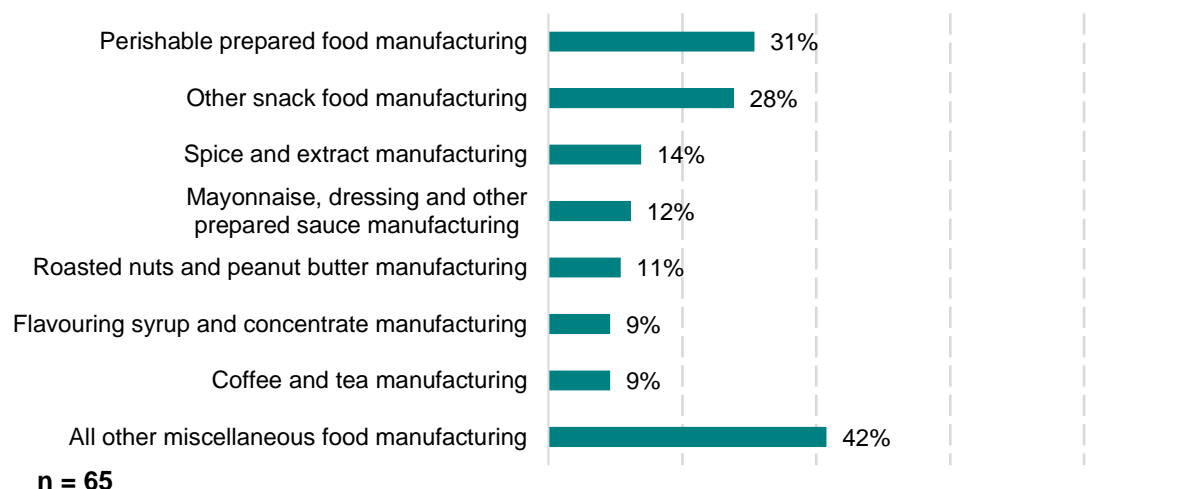


Figure 9 displays the percentage of respondents that classified their products in the given food processing categories, among those that selected “Other food manufacturing”.

**Figure 9: “Other Food Manufacturing” Product Classification**



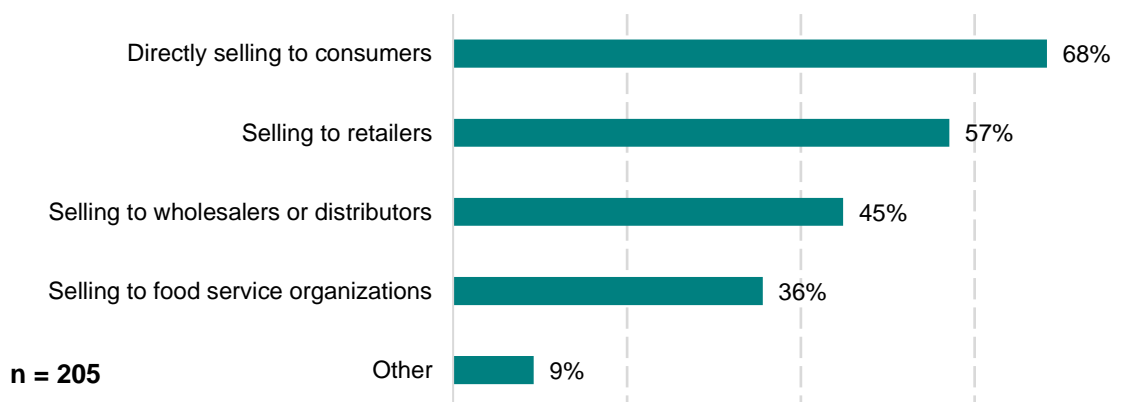
<sup>12</sup> “Other” includes survey respondents that provided their own product classification. Some of these classifications included protein powder manufacturing, kombucha manufacturing, and vegan and gluten-free product manufacturing.

<sup>13</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Distribution Channels

Survey respondents were asked to identify their distribution channels. Respondents reported a wide range of distribution channels for their products including selling directly sell to consumers; selling to retailers; selling to wholesalers or distributors; or, selling to food service organizations.

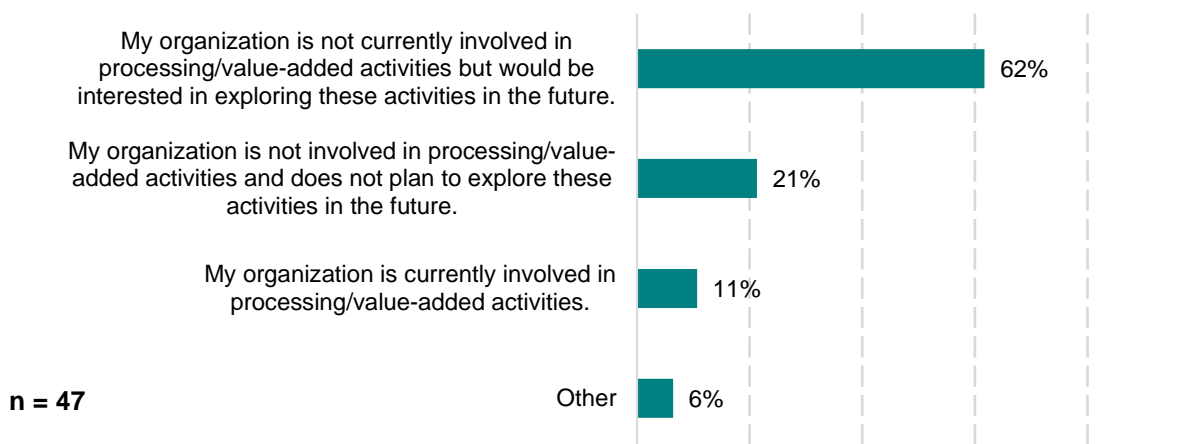
**Figure 10: Distribution Channels<sup>14</sup>**



## Agriculture/Seafood Producers' Involvement with Processing/Value-Added Activities

Survey respondents that identified as agriculture/seafood producers were asked to report their involvement with processing/value-added activities. The majority of respondents to this question (62%) indicated they were not currently involved in processing or value-added activities but would be interested in exploring these opportunities in the future.

**Figure 11: Involvement with Processing/Value-Added Activities**

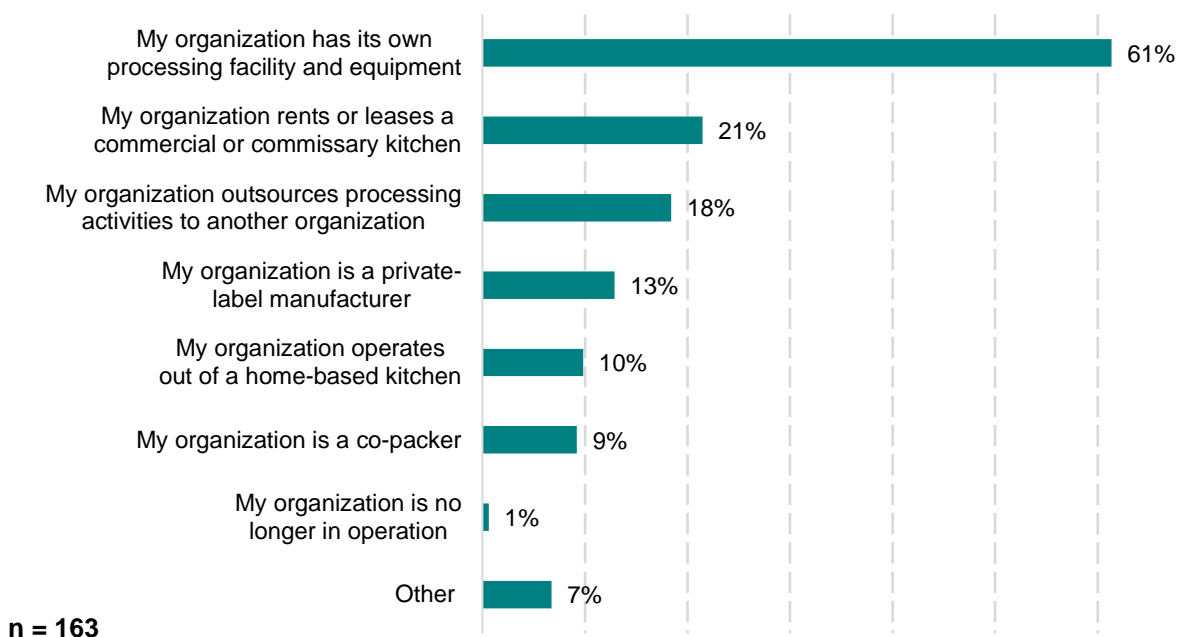


<sup>14</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Characteristics of Processing Operations

Survey respondents that identified as food processors or both primary or secondary processor and an agriculture/seafood producer were asked what best describes the characteristics of their processing operation. The majority of respondents to this question indicated that they owned their own processing facility and equipment (61%).

**Figure 12: Characteristics of Processing Operation<sup>15</sup>**

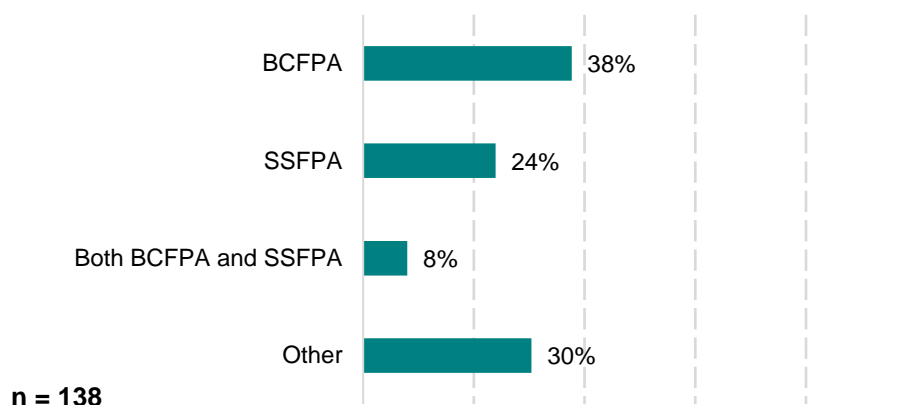


<sup>15</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Membership

Survey respondents were asked to list industry associations, councils, boards and commissions to which they belong. Of the survey respondents that provided an answer, the majority (70%) belong to the BCFPA, the SSFPA or both. The remaining respondents (30%) belong to other industry associations including the Canadian Organic Trade Association, the Certified Organic Associations of British Columbia, and the BC Association of Farmers' Markets. For a detailed list of all the other industry associations, councils, boards or commissions listed by survey respondents, please refer to **Appendix B (Memberships)**.

**Figure 13: Membership with Associations, Councils, Boards and Commissions** <sup>16</sup>



<sup>16</sup> "Other" included the aforementioned Canadian Organic Trade Association, Certified Organic Associations of British Columbia and the BC Association of Farmers' Markets, as well as the BC Food Protection Association, BC Dairy Association, BC Vegetable Marketing Commission, BC Food Technologists, BC Wine Institute, BC Shellfish Growers Association, BC Salmon Marketing Council, BC Association of Abattoirs, Canadian Aquaculture Industry Alliance, and many others. For a detailed list of all the other industry associations, councils, boards or commissions listed by survey respondents, please refer to Appendix B (Memberships).

## 4.2. Innovation and Processing-Related Resources and Services Needs

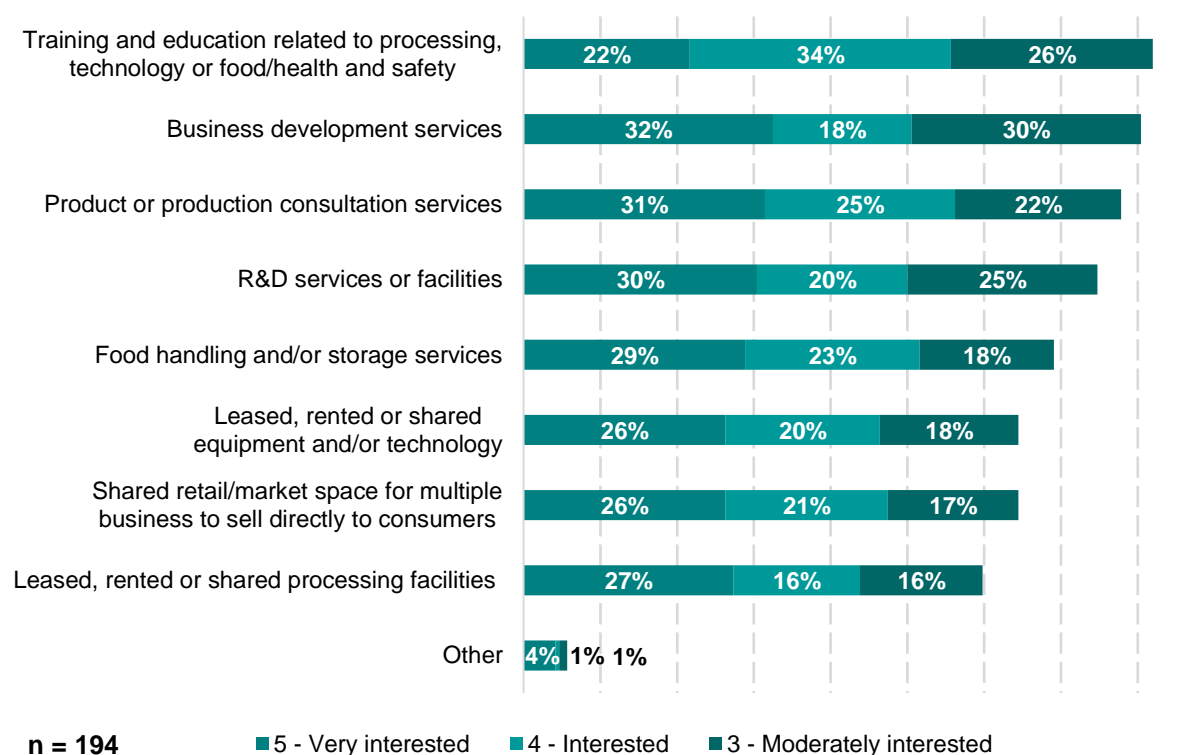
### Resources and Services Needs

Survey respondents that identified as a “primary or secondary processor”, “both a primary or secondary processor and an agriculture/seafood producer” and “agriculture/seafood producers that are not currently involved in processing/value-added activities but would be interested in exploring these activities in the future” were asked to rate a number of resources and services. These ratings were based on their level of interest in accessing the resources and services through the Food Hub Network.

