

INVESTMENT READINESS SURVEY OF CANADIAN BIOPRODUCTS COMPANIES

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M|R|S|B

Investment Readiness of Canadian Bioproducts Companies

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The content of this report does not necessarily reflect the opinions or interests of the entire Industrial Bioproducts Value Chain Roundtable membership or AAFC, nor does it necessarily reflect the opinions or interests of all parties interviewed during the researching of this report.

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Investment Readiness of Canadian Bioproducts Companies

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EXECUTIVE SUMMARY

Information was gathered from Canadian bioproducts companies, support organizations and investors/suppliers of capital to assist the Investment Readiness Working Group of the Industrial Bioproducts Value Chain Roundtable to better understand the experience of attracting investment and accessing capital. Companies' needs in becoming investment ready were informed through an online survey completed by Canadian bioproducts companies and support organizations, follow up interviews with a sample of survey respondents representing a variety of company sizes, geographic distribution, stages of business life cycle and subsector, key informant interviews with investors/suppliers of capital and best practice interviews with international support organizations.

Ninety-two percent (92%) of responding companies indicated a need for investment capital with the largest percentage of respondents (33%) indicating that capital was required for commercializing research and development projects. Developing production or manufacturing capability was the next highest need identified, by 29% of responding companies.

Twenty-seven percent (27%) of the most recent attempts by Canadian bioproducts companies to access capital were not successful while a further 27% of respondents had an application for capital in process and did not know the result. Forty-five percent (45%) of respondents were successful in attracting capital.

The most common reason (44% of respondents) provided by lenders/investors to Canadian bioproducts companies for their request for capital being denied was that the lender/investor does not invest in the sector. The next most common reasons (equally noted by 33% of respondents) were due to inadequate cash flow and inadequate market readiness.

Companies, support organizations and suppliers of capital identified challenges specific to the sector and provided suggestions for how to address investor reluctance to investing in the bioproducts sector. Suggestions for dealing with challenges specific to the bioproducts sector – such as the longer life cycle to return on investment, having to accept higher risk, and the requirement for higher value investments (compared with competing investment opportunities) – can be grouped under four key areas:

- ***Provide special investment tools*** – ideas included: creating a dedicated sector fund; reducing risk through the provision of loan guarantees, tax credits or larger government grants; requiring Pension Funds to invest a percentage in the sector; developing flow-through shares which allow investors to write off losses; and, increasing funding to special funds directed toward venture capital firms to be invested in the sector.
- ***Provide reliable data*** – create more reliable biomass maps to reduce risk and information gaps
- ***Improve marketing and promotion of the sector*** – it was indicated that it is important to share the success stories of the sector and to provide opportunities for investors to hear these stories and learn other valuable information about the sector, e.g., at conferences, other bioproducts sessions. An example that could be replicated in Canada was the production of annual bioproducts indicators reports in the United States which help inform various stakeholders about trends in the sector.

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- **Improve overall presentation of investment proposals** – both support organizations and companies spoke to the need to have an overall improvement in the quality of investment proposals, ensuring return on investment and other benefits are clearly outlined.

Various barriers to accessing capital were identified by companies responding to the survey. Common comments included: the long and complex application processes for government funding and the need to speed up the decision process; gaps in funding for start-ups; and the need for increased expertise in support organizations and government with regard to the bioproducts sector. Support organizations attributed many barriers to the fact that industrial bioproducts is an emerging cluster, that significant time and money is required for companies to demonstrate the commercial potential of their technologies, the lack of companies' business expertise in dealing with investors or structuring deals, gaps in information, and challenges related to regulatory issues, logistics and planning. Suppliers of capital identified the top barriers as: lack of coordination among the various funding programs; too many small funds; lack of investor understanding of the sector and its products; and the time intensive and costly regulatory path that is often involved.

Various support organizations across the country provide resources and support mechanisms to companies in the bioproducts sector. Companies ranked *business support programs, introductions, networks, connections to potential investors, and facilitating a consortium of investors* as the most valuable resources. Follow-up interviews with support organizations identified the need to encourage more awareness of and access to these services and the ability to customize them depending on the need of the company.