The resources and services in which respondents expressed the highest level of interest in accessing through the Food Hub Network were training and education related to processing, technology or food/health and safety; business development services; and, product or production consultation services. A substantial number of respondents also indicated they would be very interested in accessing R&D services or facilities and food handling and/or storage services.

Figure 14 displays the percentage of survey respondents with a moderate to high interest level in the given resources and services.

**Figure 14: Interest in Accessing Resources and Services through the Food Hub Network<sup>17</sup>**



*Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5).*

<sup>17</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.



The level of interest in resources and services was high and varied across regions:

- Survey respondents from the South Coast region reported strongest interest in training and education related to processing technology or food/health and safety; business development services; and product or production consultation services.
- Survey respondents from the Vancouver Island/Coast region reported strongest interest in training and education related to processing technology or food/health and safety; business development services; and product or production consultation services.
- Survey respondents from the Okanagan region reported strongest interest in business development services; product or production consultation services; and R&D services or facilities.
- Survey respondents from Other regions reported strongest interest in training and education related to processing technology or food/health and safety; food handling and/or storage services; and leased, rented or shared equipment and/or technology.

Table 1 displays the percentage of survey respondents with a moderate to high interest level in the given resources or services, by region.

**Table 1: Level of Interest in Resources and Services by Region**

Resources and/or Services	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Training and education related to processing, technology or food/health and safety	88%	73%	69%	83%	82%
Business development services	84%	73%	90%	70%	80%
Product or production consultation services	81%	73%	72%	77%	78%
R&D services or facilities	77%	70%	72%	73%	75%
Food handling and/or storage services	70%	58%	66%	80%	70%
Leased, rented or shared equipment and/or technology	62%	64%	59%	80%	64%
Shared retail/market space for multiple business to sell directly to consumers	62%	64%	62%	77%	64%
Leased, rented or shared processing facilities	57%	61%	59%	70%	59%
Other	7%	6%	0%	7%	6%

*Note: Level of interest was measured on a 5-point scale ranging from "Not at all interested" (1) to "Very interested" (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.*

The level of interest in resources and services also varied by organization size:

- Survey respondents from small organizations (under \$500,000 in total annual sales) reported strongest interest in training and education related to processing technology or food/health and safety; business development services; and product or production consultation services.
- Survey respondents from medium organizations (between \$500,000 and \$4,999,999 in total annual sales) reported strongest interest in business development services; product or production consultation services; and R&D services or facilities.
- Survey respondents from large organizations (\$5,000,000 or more in total annual sales) reported strongest interest in training and education related to processing technology or food/health and safety; and, product or production consultation services.

Table 2 displays the percentage of survey respondents with a moderate to high interest level in the given resources or services, by organization size.

**Table 2: Level of Interest in Resources and Services by Organization Size**

Resources and/or Services	Small	Medium	Large	All respondents
Training and education related to processing, technology or food/health and safety	81%	78%	87%	82%
Business development services	85%	81%	57%	80%
Product or production consultation services	76%	81%	80%	78%
R&D services or facilities	75%	81%	63%	75%
Food handling and/or storage services	73%	63%	57%	70%
Leased, rented or shared equipment and/or technology	74%	47%	43%	64%
Shared retail/market space for multiple business to sell directly to consumers	72%	69%	27%	64%
Leased, rented or shared processing facilities	70%	50%	27%	59%
Other	7%	3%	3%	6%

Note: Level of interest was measured on a 5-point scale ranging from "Not at all interested" (1) to "Very interested" (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.

The level of interest in resources and services also varied by type of organizations:

- Survey respondents that identified as primary or secondary processors reported strongest interest in training and education related to processing technology or food/health and safety; business development services; and product or production consultation services.
- Survey respondents that identified as agriculture/seafood producers interested in exploring processing/value-added activities in the future reported strongest interest in training and education related to processing technology or food/health and safety; business development services; and food handling and/or storage services.
- Survey respondents that identified as both agriculture/seafood producers and primary or secondary processors reported strongest interest in training and education related to processing technology or food/health and safety; and business development services.

Table 3 displays the percentage of survey respondents with a moderate to high interest level in the given resources or services, by organization type.

**Table 3: Level of Interest in Resources and Services by Organization Type**

Resources and/or Services	Primary or Secondary Processor	Agriculture/ Seafood Producer	Both (Primary or Secondary Processor and Agriculture/ Seafood Producer)	All Respondents
Training and education related to processing, technology or food/health and safety	83%	88%	74%	82%
Business development services	83%	88%	66%	80%
Product or production consultation services	82%	78%	63%	78%
R&D services or facilities	79%	72%	63%	75%
Food handling and/or storage services	66%	88%	63%	70%
Leased, rented or shared equipment and/or technology	63%	84%	51%	64%

Resources and/or Services	Primary or Secondary Processor	Agriculture/ Seafood Producer	Both (Primary or Secondary Processor and Agriculture/ Seafood Producer)	All Respondents
Shared retail/market space for multiple business to sell directly to consumers	62%	84%	54%	64%
Leased, rented or shared processing facilities	59%	81%	43%	59%
Other	4%	13%	6%	6%

Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.

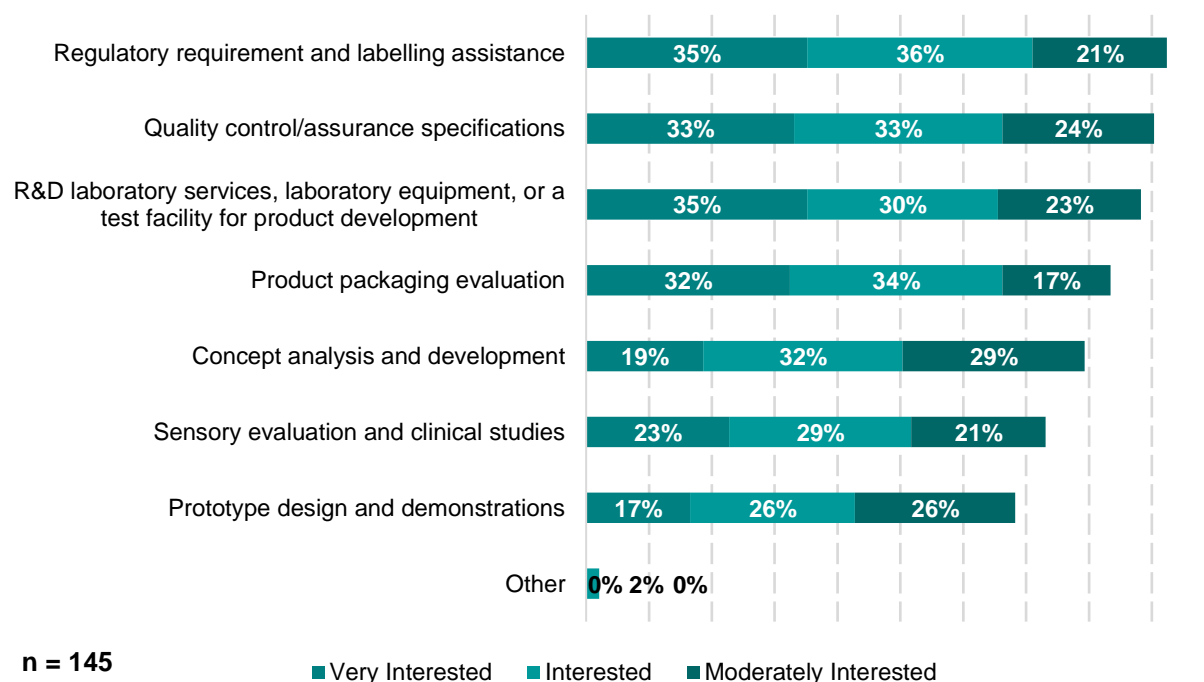
### Research and Development (R&D) Services and Facilities Needs

Survey respondents that provided a rating of 3 or higher in interest in “R&D services or facilities” were then asked to rate a number of specific R&D services and facilities. These ratings were based on their organization’s level of interest in accessing the R&D services and facilities through the Food Hub Network.

Regulatory requirement and labelling assistance; quality control/assurance specifications; and, R&D laboratory services, laboratory equipment, or a test facility for product development were the top three R&D services of interest. Additionally, there are various other R&D services and facility needs of interest to respondents, as shown in the figure below.

Figure 15 displays the percentage of survey respondents with a moderate to high interest level in the given R&D services and facility needs.

**Figure 15: Interest in Accessing R&D Services and Facilities through the Food Hub Network <sup>18</sup>**



Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.

<sup>18</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

The types of R&D services and facilities respondents were interested in were similar across geographic regions, however respondents from the South Coast region reported higher interest in product packaging evaluation; concept analysis and development; and, prototype design and demonstrations, compared to all survey respondents.

Please see **Appendix B (Research and Development (R&D) Services and Facilities Needs)** for tables displaying the responses to this question by region.

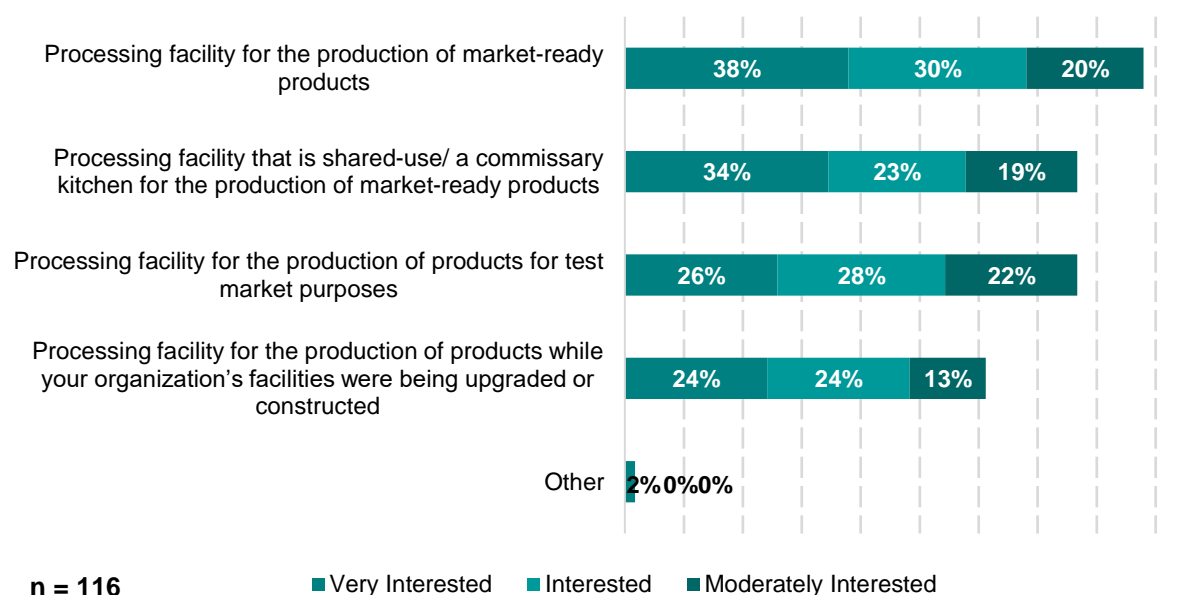
### Processing Facility Needs

Survey respondent that provided a rating of 3 or higher in interest in “leased, rented or shared processing facilities” were then asked to rate a number of specific types of processing facilities based on their organization’s level of interest in accessing them through the Food Hub Network.

Processing facility for the production of market-ready products was the highest rated type of processing facility of interest, measured both by respondents that were very interested and respondents that were at least moderately interested. Additionally, there are various other types of processing facilities of interest to respondents, as shown in the figure below.

Figure 16 displays the percentage of survey respondents with a moderate to high interest level in the given types of processing facilities.

**Figure 16: Interest in Accessing Processing Facilities through the Food Hub Network<sup>19</sup>**



*Note: Level of interest was measured on a 5-point scale ranging from “Not at all interested” (1) to “Very interested” (5). Percentage of level of interest refers to survey respondents that rated 3 to 5.*

The types of processing facilities respondents were interested in were similar across geographic regions, however respondents from Vancouver Island/Coast reported less interest in all types of processing facilities except for a processing facility that is shared-use/ a commissary kitchen for the production of market-ready products.

The types of processing facilities respondents were interested in were also similar across organizations of different sizes, however respondents that identified as medium and large organizations reported less

<sup>19</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

interest in processing facilities that are a shared-use/ a commissary kitchen for the production of market-ready products, compared to survey respondents that identified as small organizations.

Please see **Appendix B (Processing Facility Needs)** for tables displaying the responses to this question by region and organization size.

Of those that ranked 3 or higher in interest in any type of processing facility, 36 organizations reported they would require a facility or an area of the facility to be allergen free. The top three allergens of concern were gluten, wheat and triticale, and peanuts. It was also indicated that facilities would need to be free of other allergens. Details on these additional allergens are included in **Appendix B (Allergens)**.