Companies identified a variety of processes they used to become investor ready, many of which were used concurrently: accessing the resources of support organizations; accessing as many government funds available as possible; conducting good market research; having well prepared business plans; and engaging expertise whether through the hiring of staff with a specific expertise, utilizing mentors or contracting professionals.

Companies provided numerous suggestions of ways to address barriers in accessing capital/funding. Common responses included: specific funding programs should be provided to address the gap in funding when companies move from research and development to the commercialization phase; newer programs should be better coordinated and aligned with existing proven programs; and that government needs to take a more supportive proactive role by increasing funding support to companies in the sector, increasing expertise on the sector within government, establishing a procurement program that supports the use of bioproducts, providing other tools to encourage investment such as loan guarantees and tax credits, simplifying the application process and reducing the decision timeframe. Support organization suggestions for addressing barriers included: providing more access to infrastructure to reduce the investment requirement of individual companies; improving and simplifying processes for companies working with support organizations; developing useful data and informatics; and expanding financing options.

Building solid business plans, improving due diligence, supporting companies through development stages, increasing awareness and uptake of available programs and improving business development efforts were some of the suggestions provided by support organizations to increase investor readiness. Suppliers of capital similarly noted the importance of companies having a strong business plan, utilizing

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existing advisory resources, seeking opportunities to collaborate on or cost-share facilities with other companies, and indicated that tools and templates developed specifically for the sector could assist companies in improving their investment readiness.

The most common source of primary capital for companies in the bioproducts sector was an angel investor. Most of the companies were satisfied or very satisfied with the terms from the angel investor and 60% of companies had received their investment within 6 months. Chartered banks or venture capital firms were noted as the primary source of capital by only 4% of responding companies, and there was only limited use of these sources for non-primary capital. During follow-up interviews with companies and support organizations, interviewees were not surprised to see limited use of chartered banks and venture capital firms. Interviewees indicated that chartered banks are generally risk adverse, do not understand the sector timelines, have high security requirements, and tend to focus on well established, less complex sectors with well-established revenue history. Interviewees noted that venture capital firms tend to invest in companies where the return on investment timeline is shorter and that this sector is often outside of investors' scope of knowledge and comfort. Other identified factors contributing to the limited use of these sources of capital was a lack of venture capital firms in Canada as well as some bioproducts companies being unwilling to give up equity.

International best practice research conducted during this study revealed that the bioproducts sector in other countries experiences similar challenges to those identified by the Canadian companies, support organizations and investors/suppliers of capital who provided input through the online survey and follow-up interviews. International support organizations identified with the lack of investor knowledge and awareness of the sector as well as challenges – particularly for newer companies – due to the poor reputation and track record of past bioproducts companies. Lessons learned shared by these organizations included the importance of: having a focused responsibility at the Federal government level through a single department (as opposed to distributed across various ministries); a supportive policy environment; sharing information on the sector broadly on a regular basis; taking companies to investors; developing good news stories about the sector; and companies having a strong management team.

1 INTRODUCTION

Bioproducts support innovation within the agriculture sector, help address environmental issues and reduce Canada's overall greenhouse gas footprint. Bioproducts create clean jobs across the Canadian economy in research and development, agriculture, and value-added manufacturing. A shared vision between industry and government to enhance Canada's competitiveness and profitability resulted in the formation of value chain roundtables. The Industrial Bioproducts Value Chain Roundtable (IBVCRT) was established to:

- ❖ Support the development of the industrial bioproducts sector, including businesses and value chain partners in biomaterials, biofuels, bioenergy, and industrial biochemicals
- ❖ Explore the establishment of a consistent and recognized approach to setting biomass quality and addressing biomass supply issues
- ❖ Encourage information sharing and increase awareness of existing regional approaches to advance the sector that could be replicated
- ❖ Identify specific regulatory issues affecting the sector
- ❖ Continually update the Roundtable's Communications Plan, along with developing a complementary online communications tool to help those efforts