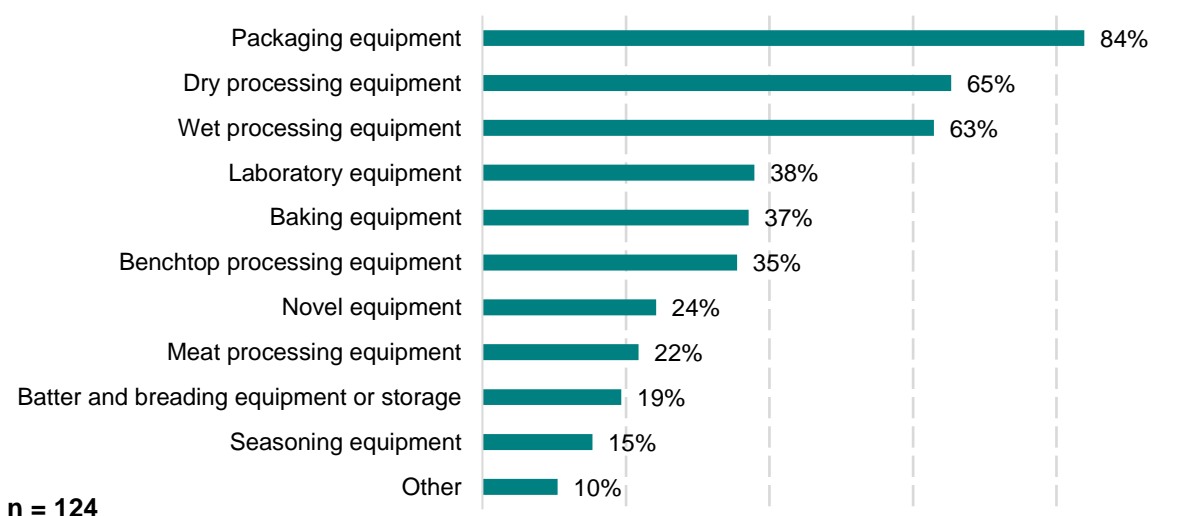
### *Equipment Needs*

Survey respondents that provided a rating of 3 or higher in interest in “leased, rented or shared equipment and/or technology” were then asked to specify the categories of equipment they would be interested in accessing through the Food Hub Network.

Packaging equipment; dry processing equipment; and, wet processing equipment were the top three categories of interest for equipment.

Figure 17 displays the percentage of respondents that were interested in accessing the given categories of equipment.

**Figure 17: Interest in Accessing Equipment through the Food Hub Network<sup>20</sup>**



The types of equipment respondents were interested in were varied across regions:

- Survey respondents from the South Coast region reported a higher level of interest in laboratory equipment, compared to all survey respondents.
- Survey respondents from Vancouver Island/Coast reported a lower level of interest in novel equipment, compared to all survey respondents.
- Survey respondents from the Okanagan reported a higher level of interest in dry processing equipment, compared to all survey respondents.

<sup>20</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

- Survey respondents from Other regions reported a higher level of interest in packaging equipment and meat processing equipment, compared to all survey respondents.

The types of equipment respondents were interested in were similar across organizations of different sizes, however respondents from large organizations were more interested in laboratory equipment, benchtop processing equipment, novel equipment and seasoning equipment, compared to all survey respondents.

Please see **Appendix B (Equipment Needs)** for tables displaying the responses to this question by region and organization size.

For each category of equipment selected, survey respondents were then asked to indicate the specific equipment they would be most interested in accessing through the Food Hub Network.

The top three types of equipment within each category are listed in Table 4. A full list of equipment that survey respondents specified interest in is included in **Appendix B (Equipment)**.

**Table 4: Top Three Equipment Types by Category**

Dry Processing Equipment (n=80)		Wet Processing Equipment (n=73)	
Dehydration equipment	70%	Kettles	62%
Drying/Cooling equipment	55%	Mixers	59%
Blenders	49%	Processing vats	49%
Meat Processing Equipment (n=26)		Benchtop Processing Equipment (n=43)	
Stuffers	81%	Food Processors	88%
Slicers/Dicers	77%	Blenders	79%
Grinders	73%	Mixers	72%
Batter and Breading Equipment (n=24)		Baking Equipment (n=46)	
Ovens	88%	Commercial convection ovens	78%
Freezers	67%	Mixers	59%
Breading applicators	50%	Dough preparation machines	46%
Seasoning Equipment (n=15)		Packaging Equipment (n=102)	
Spray dynamics flavoring and coating equipment	73%	Labellers	76%
Seasoning tumblers	73%	Vacuum Packagers	68%
On-machine seasoning equipment	47%	Sealers	65%
Laboratory Equipment (n=40)		Novel Equipment (n=116) <sup>21</sup>	
Moisture analyzers	70%	High pressure processing equipment that extends shelf-life of products while retaining the nutrition	49%
Incubators	48%	Pulsed UV light equipment	38%
Microscopes	45%	Agitation thermal processing that produces high-nutrient shelf-stable canned food products	30%

<sup>21</sup> Please note that all survey respondents interested in equipment were asked to indicate their interest in specific types of novel equipment, regardless of their response to the previous question, which is summarized in Figure 16 of this report. As such, the number of survey participants that selected specific novel equipment is higher in Table 4 than in Figure 16.

Additional equipment that survey respondents were interested in included:

- Bottling equipment
- Juice pressing equipment
- Smoked/cured meat processing equipment
- Oil presses
- Distillation equipment
- Light sorting equipment
- Organic certified facilities

### ***Additional Resources and Services***

Survey respondents were asked if there were any additional resources and/or services they would be interested in accessing through the Food Hub Network. A summary of select responses is provided below.

- **Financing and funding support.** Several survey respondents indicated they would be interested in accessing financing programs or funding support. Both access to simpler financing options and assistance with funding applications for funding were of interest to survey respondents.
- **Networking.** Several survey respondents indicated they were interested in accessing networking events through the Food Hub Network. In addition, respondents were interested in resources that could help them improve the ease of establishing relationships with stakeholders across the supply chain (e.g. food distributors, food brokers, food scientists).
- **Co-packing services.** Several survey respondents indicated a need for co-packing services. Conversely, survey respondents that provide co-packing services showed interest in provided these services to other organizations.
- **Small business consultation services.** Many survey respondents indicated a need for mentorship, coaching and/or consulting services related to operating a small business. Examples of areas of consultation services included understanding regulations, cross-border sales, distribution, and marketing.
- **Intellectual property support.** A number of survey respondents indicated an interest in accessing support or legal assistance related to intellectual property.



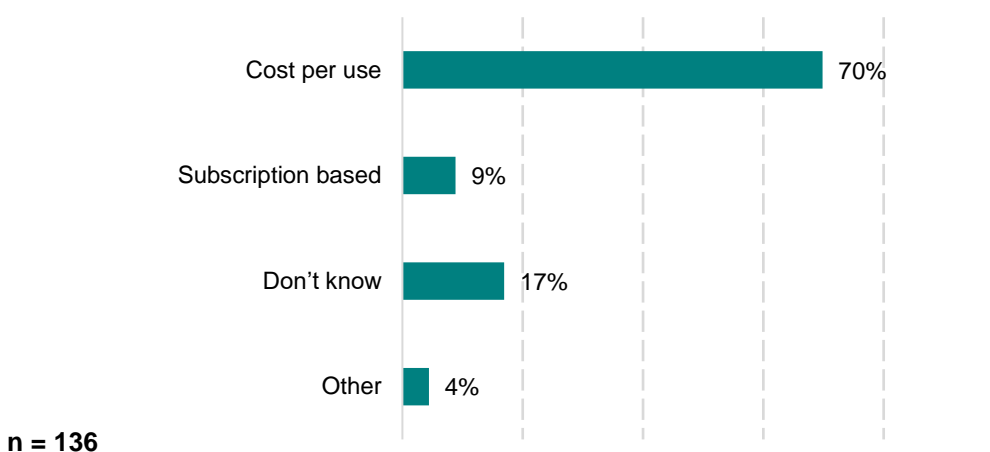
## Likelihood of Paying and Preferred Pricing Models for Resources and/or Services

Survey respondents were asked to rate their likelihood of paying for resources and services of interest through the Food Hub Network.<sup>22</sup>

The majority of survey respondents (75%) provided a rating or 3 or higher on the likelihood of paying for the Food Hub Network's resources and/or services. Survey respondents that rated 3 or higher on the likelihood of paying for resources and services of interest through the Food Hub Network were then asked to specify their preferred pricing model.

Cost per use was the most preferred pricing model, with 70% of survey respondents selecting this option. A number of survey respondents also provided suggestions for other pricing models. An example included a membership model with different tiers of privileges combined with a cost per use option for services that fall outside of their membership benefits.

**Figure 18: Preferred Pricing Models for the Food Hub Network's Resources and/or Services**



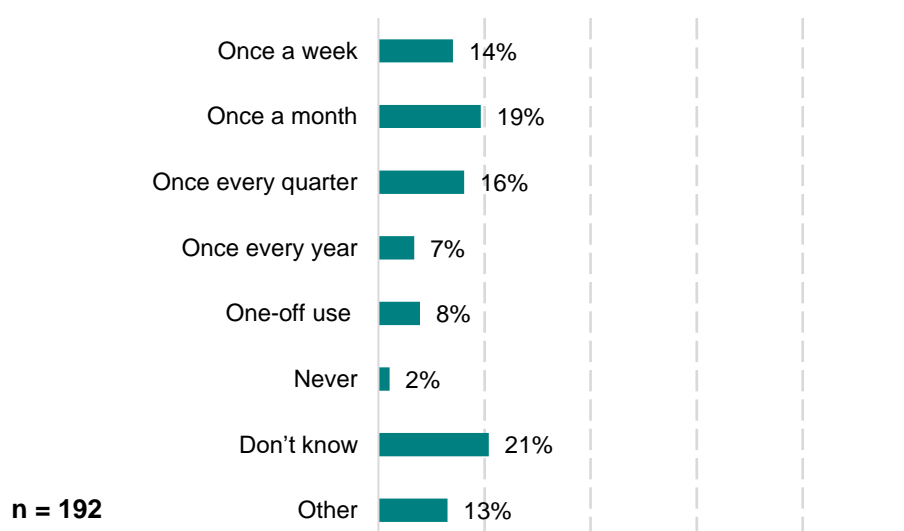
<sup>22</sup> Survey respondents that identified as a "primary or secondary processor", "both a primary or secondary processor and an agriculture/seafood producer" and "agriculture/seafood producers that are not currently involved in processing/value-added activities but would be interested in exploring these activities in the future" were asked this question.

## Frequency of Use of Resources and Services

Survey respondents were asked how often they would use the resources and services of interest through the Food Hub Network.<sup>23</sup>

Once a month; once every quarter; and, once a week were the top three levels of frequency of use for resources and services of interest. Respondents that selected Other indicated that the frequency of use would depend upon the resources/services offered, location of the resources/services, and cost.

**Figure 19: Frequency of Use for the Food Hub Network's Resources and/or Services**



The indicated frequency of use for the Food Hub Network's resources and/or services varied by the resources and services survey respondents were interested in accessing. Generally, survey respondents that indicated at least moderate interest in accessing all resources or services were more interested in once a month use, compared to all respondents. Survey respondents that were interested in accessing leased, rented or shared processing facilities were more interested in once a week use than other respondents. Aside from this, there were no major differences in responses to this question across the resources and services survey respondents were interested in accessing.

<sup>23</sup> Survey respondents that identified as a "primary or secondary processor", "both a primary or secondary processor and an agriculture/seafood producer" and "agriculture/seafood producers that are not currently involved in processing/value-added activities but would be interested in exploring these activities in the future" were asked this question.

## Additional Factors to be Considered in the Development of the Food Hub Network

Survey respondents were asked to provide input on other factors that should be considered to ensure the successful development and implementation of the Food Hub Network. A summary of select responses is provided below.

- **Proximity to Food Hub Nodes.** The location of the Food Hub Nodes was a very important factor to many survey respondents. This is because survey respondents indicated their willingness to use the Food Hub Network's resources and services will be dependent on the proximity of the Food Hub Nodes to their operations.
- **Affordability.** The cost of accessing the resources and services available through the Food Hub Network was a factor noted by many survey respondents. This is because many respondents, including small-scale food processing organizations, indicated that they would only be interested in accessing the Food Hub Network if its resources and services are affordable.
- **Ease of access.** Some survey respondents want ease of access to the resources and services available through the Food Hub Network. For example, flexible operating hours and making the resources and services available to everyone.
- **Effective communication and marketing.** A number of survey respondents recommended that ensuring strong communication and collaboration between processing organizations and within communities in which Food Hub Nodes are located is important. Survey respondents indicated that resources and services need to be well marketed to the BC food and beverage processing industry to ensure the success of the Food Hub Network.
- **Maintaining confidentiality.** Some survey respondents noted their concerns about privacy and confidentiality in shared processing facilities. For example, they mentioned that controls and contracts related to confidentiality need to be in place to guarantee that intellectual property is not compromised.
- **Collaboration with other organizations.** Several survey respondents indicated that collaboration with other agri-food related organizations is necessary for the development and implementation of the Food Hub Network. Examples of organizations include the Canadian Food Inspection Agency industry associations such as SSFPA, and farmers markets. In addition, survey respondents indicated the need to utilize existing provincial funding and/or support programs.

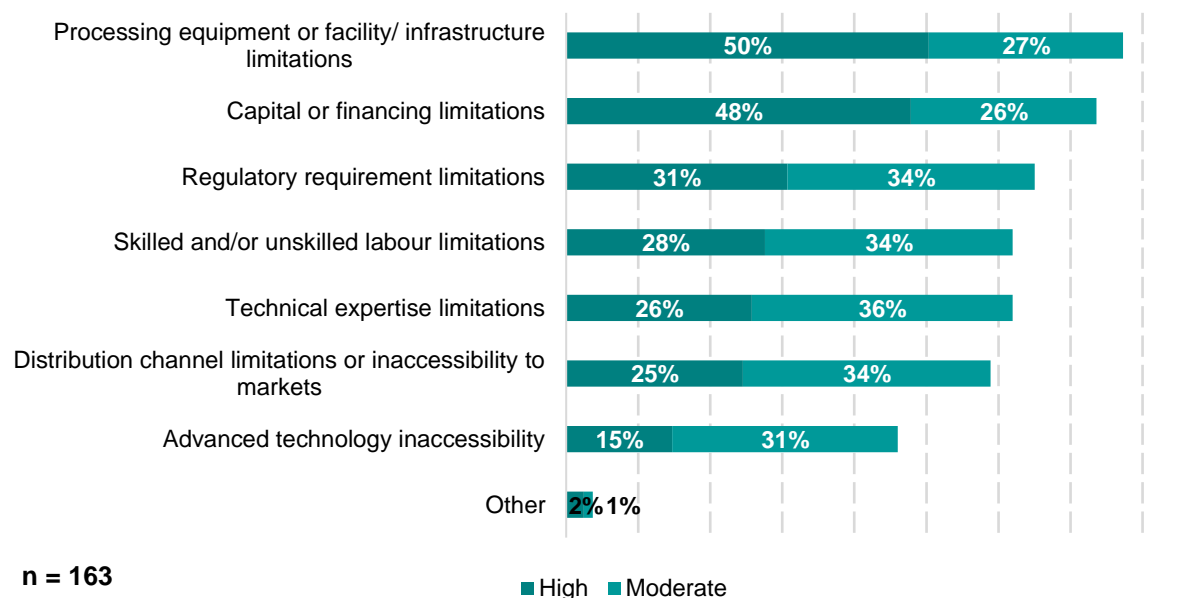
## 4.3. Factors and Strategies Impacting Organizational Growth

### Factors Constraining Organizations' Ability to Grow and Compete

Survey respondents were asked to rate the degree to which a number of factors constrained their ability to grow and/or compete over the last three years.<sup>24</sup>

The factors most respondents rated as moderate or high in severity of constraint were processing equipment or facility/infrastructure limitations, and capital or financing limitations.

**Figure 20: Factors Constraining Organizations' Ability to Grow and Compete<sup>25</sup>**



*Note: Degree of constraint was measured on a 3-point scale ranging from "Low" (1), to "Moderate" (2) to "High" (3). Percentage refers to survey respondents that rated 2 to 3.*

The factors constraining growth and competition were similar across geographic regions, however survey respondents from the Okanagan reported the highest level of constraint from processing equipment or facility/infrastructure limitations and capital or financing limitations.

The factors constraining growth and competition varied by organization size:

- Survey respondents from small organizations reported the highest level of constraint from processing equipment or facility/ infrastructure limitations and capital or financing limitations.
- Survey respondents from medium organizations reported the highest level of constraint from capital or financing limitations and technical expertise limitations.
- Survey respondents from large organizations reported the highest level of constraint from skilled and/or unskilled labour limitations and processing equipment or facility/ infrastructure limitations.

Please see **Appendix B (Factors Constraining Organizations' Ability to Grow and Compete)** for tables displaying the responses to this question by region and organization size.

<sup>24</sup> Survey respondents that identified as a "primary or secondary processor" and "both a primary or secondary processor and an agriculture/seafood producer" were asked this question.

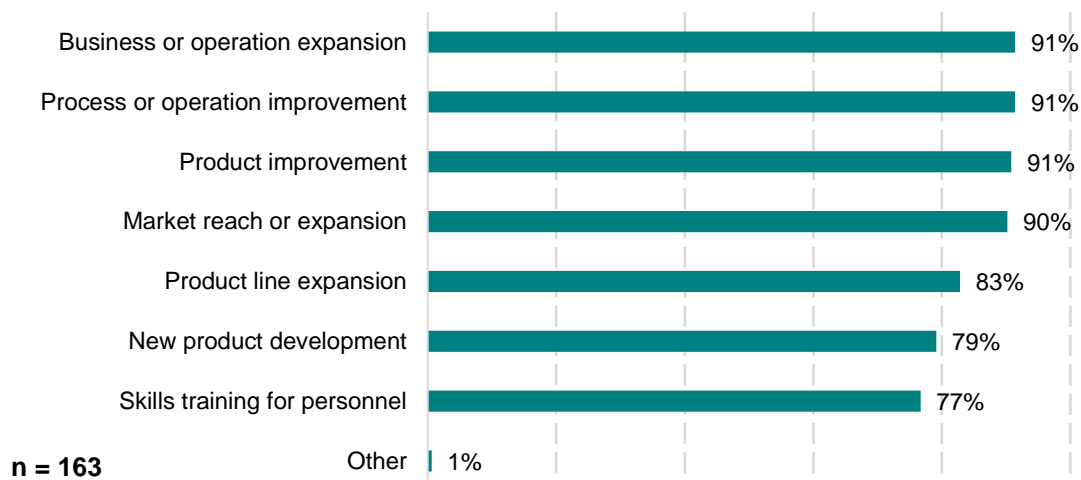
<sup>25</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Importance of Business/Operational Strategies to Organizational Growth

Survey respondents were asked to rate the importance of various business/operational strategies to the growth of their organization.<sup>26</sup>

The strategies most respondents rated as important were business or operation expansion; process or operation improvement; product improvement; and, market reach or expansion.

**Figure 21: Importance of Business/Operational Strategies to Organizational Growth<sup>27</sup>**



*Note: Level of importance was measured on a 5-point scale ranging from "Not at all important" (1) to "Very important" (5). Percentage of level of importance refers to survey respondents that rated 3 to 5.*

<sup>26</sup> Survey respondents that identified as a "primary or secondary processor" and "both a primary or secondary processor and an agriculture/seafood producer" were asked this question.

<sup>27</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

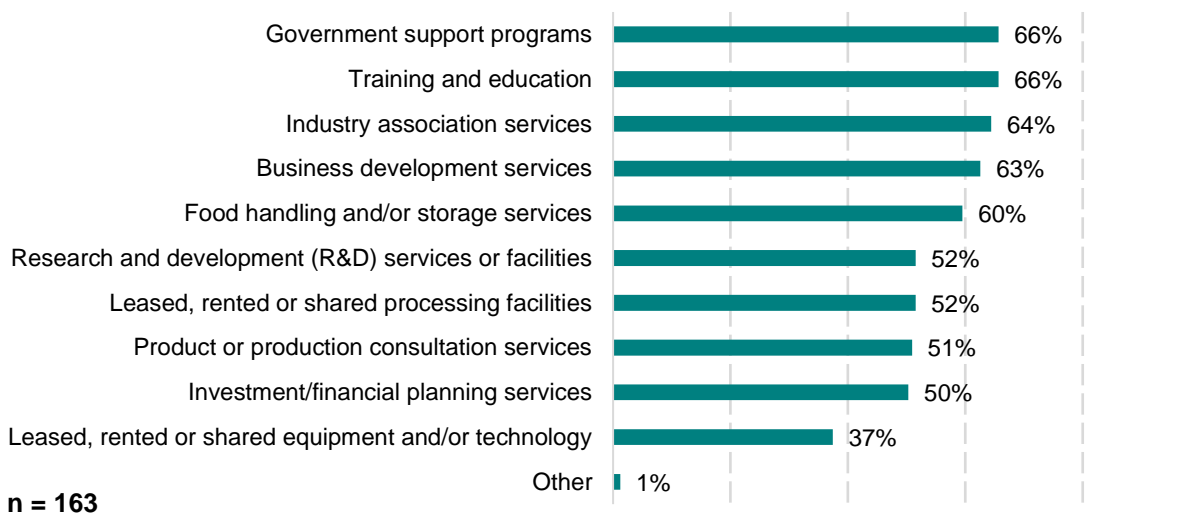
## 4.4. Use and Importance of Innovation and Processing-Related Resources and Services

### Use and Importance of Resources and Services

Survey respondents were asked to rate the importance of a number of resources and services in helping their organization grow/scale up.<sup>28</sup>

The resources and services most respondents rated as important to growth/scaling up were government support programs; training and education; and, industry association services.

**Figure 22: Importance of Resources and Services in Helping Organization's Grow/Scale Up<sup>29</sup>**



*Note: Level of importance was measured on a 5-point scale ranging from "Not at all important" (1) to "Very important" (5). Percentage of level of importance refers to survey respondents that rated 3 to 5.*

Survey respondents that provided a rating of 3 or higher in importance in R&D services or facilities were then asked to specify the types of R&D services, laboratories or equipment that they have commissioned. The top three types of R&D services and facilities were:

- R&D laboratory services, laboratory equipment, or a test facility for product development (61%)
- Regulatory requirements and labelling assistance (59%)
- Quality control/assurance specifications (51%)

Survey respondents that provided a rating of 3 or higher in importance in leased, rented or shared processing facilities were then asked to specify the types of processing facilities that they have leased, rented and/or shared. The top three types of processing facilities were:

- Processing facility for the production of market-ready products (66%)
- Processing facility that is shared-use/a commissary kitchen for the production of market-ready products (55%)

<sup>28</sup> Survey respondents that identified as a "primary or secondary processor" and "both a primary or secondary processor and an agriculture/seafood producer" were asked this question.

<sup>29</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

- Processing facility for the production of products for test market purposes (21%)

Survey respondents that provided a rating of 3 or higher in importance in leased, rented or shared equipment and/or technology were then asked to specify the types of equipment that they have leased, rented and/or shared by their organization. The top three types of equipment were:

- Wet processing equipment or storage (49%)
- Dry processing equipment (43%)
- Packaging equipment (39%)

Survey respondents that provided a rating of 3 or higher in importance in business development services were then asked to specify the services that have been commissioned by their organization. The top three types of services were:

- Brand development (55%)
- Business and strategic planning (49%)
- Marketing planning (48%)

A full list of specific resources and services that survey respondents indicated to have leased, rented, shared and/or commissioned are included in **Appendix B (Use of Resources and Services)**.



## 4.5. Activities and Obstacles Related to Innovation

### Development of Product and Process Innovations

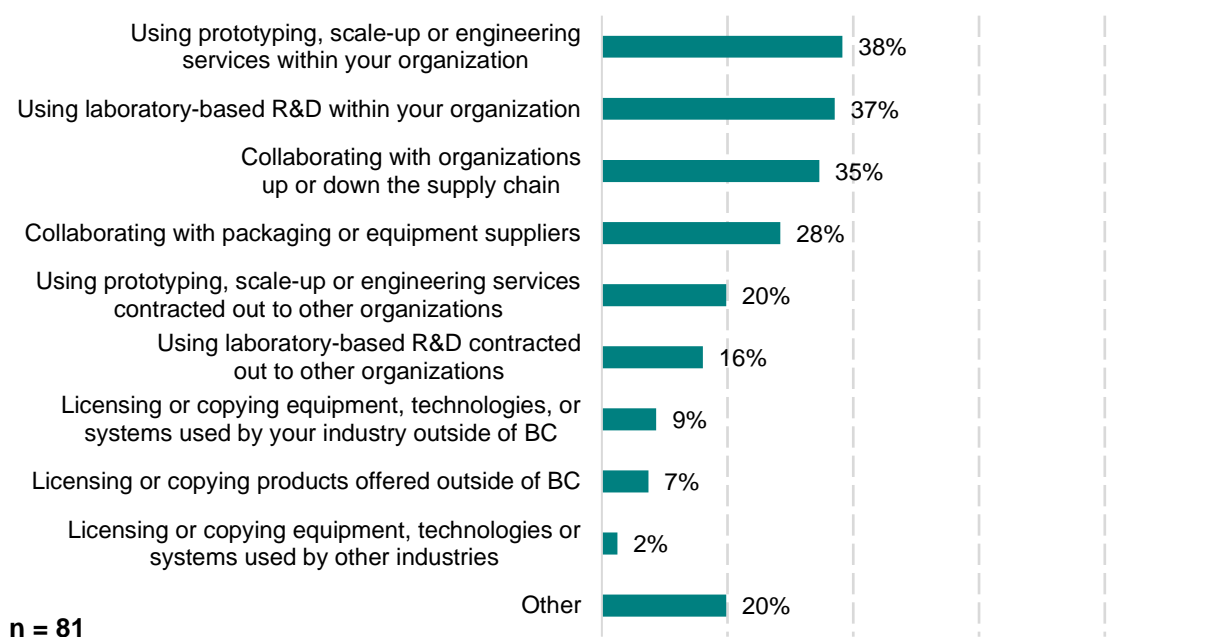
For the purpose of the survey, the following definitions were used for product and process innovations:

- **Product innovations** are both goods and services introduced by an organization whose fundamental characteristics or intended uses are new or differ significantly from other products or services produced by their industry in BC.
- **Process innovations** include production techniques, production processes, systems monitoring, and biotechnology processes introduced by an organization that are new to their industry in BC.

Approximately 54% of survey respondents indicated they had introduced product and/or process innovations.<sup>30</sup> Survey respondents that had introduced product and/or process innovations were then asked how these innovations were developed.<sup>31</sup>

The top three responses were using prototyping, scale-up or engineering services within your organization; using laboratory-based R&D within your organization; and, collaborating with organizations up or down the supply chain. Additionally, a number of organizations that selected other indicated they developed innovations in-house through trial and error.

**Figure 23: Development Methods for Product and/or Process Innovations<sup>32</sup>**



<sup>30</sup> Survey respondents that identified as a “primary or secondary processor” and “both a primary or secondary processor and an agriculture/seafood producer” were asked this question.

<sup>31</sup> Ibid.

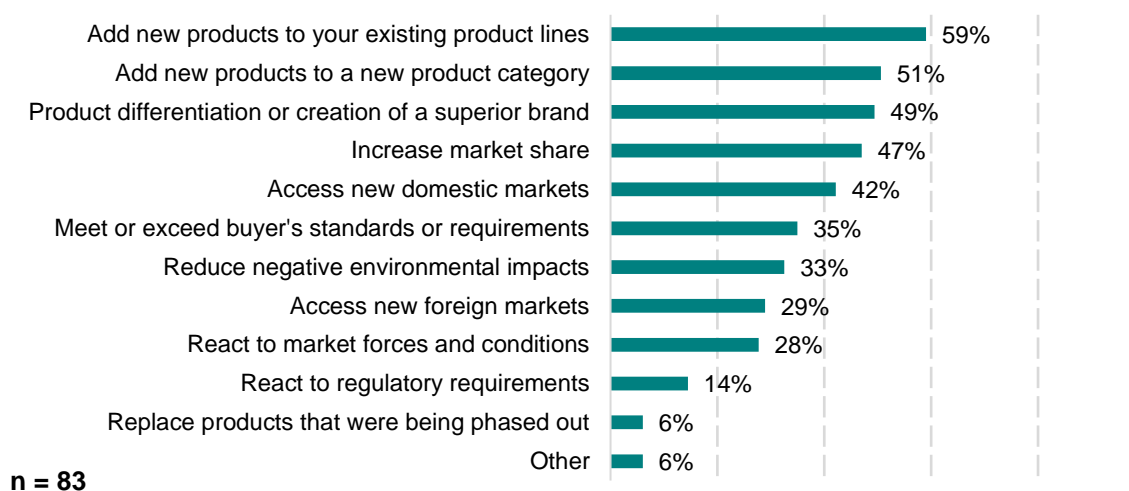
<sup>32</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Objectives of Product and Process Innovations

Survey respondents that had introduced product and/or process innovations were also asked to select what were the main objectives for introducing product innovations and process innovations.