The strategic plan of the IBVCRT identified the following priorities:

1. Provide consistent quality and quantity of agriculture biomass
2. Realize a BioContent Canada program
3. Effectively promote the agriculture bioeconomy value proposition on the federal stage
4. Create a national voice and organizational capacity for the sector
- 5. Enhance resources for companies to become investment ready**
6. Encourage the development of regulations that move at the speed of business

The strategic plan also identified a number of activities related to achieving priority number five - "Enhance resources for companies to become investment ready". These activities included:

- ❖ Identify the needs of relevant Canadian companies striving to attract investment for the commercialization of agricultural industrial bioproducts,
- ❖ Determine what resources are currently available and being utilized to support these companies, and
- ❖ Identify the barriers to success in attracting capital and means of addressing those barriers.

The Investment Readiness Working Group (IRWG) engaged MRSB Consulting Services to gather information on the experience of Canadian bioproducts companies in attracting investment and accessing capital to better inform their understanding of companies' needs in order to become investor ready. The methodology used to gather this research is outlined in Appendix 1.

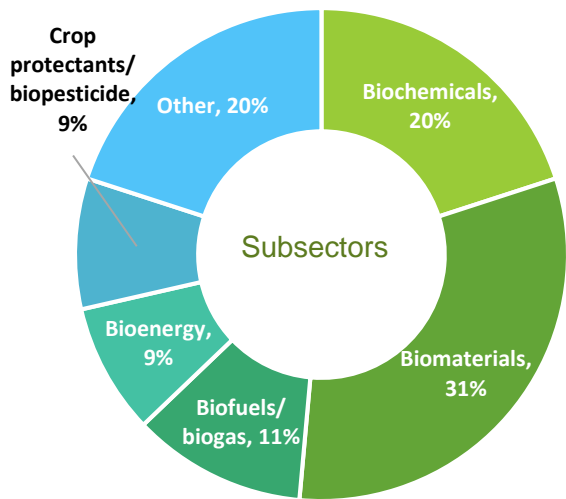
2 PROFILE OF RESPONDENTS

2.1 Canadian Bioproducts Companies

Forty-one bioproducts companies responded to the survey. After cleaning the responses, four responses were deemed not to contain sufficient information for analysis. The profile of the 37 valid responses follows.

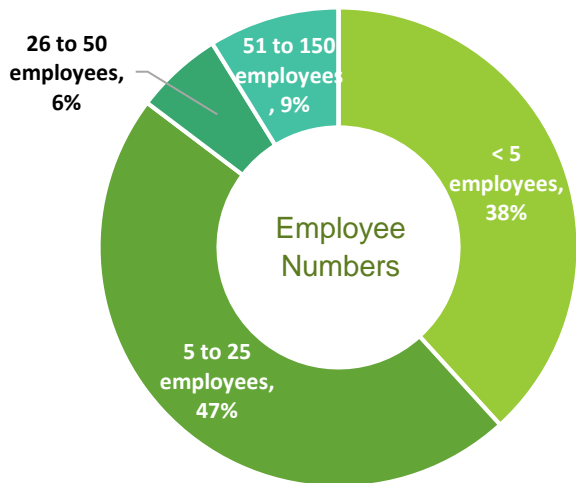
2.1.1 Subsector

Figure 1: Respondent Profile – Canadian Bioproducts Companies by Subsector



2.1.2 Number of employees

Figure 2: Respondent Profile – Canadian Bioproducts Companies by Number of FTE Employees



SUBSECTOR
DEFINITIONS

Biochemicals are chemicals produced from bio-based inputs to supplement or replace petroleum-based inputs.

Biomaterials are processed or engineered materials that are fully or partly derived from biomass.

Biofuels are fuels obtained by converting grains into liquid or gaseous fuels.