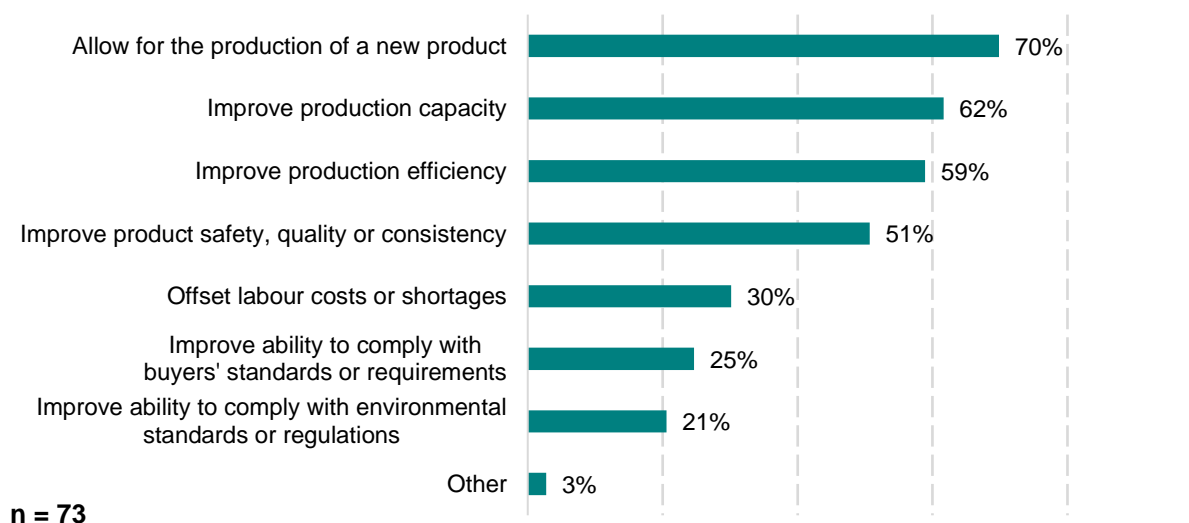
Adding new products to existing product lines; adding new products to a new product category; and, product differentiation or creation of a superior brand were the top three objectives for introducing product innovations.

**Figure 24: Main Objectives for Introducing Product Innovations<sup>33</sup>**



Allowing for the production of a new product; improving production capacity; and, improving production efficiency were the top three objectives for introducing process innovations.

**Figure 25: Main Objectives for Introducing Process Innovations<sup>34</sup>**



<sup>33</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

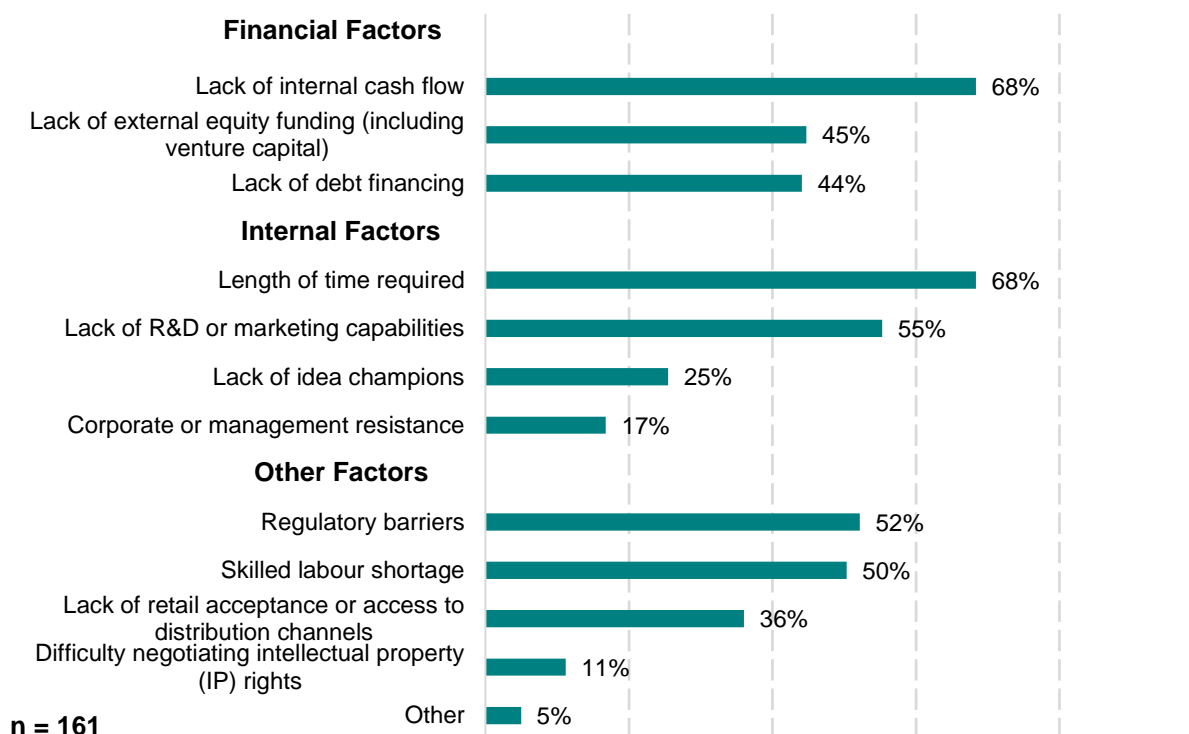
<sup>34</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Factors Limiting Innovation

Survey respondents were asked to rate the degree to which a number of factors limit their organizations' ability to introduce product or process innovations.<sup>35</sup>

Lack of internal cash flow; length of time required; and, lack of R&D or marketing capabilities were the top three factors limiting survey respondent's ability to introduce innovations.

**Figure 26: Factors Limiting Innovation<sup>36</sup>**



*Note: Level of importance was measured on a 3-point scale ranging from "Low" (1) to "Moderate" (2) to "High" (3). Percentage of level of importance refers to survey respondents that rated 2 to 3.*

<sup>35</sup> Survey respondents that identified as a "primary or secondary processor" and "both a primary or secondary processor and an agriculture/seafood producer" were asked this question.

<sup>36</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## 5. APPENDICES



# Appendix A – Food Hub Network Industry Survey

## Food Hub Network Industry Survey

### INTRODUCTION

The BC Ministry of Agriculture (“The Ministry”) in collaboration with the University of British Columbia (“UBC”) and industry partners, are in the process of developing a Food Hub Network, consisting of a Core Food Innovation Centre at UBC (“Core Innovation Centre”), as well as multiple regional centres (“Food Hub Nodes”) across British Columbia. The Core Innovation Centre will have a strong research and development focus, while the Food Hub Nodes will consist of regionally-tailored innovation or processing resources, equipment and services. The goal is for the Core Innovation Centre and Food Hub Nodes to facilitate access to processing facilities, equipment, technology, research and development, knowledge-sharing and innovation-related services for those involved or wanting to be involved in food and beverage processing or value-added activities across the province.

To guide the development of the Food Hub Network, the Ministry, UBC and industry partners are conducting a province-wide survey to identify the current needs, challenges and opportunities of BC food and beverage processors and those looking to enter the industry. The Ministry has commissioned MNP LLP (“MNP”), a major accounting, consulting and advisory firm, to conduct the survey.

The survey will gather information from your organization regarding its usage and/or needs of processing facilities and equipment, research and development services, product commercialization services and government support/programs. The survey will also gather information relating to your organization’s innovation related activities, goals, and obstacles.

If you have any questions regarding this survey, please contact Chelsea Sutherland, Business Program Analyst, Ministry of Agriculture, at [chelsea.sutherland@gov.bc.ca](mailto:chelsea.sutherland@gov.bc.ca).

Thank you in advance for your participation in this important survey!

#### What is involved with this survey?

The survey is comprehensive and will ask for detailed information. As a result, it will take approximately **20 minutes** to complete. This level of detail is important to enable the successful development of the Food Hub Network.

If you need to stop the survey partway through and complete it later, please follow the instructions at the bottom of each page. If you have questions or difficulties regarding the survey tool, please contact Andre Gailits of MNP, at [andre.gailits@mnp.ca](mailto:andre.gailits@mnp.ca) or by phone at 778.374.2129.

To ensure your response is included, please complete the survey by **December 7<sup>th</sup>, 2018**.

#### Who should complete this survey?

An Owner, President, Chief Executive Officer, General Manager, or someone familiar with your organization’s current use and needs of innovation or processing-related resources and services should complete this survey.

#### What about confidentiality?

MNP will maintain the confidentiality of all collected information. Individual responses will not be shared with any other party, and will not be made available to other organizations such as the BC Ministry of Agriculture. The results will be reported in a summary format, with any identifying information of the respondent removed.

MNP is committed to maintaining the security, confidentiality, and accuracy of the personal information we collect to provide the highest level of service to our clients. Our privacy policy adheres to both the guidelines and principles underlying the Personal Information Protection and Electronic Documents Act, as well as our own commitment to ensuring that clients are comfortable providing us with personal information. The MNP Privacy Policy can be viewed at [www.mnp.ca/en/privacy-policy](http://www.mnp.ca/en/privacy-policy).

#### About MNP

MNP is one of the largest accounting and consulting firms in Canada. National in scope and local in focus, MNP has proudly served individuals and public and private companies for more than 65 years. For more information, visit [www.mnp.ca](http://www.mnp.ca).



THE UNIVERSITY OF BRITISH COLUMBIA  
Faculty of Land and Food Systems



**Take the Survey**



## OVERVIEW OF YOUR ORGANIZATION

The following questions are for background purposes.

### 1. Where is your organization's headquarters located?

- ☐ Vancouver Island/Coast (includes Vancouver Island, Gulf Islands, and Powell River Regional District)
- ☐ South Coast (includes Fraser Valley Regional District, Metro Vancouver, and the southern portion of the Sunshine Coast and southwestern portion of the Squamish-Lillooet Regional Districts)
- ☐ Cariboo Chilcotin Coast (includes Cariboo Regional District as well as west to the Central Coast)
- ☐ Thompson Nicola (includes Thompson-Nicola Regional District and the northeast section of the Squamish-Lillooet Regional District)
- ☐ Okanagan (includes the western arm of Columbia-Shuswap, the Similkameen Valley, the Kettle River Valley, the North Okanagan, the South Okanagan and Central Okanagan Regional Districts)
- ☐ Kootenay (includes East and Central Kootenay, the southeast areas of Kootenay Boundary, and the southeast areas of Columbia-Shuswap)
- ☐ Omenica Skeena (includes Fraser-Fort George, Bulkley-Nechako, Kitimat-Stikine and Skeena-Queen Charlotte)
- ☐ Peace (includes Peace River Regional District and the Northern Rockies Regional Municipality)
- ☐ Other, please specify: \_\_\_\_\_

### 2. How many years has your organization been in operation?

- ☐ Less than 1 year
- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ 21-25
- ☐ 26-30
- ☐ 31 or more

### 3. What is your role within your organization?

### 4. Which of the following best describes your organization? *Please select one only.*

- ☐ Agriculture/seafood producer (e.g., crop and animal farming/production, greenhouse production)
- ☐ Primary or secondary processor (e.g., food or beverage processing, natural health product processing)
- ☐ Both an agriculture/seafood producer and primary or secondary processor

### 5. **[If agriculture/seafood producer or both agriculture/seafood producer and processor]** Which of the following categories would your organization use to classify its agriculture/seafood products? *Please select all that apply.*

- ☐ Oilseed and grain farming
- ☐ Vegetable and melon farming
- ☐ Fruit and tree nut farming

- ☐ Greenhouse production
- ☐ Cattle ranching and farming
- ☐ Hog and pig farming
- ☐ Poultry and egg production
- ☐ Sheep and goat farming
- ☐ Aquaculture
- ☐ Commercial fishing
- ☐ Other, please specify: \_\_\_\_\_

6. **[If agriculture/seafood producer]** Which of the following best describes your organization's involvement with processing/value-added activities? *Please select one only.*

- ☐ My organization is currently involved in processing/value-added activities.
- ☐ My organization is not currently involved in processing/value-added activities but would be interested in exploring these activities in the future.
- ☐ My organization is not involved in processing/value-added activities and does not plan to explore these activities in the future.
- ☐ Other, please specify: \_\_\_\_\_

**[If agriculture producer involved in processing/value-added activities or both agriculture/seafood producer and processor]**

Please note: For the remainder of the survey, please answer all questions from the perspective of your

7. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Which of the following describes your organization? *Please select all that apply.*

- ☐ My organization operates out of a home-based kitchen
- ☐ My organization has its own processing facility and equipment
- ☐ My organization rents or leases a commercial or commissary kitchen (e.g., commercial-grade facilities that are licensed for the preparation and/or storage of food)
- ☐ My organization is a co-packer (e.g., packages products for clients)
- ☐ My organization is a private-label manufacturer (e.g., makes goods under contract for a retailer or supplier with their brand and label)
- ☐ My organization outsources processing activities to another organization
- ☐ My organization is no longer in operation
- ☐ Other, please specify: \_\_\_\_\_

8. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Which of the following categories would your organization use to classify its products? *Please select all that apply.*

Animal Food Manufacturing:

- ☐ Dog and cat food manufacturing
- ☐ Other animal food manufacturing

Grain and Oilseed Milling:

- ☐ Flour milling



- ☐ Rice milling
- ☐ Malt manufacturing
- ☐ Wet corn milling
- ☐ Soybean and other oilseed processing
- ☐ Fats and oils refining and blending
- ☐ Breakfast cereal manufacturing

Sugar and Confectionery Product Manufacturing:

- ☐ Beet sugar manufacturing
- ☐ Cane sugar manufacturing
- ☐ Nonchocolate confectionery manufacturing
- ☐ Chocolate and confectionery manufacturing from cacao beans
- ☐ Confectionery manufacturing from purchased chocolate

Fruit and Vegetable Preserving and Specialty Food Manufacturing:

- ☐ Frozen fruit, juice and vegetable manufacturing
- ☐ Frozen specialty food manufacturing
- ☐ Fruit and vegetable canning
- ☐ Specialty canning
- ☐ Dried and dehydrated food manufacturing

Dairy Product Manufacturing:

- ☐ Fluid milk manufacturing
- ☐ Creamery butter manufacturing
- ☐ Cheese manufacturing
- ☐ Dry, condensed and evaporated dairy product manufacturing
- ☐ Ice cream and frozen dessert manufacturing

Animal Slaughtering and Processing:

- ☐ Animal (except poultry) slaughtering
- ☐ Meat processed from carcasses
- ☐ Rendering and meat by-product processing
- ☐ Poultry processing

Seafood Product Preparation and Packaging:

- ☐ Saltwater seafood
- ☐ Freshwater seafood

Bakeries and Tortilla Manufacturing:

- ☐ Retail bakeries
- ☐ Commercial bakeries
- ☐ Frozen cakes, pies and other pastries manufacturing
- ☐ Cookie and cracker manufacturing
- ☐ Dry pasta, dough and flour mixes manufacturing from purchased flour
- ☐ Tortilla manufacturing

Other Food Manufacturing:

- ☐ Roasted nuts and peanut butter manufacturing
- ☐ Other snack food manufacturing
- ☐ Coffee and tea manufacturing
- ☐ Flavouring syrup and concentrate manufacturing
- ☐ Mayonnaise, dressing and other prepared sauce manufacturing

- ☐ Spice and extract manufacturing
- ☐ Perishable prepared food manufacturing
- ☐ All other miscellaneous food manufacturing

Beverage Product Manufacturing:

- ☐ Soft drink manufacturing
- ☐ Bottled water manufacturing
- ☐ Ice manufacturing
- ☐ Brewery
- ☐ Winery
- ☐ Distillery

Other, please specify:

9. **[All]** How many employees (including permanent, seasonal and casual but excluding the owner and contract employees) did your organization employ during its fiscal year ending in 2017?

*Please select one only.*

- ☐ 0
- ☐ 1-5
- ☐ 6-10
- ☐ 11-25
- ☐ 26-50
- ☐ 51-100
- ☐ 101-150
- ☐ 151 or more

10. **[All]** What were your organization's annual total sales from processing/agricultural production for the fiscal year ending in 2017? *Please select one only.*

- ☐ \$0 to \$99,999
- ☐ \$100,000 to \$249,999
- ☐ \$250,000 to \$499,999
- ☐ \$500,000 to \$999,999
- ☐ \$1,000,000 to \$4,999,999
- ☐ \$5,000,000 to \$9,999,999
- ☐ \$10,000,000 to \$14,999,999
- ☐ \$15,000,000 or more

11. **[All]** Which are the main distribution channels used by your organization to sell its products?

*Please select all that apply.*

- ☐ Directly selling to consumers
- ☐ Selling to retailers
- ☐ Selling to food service organizations (e.g., restaurants, school and hospital cafeterias, catering operations)
- ☐ Selling to wholesalers or distributors
- ☐ Other, please specify: \_\_\_\_\_

## COMPETITIVE ENVIRONMENT AND GROWTH STRATEGIES

The following questions are regarding your organization's competitive environment and growth strategies.

12. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Please rate how each of the following factors constrained your organization's ability to grow and/or compete over the last three years. Please select all that apply.

	Scale				
	1 - Low	2 - Moderate	3 - High	Don't know	Not applicable
a. Capital or financing limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Processing equipment or facility/infrastructure limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Technical expertise (e.g., research, business, operations, marketing) limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Advanced technology (e.g., innovative or novel) inaccessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Skilled and/or unskilled labour limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Distribution channel limitations or inaccessibility to markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Regulatory requirement limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, _____ please specify:					

13. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Please rate how important each of the following business/operational strategies are to the growth of your organization. Please select all that apply.

	Scale					
	1 - Not at all important	2 - Of little importance	3 - Moderately important	4 - Important	5 - Very important	on't now
a. Business operation or expansion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Scale					
	1 - Not at all important	2 - Of little importance	3 - Moderately important	4 - Important	5 - Very important	on't know
b. Product improvement (e.g., packaging, shelf-life, taste, sustainability)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Process or operation improvement (e.g., increased efficiency)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Product line expansion (e.g., manufacturing additional products within the same product category)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. New product development (e.g., a new product in a different product category)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Market reach or expansion (e.g., identify target market, reach a new market)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Skills training for personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____						

## CURRENT USE OF INNOVATION OR PROCESSING-RELATED RESOURCES AND SERVICES

The next set of questions are regarding your organization's past use or current use of external innovation or processing-related resources and services.

14. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Please rate how important each of the following resources and services were in helping your organization grow/scale up? If your organization did not utilize the following resources or services, please click on "Not applicable."

	Scale						
	1 - Not at all important	2 - Of little importance	3 - Moderately important	4 - Important	5 - Very important	Don't know	Not applicable
a. Research and development (R&D) services or facilities (e.g., laboratory or test kitchen facilities, concept analysis, prototype design, sensory evaluation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Leased, rented or shared processing facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Leased, rented or shared equipment and/or technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Food handling and/or storage services (e.g., dry or cold handling, freezer storage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Product or production consultation services (e.g., technical assistance from food scientists and/or engineers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Scale						
	1 - Not at all important	2 - Of little importance	3 - Moderately important	4 - Important	5 - Very important	Don't know	Not applicable
f. Business development services (e.g., business planning, marketing planning, feasibility assessments, licensing and regulatory compliance advisory services, business accelerator or mentorship programs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Training and education (e.g., processing, technology or food/health and safety education)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Government support programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Investment/financial planning services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Industry association services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____							

a. **[If provided a rating of 3 or higher for “R&D services or facilities”]** Which of the following specific **R&D services, laboratories or equipment** have been commissioned by your organization? *Please select all that apply.*

- ☐ R&D laboratory services, laboratory equipment, or a test facility for product development
- ☐ Concept analysis and development
- ☐ Prototype design and demonstrations
- ☐ Sensory evaluation and clinical studies
- ☐ Regulatory requirements and labelling assistance
- ☐ Product packaging evaluation
- ☐ Quality control/assurance specifications
- ☐ Other, please specify: \_\_\_\_\_

- b. **[If provided a rating of 3 or higher for “leased, rented or shared processing facilities”]** Which of the following specific processing facilities have been leased, rented, and/or shared by your organization?

*Please select all that apply.*

- ☐ Processing facility for the production of market-ready products
- ☐ Processing facility that is shared-use/a commissary kitchen for the production of market-ready products
- ☐ Processing facility for the production of products for test market purposes
- ☐ Processing facility for the production of products while your organization’s facilities were being upgraded or constructed
- ☐ Other, please specify: \_\_\_\_\_

- c. **[If provided a rating of 3 or higher for “leased, rented or shared equipment and/or technology”]** Which of the following specific types of equipment and technology have been leased, rented, and/or shared by your organization?

*Please select all that apply.*

- ☐ Dry processing equipment (e.g., dehydration equipment, blenders, milling equipment, drying/cooling equipment)
- ☐ Wet processing equipment or storage (e.g., kettles, pasteurizers, mixers, cryogenic freezers, processing vats)
- ☐ Meat processing equipment (e.g., forming equipment, band saws, tenderizers, presses, grinders)
- ☐ Benchtop processing equipment (e.g., noodle/pasta machine, grills/fryers, mixers, bowl cutters)
- ☐ Batter and breadmaking equipment or storage (e.g., breadmaking applicators, batter applicators, ovens, freezers)
- ☐ Baking equipment (e.g., convection ovens, rotating rack ovens, dough preparation machines, mixers, sheeters)
- ☐ Seasoning equipment (e.g., seasoning equipment, spray and coating equipment, tumblers)
- ☐ Packaging equipment (e.g., vacuum packagers, sealers, lidders, wrappers)
- ☐ Laboratory equipment (e.g., microscopes, centrifuges, digestion/distillation systems, moisture analyzers)
- ☐ Novel equipment (e.g., agitation thermal processing equipment, high pressure homogenizer, 3-D printer)
- ☐ Other, please specify: \_\_\_\_\_

- d. **[If provided a rating of 3 or higher for “business development services”]** Which of the following types of business development services have been commissioned by your organization?

*Please select all that apply.*

- ☐ Feasibility assessment
- ☐ Market research and analysis
- ☐ Business and strategic planning.
- ☐ Brand development
- ☐ Marketing planning
- ☐ Licensing and regulatory compliance advisory services

- ☐ Business accelerator program
- ☐ Business mentorship program
- ☐ Other, please specify: \_\_\_\_\_

## INNOVATION AND PROCESSING-RELATED RESOURCES AND SERVICES NEEDS

The next set of questions are meant to gather your organization's input on innovation and processing-related resources and services that would be most beneficial to your organization and could be offered at the Core Innovation Centre and/or Food Hub Nodes.

15. **[If agriculture/seafood producer interested in exploring processing/value-added activities or other]** Please rate the following resources and services based on your organization's level of interest in accessing them at the Core Innovation Centre and/or Food Hub Nodes to support your processing/value-added activities in the future. Please select all that apply.

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
a. Research and development (R&D) services or facilities (e.g., laboratory or test kitchen facilities, concept analysis, prototype design, sensory evaluation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Leased, rented or shared processing facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Leased, rented or shared equipment and/or technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Food handling and/or storage services (e.g., dry or cold handling, freezer storage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Product or production consultation services (e.g., technical assistance from food scientists and/or engineers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
f. Business development services (e.g., business planning, marketing planning, feasibility assessments, licensing and regulatory compliance advisory services, business accelerator or mentorship programs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Training and education related to processing, technology or food/health and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Shared retail/market space for multiple business to sell directly to consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____						

16. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Please rate the following resources and services based on your organization's level of interest in accessing them at the Core Innovation Centre and/or Food Hub Nodes. *Please select all that apply.*

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
a. R&D services or facilities (e.g., laboratory or test kitchen facilities, concept analysis, prototype design, sensory evaluation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Leased, rented or shared processing facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Leased, rented or shared equipment and/or technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
d. Food handling and/or storage services (e.g., dry or cold handling, freezer storage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Product or production consultation services (e.g., technical assistance from food scientists and/or engineers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Business development services (e.g., business planning, marketing planning, feasibility assessments, licensing and regulatory compliance advisory services, business accelerator or mentorship programs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Training and education related to processing, technology or food/health and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Shared retail/market space for multiple business to sell directly to consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____						

17. **[If provided a rating of 3 or higher for “R&D services and assistance”]** Please rate the following types of **R&D services or facilities** based on your organization’s level of interest in accessing them at the Core Innovation Centre and/or Food Hub Nodes.

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
a. R&D laboratory services, laboratory equipment, or a test facility for product development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
b. Concept analysis and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prototype design and demonstrations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Sensory evaluation and clinical studies (e.g., the analysis and measuring of human responses to the composition of food and beverages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Regulatory requirement and labelling assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Product packaging evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Quality control/assurance specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____						

18. **[If provided a rating of 3 or higher for “rental/shared processing facilities”]** Please rate the following types of processing facilities based on your organization’s level of interest in accessing them at the Core Innovation Centre and/or Food Hub Nodes.

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	on't now
a. Processing facility for the production of market-ready products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Processing facility that is shared-use/a commissary kitchen for the production of market-ready products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Processing facility for the production of products for test market purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Scale					
	1 - Not at all interested	2 - Of little interest	3 - Moderately interested	4 - Interested	5 - Very interested	Don't know
d. Processing facility for the production of products while your organization's facilities were being upgraded or constructed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____						

19. **[If 3 or higher for any type of processing facility]** Would your organization require the facility (or an area of the facility) to be allergen-free?

- ☐ Yes  
☐ No

a. **[If Yes]** What specific types of allergens would you require the facility (or an area of the facility) to be free of? *Please select all that apply.*

- ☐ Eggs  
☐ Milk  
☐ Gluten  
☐ Wheat and triticale  
☐ Peanuts  
☐ Tree nuts  
☐ Sesame  
☐ Mustard  
☐ Soy  
☐ Sulphites  
☐ Shellfish (crustaceans and molluscs)  
☐ Other, please specify: \_\_\_\_\_

20. **[If provided a rating of 3 or higher for "rental/shared equipment and technology"]** What specific types of equipment and technology would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Dry processing equipment (e.g., dehydration equipment, blenders, milling equipment, drying/cooling equipment)  
☐ Wet processing equipment (e.g., kettles, pasteurizers, mixers, cryogenic freezers, processing vats)  
☐ Meat processing equipment (e.g., forming equipment, band saws, tenderizers, presses, grinders)

- ☐ Benchtop processing equipment (e.g., noodle/pasta machine, grills/fryers, mixers, bowl cutters)
- ☐ Batter and breading equipment or storage (e.g., breading applicators, batter applicators, ovens, freezers)
- ☐ Baking equipment (e.g., convection ovens, rotating rack ovens, dough preparation machines, mixers, sheeters)
- ☐ Seasoning equipment (e.g., seasoning equipment, spray and coating equipment, tumblers)
- ☐ Packaging equipment (e.g., vacuum packagers, sealers, lidders, wrappers)
- ☐ Laboratory equipment (e.g., microscopes, centrifuges, digestion/distillation systems, moisture analyzers)
- ☐ Novel equipment (e.g., agitation thermal processing equipment, high pressure homogenizer, 3-D printer)
- ☐ Other, please specify: \_\_\_\_\_

a. **[If option selected “dry processing”]** What specific types of dry processing equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Hoppers
- ☐ Blenders
- ☐ Dehydration equipment
- ☐ Rehydration equipment
- ☐ Drying/Cooling equipment
- ☐ Milling equipment
- ☐ Other, please specify: \_\_\_\_\_

b. **[If option selected “wet processing equipment”]** What specific types of wet processing equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Kettles
- ☐ Pasteurizers
- ☐ Mixers
- ☐ Cryogenic freezers
- ☐ Processing vats
- ☐ Other, please specify: \_\_\_\_\_

c. **[If option selected “meat processing equipment”]** What specific types of meat processing equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Meat forming equipment
- ☐ Band saws
- ☐ Tenderizers
- ☐ Mixers/Mincers
- ☐ Meat presses
- ☐ Grinders
- ☐ Stuffers