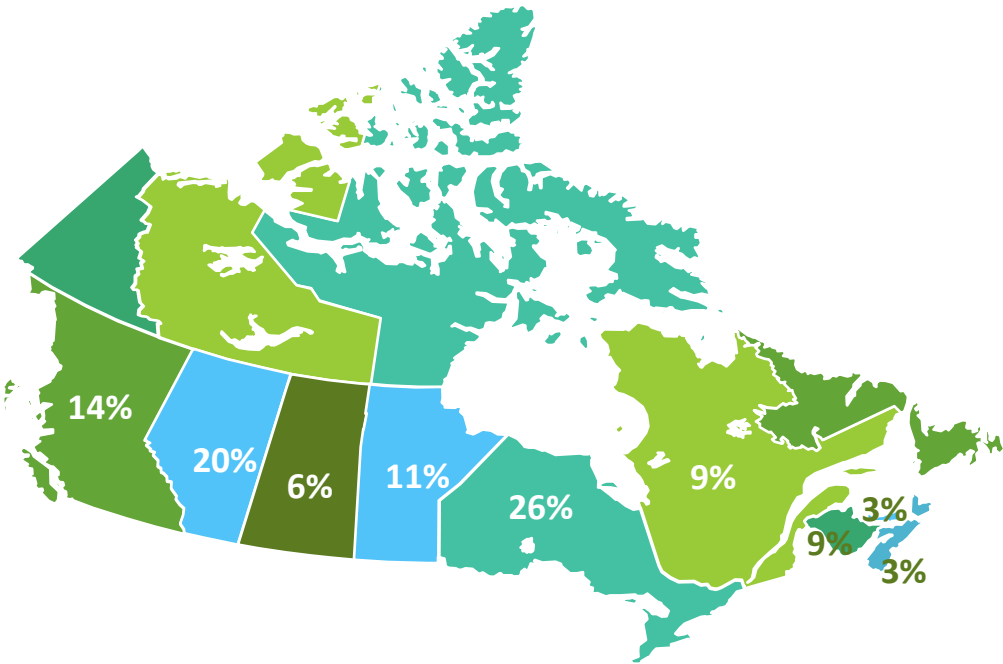
Bioenergy refers to the conversion of biomass into heat and power, replacing traditional methods such as petroleum, coal and nuclear fuels. Agri-food processing waste and livestock manure are the main inputs for biogas production.

Crop protection products/Biopesticides are certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain materials.

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2.1.3 Geographic location

Figure 3: Respondent Profile - Canadian Bioproducts Companies by Geographic Location



2.1.3.1 PROFILE

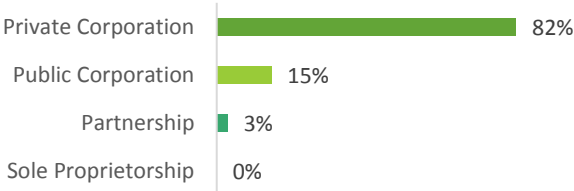
PROFILE

Type of Entity - The majority of respondents represented Private Corporations. No respondents identified as Sole Proprietorships.

Type of Facility – The majority of respondents identified being located in a leased facility.

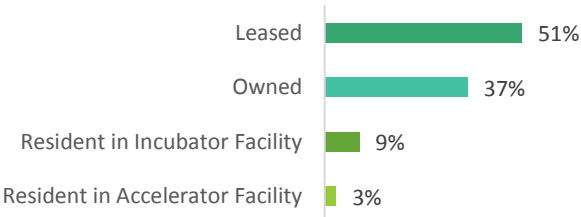
2.1.4 Type of entity

Figure 4: Respondent Profile – Canadian Bioproducts Companies by Type of Entity



2.1.5 Type of facility

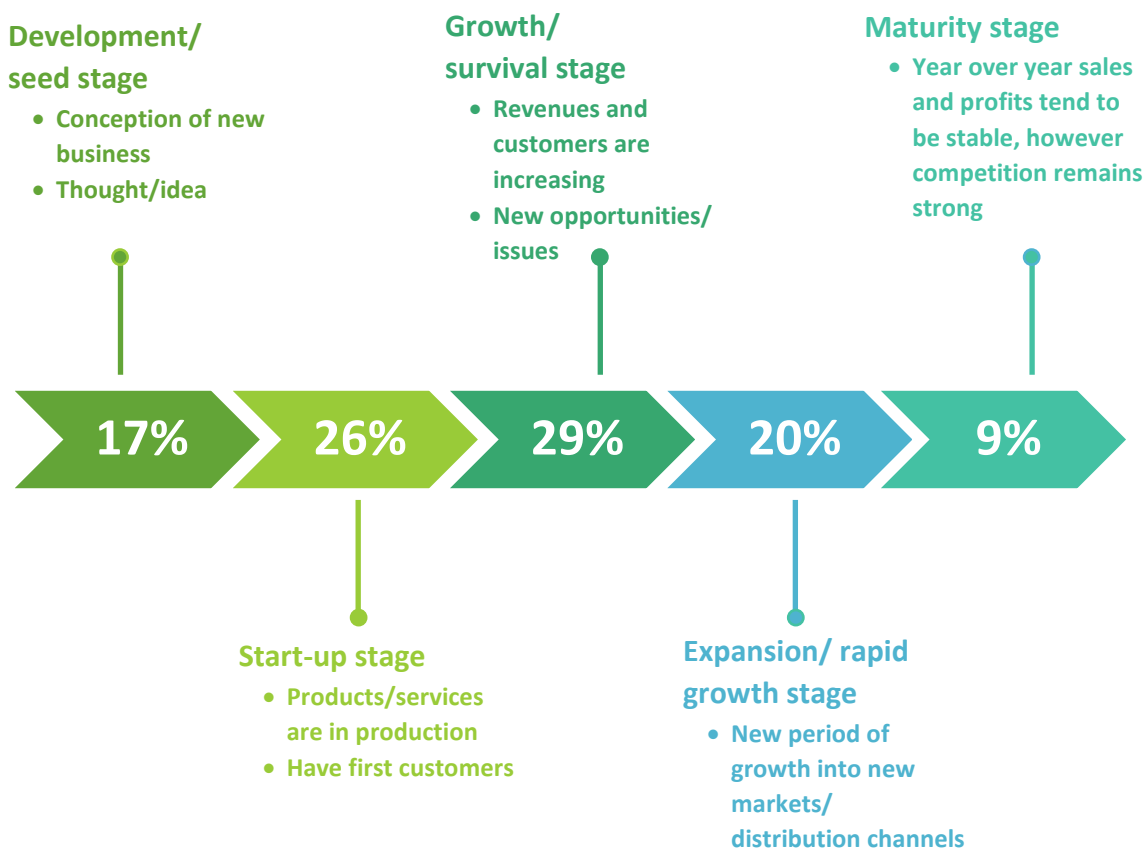
Figure 5: Respondent Profile – Canadian Bioproducts Companies by Facility Type



Investment Readiness of Canadian Bioproducts Companies

2.1.6 Stage of business life cycle

Figure 6: Respondent Profile – Percentage of Canadian Bioproducts Companies by Stage of Business Life Cycle