- ☐ Slicers/Dicers
- ☐ Other, please specify: \_\_\_\_\_

d. **[If option selected “benchtop processing equipment”]** What specific types of benchtop processing equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Blenders
- ☐ Food Processors
- ☐ Noodle/Pasta Machine
- ☐ Grills/Fryers
- ☐ Tumblers
- ☐ Tube Broilers
- ☐ Hand Stuffers
- ☐ Mixers
- ☐ Bowl Cutters
- ☐ Other, please specify: \_\_\_\_\_

e. **[If option selected “batter and breading equipment”]** What specific types of batter and breading equipment or storage would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Ovens
- ☐ Breading applicators
- ☐ Batter applicators
- ☐ Freezers
- ☐ Electric fryers
- ☐ Other, please specify: \_\_\_\_\_

f. **[If option selected “baking equipment”]** What specific types of baking equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Commercial convection ovens
- ☐ Commercial deck ovens
- ☐ Rotating rack ovens
- ☐ Dough preparation machines
- ☐ Mixers
- ☐ Sheetters
- ☐ Other, please specify: \_\_\_\_\_

g. **[If option selected “seasoning equipment”]** What specific types of seasoning equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ In-kitchen seasoning and salting equipment (i.e., equipment for seasoning food prior to packaging)
- ☐ Spray dynamics flavoring and coating equipment (i.e., equipment for applying seasonings, coatings, frostings and other toppings to food)
- ☐ On-machine seasoning equipment
- ☐ Seasoning tumblers

☐ Other, please specify: \_\_\_\_\_

h. **[If option selected “packaging equipment”]** What specific types of packaging equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Vacuum Packagers
- ☐ Sealers
- ☐ Lidders
- ☐ Labellers
- ☐ Wrappers
- ☐ Scales
- ☐ Other, please specify: \_\_\_\_\_

i. **[If option selected “laboratory equipment”]** What specific types of laboratory equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Microscopes
- ☐ Centrifuges
- ☐ Calibrators
- ☐ Digestion/Distillation systems
- ☐ Moisture analyzers
- ☐ Incubators
- ☐ Other, please specify: \_\_\_\_\_

j. **[If option selected “novel equipment”]** What specific types of novel equipment would your organization be most interested in accessing at the Core Innovation Centre and/or Food Hub Nodes? *Please select all that apply.*

- ☐ Agitation thermal processing equipment (for canning of food products with processing times reduced by 50% due to gentle agitations in rotary or reciprocating modes) that produces high-nutrient shelf-stable canned food products
- ☐ High pressure processing equipment (for non-thermal pasteurization of food and beverages) that extends shelf-life of products while retaining the nutrition
- ☐ Pulsed electric field equipment (for non-thermal pasteurization and tenderization of food and beverages) that makes the products more porous for easier processing
- ☐ Microwave-vacuum (REV) dehydration equipment (for low temperature dehydration of fruits, vegetables and other food products) that intensifies colour, flavour and taste of products
- ☐ Pulsed UV light equipment (for sanitization of food and beverages, food-contact surfaces, utensils and processing areas/rooms)
- ☐ Extrusion processing equipment (for production of extruded snacks and cereals)
- ☐ Super-critical, fluid extraction equipment (for extraction of valuable bioactives and other components from food products without using toxic solvents)
- ☐ High pressure homogenizer (for high-intensity homogenization, size-reduction and encapsulation of food and beverages)
- ☐ Modified and controlled atmospheric packaging and bottling setups
- ☐ 3-D printing technology for food products
- ☐ Other, please specify: \_\_\_\_\_

- k. **[If option “novel equipment” was not selected]** We noticed you did not select novel equipment on the previous page as a type of technology or equipment your organization would be interested in accessing at the Core Innovation Centre and/or Food Hub Nodes; however, would your organization be interested in accessing any of the following types of novel equipment? Please select all that apply.

- ☐ Agitation thermal processing equipment (for canning of food products with processing times reduced by 50% due to gentle agitations in rotary or reciprocating modes that produces high nutrient quality canned shelf-stable food products)
- ☐ High pressure processing equipment (for non-thermal pasteurization of food and beverages that extends shelf-life of products while retaining the nutrition)
- ☐ Pulsed electric field equipment (for non-thermal pasteurization and tenderization of foods and beverages that makes the products more porous for easier processing)
- ☐ Microwave-vacuum (REV) dehydration equipment (for low temperature dehydration of fruits, vegetables and other food products that intensified colour, flavor and taste inside the products)
- ☐ Pulsed UV light equipment (for sanitization of food and beverages, food-contact surfaces, utensils and processing areas/rooms)
- ☐ Extrusion processing equipment (for production of extruded snacks and cereals)
- ☐ Super-critical fluid extraction equipment (for extraction of valuable bioactives and other components from food products without using toxic solvents)
- ☐ High pressure homogenizer (for high-intensity homogenization, size-reduction and encapsulation of food and beverages)
- ☐ Modified and controlled atmospheric packaging and bottling set-ups
- ☐ 3-D printing technology for food products
- ☐ No, my organization would not be interested
- ☐ Other, please specify: \_\_\_\_\_

21. **[If food processor or agriculture/seafood producer involved/interested in processing/value-added activities or both agriculture/seafood producer and processor]** If the Core Innovation Centre and/or Food Hub Nodes were to offer resources and services of interest, what is the likelihood that your organization would be willing to pay for these resources and/or services at the Core Innovation Centre and/or Food Hub Nodes?

	1 – Not at all likely	2 – Slightly likely	3 – Moderately likely	4 – Likely	5 – Very likely	Don't know
Likelihood of paying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a. **[If provided a rating of 3 or higher for “likelihood of paying”]** Considering the following pricing models, how would your organization prefer to pay for the resources and/or services at the Core Innovation Centre and/or Food Hub Nodes?

- ☐ Cost per use
- ☐ Subscription based
- ☐ Don't know
- ☐ Other, please specify: \_\_\_\_\_

22. **[If food processor or agriculture/seafood producer involved/interested in processing/value-added activities or both agriculture/seafood producer and processor]** If the Core Innovation



Centre and/or Food Hub Nodes were to offer resources and services of interest to your organization, how often would your organization use the resources and services at the Core Innovation Centre and/or Food Hub Nodes?

- ☐ Never
- ☐ One-off use
- ☐ Once a week
- ☐ Once a month
- ☐ Once every quarter
- ☐ Once every year
- ☐ Don't know
- ☐ Other, please specify: \_\_\_\_\_

23. **[If food processor or agriculture/seafood producer involved in/interested in being involved in processing/value-added activities or both agriculture/seafood producer and processor]** Are there any other resources and/or services that the Core Innovation Centre and/or Food Hub Nodes could offer to support your organization's needs?

- ☐ Yes
- ☐ No

a. **[If yes]** What else would you like to see the Core Innovation Centre and/or Food Hub Nodes offer/focus on in terms of resources and services?

## INNOVATION ACTIVITIES AND OBSTACLES

The following questions are regarding your organization's innovation-related activities and obstacles in innovating.

For the purpose of this survey:

**Product innovations** are both goods and services introduced by your firm whose fundamental characteristics or intended uses are **new or differ significantly** from other products or services produced by your industry in British Columbia.

- Product innovations may be introduced by developing brand new products, by **significantly** modifying existing products or by purchasing the right to produce/copying products that are not currently available for sale in British Columbia, but can be found elsewhere in Canada and other countries.

**Process innovations** include production techniques, production processes, systems monitoring, and biotechnology processes introduced by your firm that are **new to your industry** in British Columbia.

- Process innovations may be introduced by developing brand new equipment, techniques and processes, by **significantly** modifying existing equipment, techniques and processes or by purchasing the right to use/copy equipment, techniques and processes that are not currently used in your industry in British Columbia.

24. **[If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor]** Has your organization introduced any product and/or process innovations?

Please note:

- Changes to your organization's existing products which only involve minor modifications and/or product differentiation should not be included, i.e., introduction of a common flavour (e.g., chocolate), or ingredients (e.g., nuts), or aesthetic packaging changes (e.g., size or shape) do not qualify as product innovation.
- Purchases of equipment readily available in the market or that are already being used by other firms in your industry in British Columbia and minor modifications to existing equipment and processes that do not significantly enhance performance should not be included.

- ☐ Yes  
☐ No

- a. **[If yes]** How were your product and/or process innovations developed? Please select all that apply.

- ☐ Collaborating with organizations up or down the supply chain
- ☐ Collaborating with packaging or equipment suppliers
- ☐ Licensing or copying products offered outside of British Columbia
- ☐ Licensing or copying equipment, technologies, or systems used by your industry outside of British Columbia
- ☐ Licensing or copying equipment, technologies or systems used by other industries but not in your own industry
- ☐ Using laboratory-based R&D within your organization
- ☐ Using laboratory-based R&D contracted out to other organizations
- ☐ Using prototyping, scale-up or engineering services within your organization
- ☐ Using prototyping, scale-up or engineering services contracted out to other organizations
- ☐ Other, please specify: \_\_\_\_\_

- b. **[If yes]** What were the main objectives of your organization's product innovations or process innovations? Please select all that apply.

**Product Innovations:**

- ☐ Replace products that were being phased out
- ☐ Add new products to your existing product lines
- ☐ Add new products to a new product category
- ☐ Product differentiation or creation of a superior brand
- ☐ Access new domestic markets
- ☐ Access new foreign markets
- ☐ Increase market share
- ☐ Reduce negative environmental impacts (e.g., choice of packaging)
- ☐ Meet or exceed buyer's standards or requirements
- ☐ React to market forces and conditions
- ☐ React to regulatory requirements
- ☐ Other, please specify: \_\_\_\_\_

**Process Innovations:**

- ☐ Improve production capacity
- ☐ Improve production efficiency
- ☐ Allow for the production of a new product
- ☐ Improve ability to comply with buyers' standards or requirements
- ☐ Improve product safety, quality or consistency
- ☐ Improve ability to comply with environmental standards or regulations
- ☐ Offset labour costs or shortages
- ☐ Other, please specify: \_\_\_\_\_

25. [If food processor or agriculture/seafood producer involved in processing/value-added activities or both agriculture/seafood producer and processor] Please rate the impact of the following factors in limiting your organization's ability to introduce product or process innovations.

	Scale				
	1 - Low	2 - Moderate	3 - High	Don't Know	Not applicable
<b>Financial Factors</b>					
a. Lack of internal cash flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Lack of external equity funding (including venture capital)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Lack of debt financing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Internal Factors</b>					
d. Length of time required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Corporate or management resistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Lack of R&D or marketing capabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Lack of idea champions					
<b>Other Factors</b>					
h. Skilled labour shortage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Regulatory barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Difficulty negotiating intellectual property (IP) rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Lack of retail acceptance or access to distribution channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____					

## FINAL COMMENTS AND QUESTIONS

26. **[If food processor or agriculture/seafood producer involved in/interested in being involved in processing/value-added activities or both agriculture/seafood producer and processor]** What other factors should be considered to ensure that the development and implementation of the Core Innovation Centre and Food Hub Nodes is successful?

27. **[All]** If you have any comments regarding how the BC Ministry of Agriculture and industry associations could better support your organization, please feel free to share them with us.

28. **[All]** Is your organization a member of an industry association, council, board or commission?

- ☐ Yes  
☐ No

- a. **[If yes]** Please identify all industry associations, councils, boards, or commissions that your organization belongs to:

29. **[All]** If we have any further questions, may we contact you?

- ☐ Yes  
☐ No

- a. **[If yes]** Please kindly provide your name and contact information below. *Please include your name, position, organization and telephone or email address.*

**Thank you very much for your participation and feedback.**

Please click “Submit” below to complete your survey.

**Submit**

# Appendix B – Additional Survey Findings

## Memberships

The list below includes all the industry associations, councils, boards or commissions that were noted by survey respondents.

- BCFPA
- SSFPA
- BC Food Protection Association
- COTA
- CPMA
- Comox Valley Farmers Institute
- Mid Island Farmers Institute
- COG
- International Sprout Growers Association
- Farmers Market Association (Comox Valley)
- Vancouver Island Organic Collective Society
- CFEA
- CHFA
- COABC
- BC Vegetable Marketing Commission
- Institute of Food Technologists
- Kersley Farmers Institute
- McLeese Lake Farmers Market
- CARA (Cariboo Agriculture Research Alliance)
- Island Organic Producers Association
- Burnaby Board of Trade
- BC Farmers Market Association
- NOOA
- PODF
- POGI
- SKOrganic
- OrganicAB
- OVCRT
- Fraser Valley Direct Farm Marketing Association
- B.C. Honey Producers Association
- Canadian Honey Council
- B.C. Fruit Winery Association
- Turkey marketing boards
- CPEPC
- Chicken marketing board
- CFIB
- BCAFM
- BCPPA
- BCBC
- BC Association of Farmers Markets
- Aldergrove Business Association
- Fort Langley Community Association
- Fort Langley Community Improvement Association
- Western Dairy Council
- Food-X
- Smart Kitchen Summit
- FoodBytes
- CTA
- Food Industry Asia
- Cyberport
- Global Sources Startup Launchpad
- Kamloops Chamber of Commerce
- SSFEA
- Shuswap Food Action Coop
- Salmon Arm Agricultural Advisory Committee
- Salmon Arm Chamber of Commerce
- VIGBC
- PBFA
- FED
- Food Processors of Canada
- Canadian Commercial Waterfowl Producers Assoc.
- BC Assoc of Abattoirs
- Delta Chamber of Commerce
- FEX Family Enterprise Exchange
- SPEC
- Shuswap Food Action Coop.
- Salmon Arm Chamber of Commerce.
- Canadian Aquaculture Industry Alliance
- BC Dairy Council
- Western Milk Pool
- Dairy Processors Association of Canada
- BCFT
- IFT
- CIFST
- CDC
- DPAC
- North Okanagan Organic Association
- Co-operative Housing Federation of BC
- Armstrong co-operative

- Plant Based Foods Association
- Small-Scale Meat Producers Association
- Business Alliance for Artisan Fermenters and Distillers
- BC Farm Crafted Cider Association
- Northwest Cider Association
- USACM
- CINA
- NWCA
- Bottleneck Drive Winery Association
- IOPA Islands Organic Producers Association
- PIJAC
- Seafood Producers of BC
- Fisheries Council of Canada
- BC Seafood Alliance
- Pacific Salmon Commission panels
- Halibut Association of North America
- BC Blueberry Council
- Canadian Groundfish Research and Conservation Society
- Deep Sea Trawlers Association
- BC Salmon Marketing Council
- Canadian Pacific Sustainable Fisheries Society
- BCVMC
- Lower mainland sheep association
- BC Small Meat Producers Association
- Farmer's Institute
- BC Sheep Federation

## Research and Development (R&D) Services and Facilities Needs

Table 5 displays the percentage of survey respondents from each region that rated their interest each service and/or facility as moderately interested to very interested.

**Table 5: R&D Services and Facilities Needs by Region**

R&D Services and Facilities	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Regulatory requirement and labelling assistance	95%	91%	90%	86%	92%
Quality control/assurance specifications	94%	83%	86%	91%	90%
"R&D laboratory services, laboratory equipment, or a test facility for product development"	88%	91%	81%	91%	88%
Product packaging evaluation	90%	78%	76%	73%	83%
Concept analysis and development	86%	74%	81%	64%	79%
Sensory evaluation and clinical studies	78%	78%	71%	55%	73%
Prototype design and demonstrations	76%	57%	71%	55%	68%
Other	1%	4%	5%	0%	2%
Other	95%	91%	90%	86%	92%

*Note: Degree of constraint was measured on a 3-point scale ranging from "Low" (1), to "Moderate" (2) to "High" (3). Percentage refers to survey respondents that rated 2 to 3.*

## Processing Facility Needs

Table 6 displays the percentage of survey respondents from each region that rated their interest each processing facility as moderately interested to very interested.

**Table 6: Processing Facility Needs by Region**

Processing Facilities	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Processing facility for the production of market-ready products	91%	75%	88%	90%	88%
Processing facility that is shared-use/ a commissary kitchen for the production of market-ready products	74%	80%	76%	81%	77%
Processing facility for the production of products for test market purposes	81%	65%	82%	71%	77%
Processing facility for the production of products while your organization's facilities were being upgraded or constructed	67%	50%	65%	52%	61%
Other	2%	5%	0%	0%	2%



Table 7 displays the percentage of survey respondents from each organization size that rated their interest each processing facility as moderately interested to very interested.

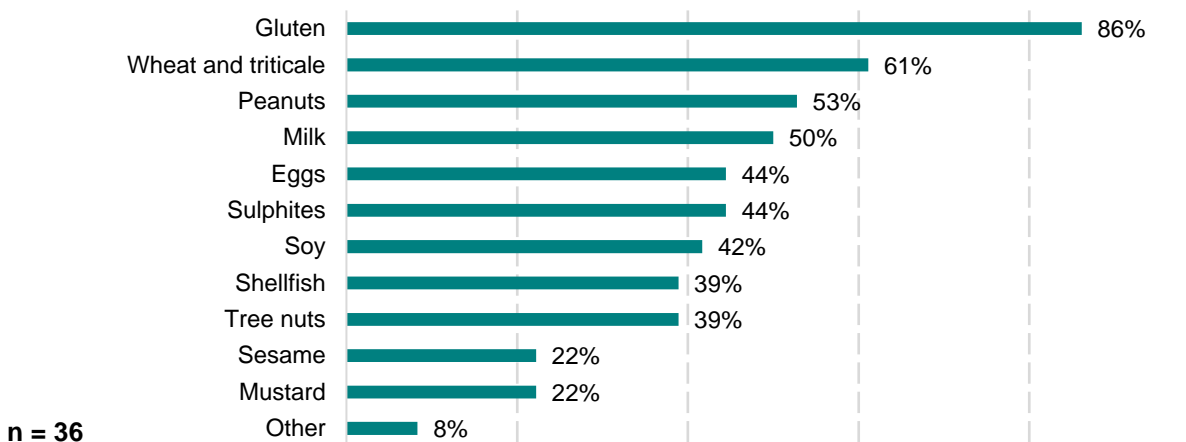
**Table 7: Processing Facility Needs by Organization Size**

Processing Facilities	Small	Medium	Large	All respondents
Processing facility for the production of market-ready products	91%	69%	88%	88%
Processing facility that is shared-use/ a commissary kitchen for the production of market-ready products	87%	38%	38%	77%
Processing facility for the production of products for test market purposes	77%	69%	88%	77%
Processing facility for the production of products while your organization's facilities were being upgraded or constructed	58%	75%	63%	61%
Other	1%	6%	0%	2%

## Allergens

Figure 27 displays the percentage of respondents that selected the given allergens that they cannot have in the leased, rented or shared processing facilities available through the Food Hub Network.

**Figure 27: Allergens<sup>37</sup>**



<sup>37</sup> Please note that survey respondents could select multiple options for this question, thus the percentages do not add up to 100%.

## Equipment Needs

Table 8 displays the percentage of survey respondents from each region that rated their interest each equipment type as moderately interested to very interested.

**Table 8: Equipment Needs by Region**

Equipment	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Packaging equipment	86%	86%	63%	92%	84%
Dry processing equipment	60%	71%	75%	67%	65%
Wet processing equipment	70%	62%	63%	46%	63%
Laboratory equipment	51%	33%	25%	17%	38%
Baking equipment	40%	38%	25%	38%	37%
Benchtop processing equipment	40%	29%	38%	29%	35%
Novel equipment	37%	5%	19%	13%	24%
Meat processing equipment	14%	14%	31%	42%	22%
Batter and breeding equipment or storage	25%	14%	13%	13%	19%
Seasoning equipment	17%	19%	6%	13%	15%
Other	13%	10%	13%	4%	10%

Table 9 displays the percentage of survey respondents from each organization size that rated their interest each equipment type as moderately interested to very interested.

**Table 9: Equipment Needs by Organization Size**

Equipment	Small	Medium	Large	All respondents
Packaging equipment	84%	87%	77%	84%
Dry processing equipment	71%	47%	38%	65%
Wet processing equipment	64%	40%	77%	63%
Laboratory equipment	35%	40%	54%	38%
Baking equipment	37%	40%	31%	37%
Benchtop processing equipment	35%	13%	54%	35%
Novel equipment	18%	20%	69%	24%
Meat processing equipment	20%	33%	15%	22%
Batter and breeding equipment or storage	17%	33%	15%	19%
Seasoning equipment	11%	20%	38%	15%
Other	10%	13%	15%	10%

Table 10 displays the percentage of respondents that were interested in accessing specific types of equipment through the Food Hub Network.

**Table 10: Interest in Specific Types of Equipment**

<b>Dry Processing Equipment (n=80)</b>	
Dehydration equipment	70%
Drying/Cooling equipment	55%
Blenders	49%
Milling equipment	35%
Hoppers	28%
Rehydration equipment	11%
Other	9%
<b>Wet Processing Equipment (n=73)</b>	
Kettles	62%
Mixers	59%
Processing vats	49%
Pasteurizers	48%
Cryogenic freezers	29%
Other	7%
<b>Meat Processing Equipment (n=26)</b>	
Stuffers	81%
Slicers/Dicers	77%
Grinders	73%
Mixers/Mincers	65%
Meat forming equipment	58%
Band saws	42%
Meat presses	35%
Tenderizers	15%
Other	23%
<b>Benchtop Processing Equipment (n=43)</b>	
Food Processors	88%
Blenders	79%
Mixers	72%
Grills/Fryers	35%
Noodle/Pasta Machine	30%
Bowl Cutters	26%
Tumblers	19%
Hand Stuffers	19%
Tube Broilers	9%
Other	5%
<b>Batter and Breeding Equipment (n=24)</b>	
Ovens	88%
Freezers	67%
Breading applicators	50%
Batter applicators	42%
Electric fryers	38%
Other	4%
<b>Baking Equipment (n=46)</b>	
Commercial convection ovens	78%

Mixers	59%
Dough preparation machines	46%
Commercial deck ovens	43%
Rotating rack ovens	37%
Sheeters	37%
Other	4%
<b>Seasoning Equipment (n=15)</b>	
Spray dynamics flavoring and coating equipment	73%
Seasoning tumblers	73%
On-machine seasoning equipment	47%
In-kitchen seasoning and salting equipment	33%
Other	0%
<b>Packaging Equipment (n=102)</b>	
Labellers	76%
Vacuum Packagers	68%
Sealers	65%
Scales	63%
Wrappers	51%
Lidders	31%
Other	12%
<b>Laboratory Equipment (n=40)</b>	
Moisture analyzers	70%
Incubators	48%
Microscopes	45%
Digestion/Distillation systems	43%
Centrifuges	33%
Calibrators	33%
Other	15%
<b>Novel Equipment (n=116)</b>	
High pressure processing equipment that extends shelf-life of products while retaining the nutrition	49%
Pulsed UV light equipment	38%
Agitation thermal processing equipment that produces high-nutrient shelf-stable canned food products	30%
Modified and controlled atmospheric packaging and bottling setups	28%
Microwave-vacuum (REV) dehydration equipment that intensifies colour, flavour and taste of products	24%
Extrusion processing equipment	24%
3-D printing technology for food products	24%
Super-critical, fluid extraction equipment	14%
Pulsed electric field equipment that makes the products more porous for easier processing	10%
High pressure homogenizer	14%
No, my organization would not be interested	17%
Other	7%

## Factors Constraining Organizations' Ability to Grow and Compete

Table 11 displays the percentage of survey respondents from each region that rated each factor as “moderate” or “high” in severity.

**Table 11: Factors Constraining Organizations' Ability to Grow and Compete by Region**

Constraints	South Coast	Vancouver Island/ Coast	Okanagan	Other	All respondents
Processing equipment or facility/ infrastructure limitations	74%	77%	88%	76%	77%
Capital or financing limitations	71%	77%	80%	71%	74%
Regulatory requirement limitations	68%	65%	56%	62%	65%
Skilled and/or unskilled labour limitations	69%	54%	52%	52%	62%
Technical expertise limitations	64%	58%	52%	67%	62%
Distribution channel limitations or inaccessibility to markets	61%	54%	52%	62%	59%
Advanced technology inaccessibility	49%	42%	44%	43%	46%
Other	6%	0%	4%	0%	3%

Note: Degree of constraint was measured on a 3-point scale ranging from “Low” (1), to “Moderate” (2) to “High” (3). Percentage refers to survey respondents that rated 2 to 3.

Table 12 displays the percentage of survey respondents from each organization size that rated each factor as “moderate” or “high” in severity.

**Table 12: Factors Constraining Organizations' Ability to Grow and Compete by Organization Size**

Constraints	Small	Medium	Large	All respondents
Processing equipment or facility/ infrastructure limitations	73%	74%	93%	77%
Capital or financing limitations	81%	81%	40%	74%
Regulatory requirement limitations	66%	67%	57%	65%
Skilled and/or unskilled labour limitations	50%	70%	100%	62%
Technical expertise limitations	58%	78%	60%	62%
Distribution channel limitations or inaccessibility to markets	61%	70%	43%	59%
Advanced technology inaccessibility	43%	52%	50%	46%
Other	4%	7%	0%	3%

Note: Degree of constraint was measured on a 3-point scale ranging from “Low” (1), to “Moderate” (2) to “High” (3). Percentage refers to survey respondents that rated 2 to 3.

## Use of Resources and Services

Table 13 includes the parentage of respondents that indicated to have leased, rented, shared and/or commissioned resources and services.

**Table 13: Use of Resources and Services**

<b>R&amp;D services, laboratories or equipment (n=70)</b>	
R&D laboratory services, laboratory equipment, or a test facility for product development	61%
Regulatory requirements and labelling assistance	59%
Quality control/assurance specifications	51%
Product packaging evaluation	37%
Concept analysis and development	33%
Prototype design and demonstrations	24%
Sensory evaluation and clinical studies	20%
Other	7%
<b>Processing Facilities (n=73)</b>	
Processing facility for the production of market-ready products	66%
Processing facility that is shared-use/a commissary kitchen for the production of market-ready products	55%
Processing facility for the production of products for test market purposes	21%
Processing facility for the production of products while your organization's facilities were being upgraded or constructed	4%
Other	10%
<b>Equipment (n=51)</b>	
Wet processing equipment or storage	49%
Dry processing equipment	43%
Packaging equipment	39%
Baking equipment	37%
Benchtop processing equipment	27%
Laboratory equipment	16%
Meat processing equipment	8%
Novel equipment	6%
Batter and breadmaking equipment or storage	4%
Seasoning equipment	0%
Other	16%
<b>Business Development Services (n=84)</b>	
Brand development	55%
Business and strategic planning	49%
Marketing planning	48%
Licensing and regulatory compliance advisory services	37%
Market research and analysis	37%
Business mentorship program	31%
Feasibility assessment	21%
Business accelerator program	14%
Other	5%

## Appendix C – About MNP

MNP is one of the leading chartered accountancy and business advisory firm in Canada. Founded in 1958, MNP has grown from a single office in Manitoba to more than 75 offices and 3,000 team members across Canada. MNP is a member of Praxity AISBL, a global alliance of independent firms, which enables us to access a broad range of sector specific expertise worldwide.

At MNP, our professionals are the driving force behind our success. They continue to demonstrate our culture and values which is integral to the way we conduct business, both internally and externally. As such, MNP is proud to be recognized as one of the *50 Best Employers in Canada* by *Maclean's* magazine.



### ABOUT MNP'S ECONOMICS AND RESEARCH PRACTICE

MNP's Economics and Research Practice consists of a team of dedicated members that have a successful track record of conducting industry studies, market research studies and economic impact engagements in wide range of industries including agriculture, health care, forestry, film and television. Our team consults on a range of economics related topics and has carried out assignments across Canada for businesses, industry associations and government.