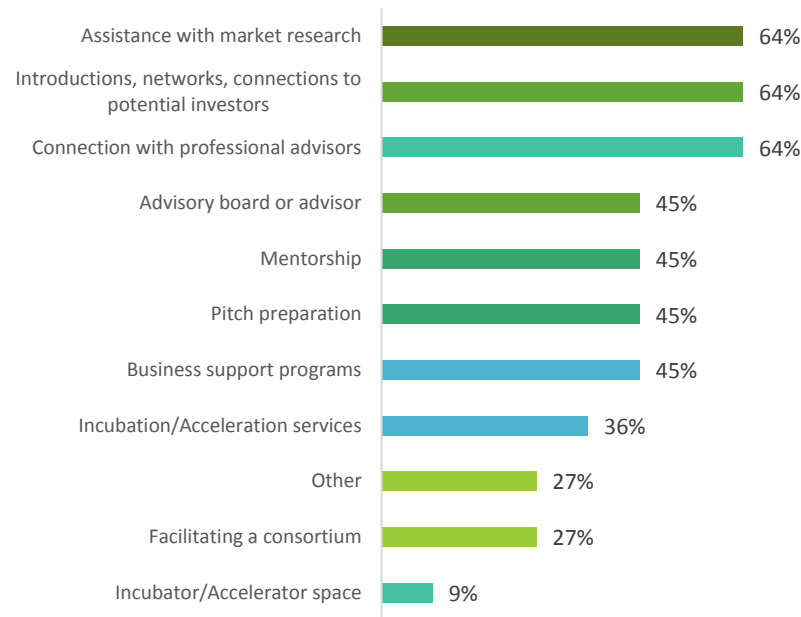
2.2 Suppliers of Capital

Telephone interviews were conducted with four investors/suppliers of capital. The investors/suppliers of capital included not-for-profit entities providing strategic capital investment to small to medium enterprises in specific provinces as well as some whose mandate was to invest in companies across Canada. Also included were venture capital firms with a multi-location presence in Canada investing in sectors of interest such as agriculture technologies, green chemicals, new generation of biofuels, and biomass transformation. Investment levels ranged from less than \$100,000 to several million dollars and, depending on the investor/supplier of capital, could be available to companies in any stage of the business life cycle or be limited to companies in a particular stage.

2.3 Providers of Resources and Support Mechanisms

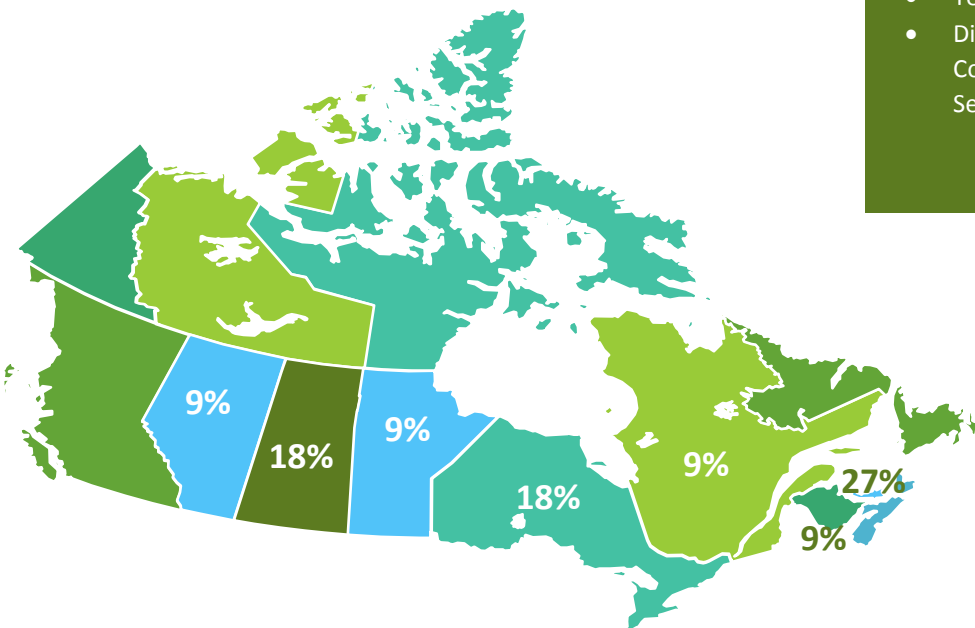
2.3.1 Service offering

Figure 7: Respondent Profile – Providers of Resources and Support Mechanisms by Service Offering



2.3.2 Geographic location

Figure 8: Respondent Profile – Providers of Resources and Support Mechanisms by Geographic Location



PROFILE

Twelve complete responses were received from providers of resources and support mechanisms. An additional 18 respondents answered only the initial survey question. This profile relates to the 12 valid responses.

Service Offerings – ‘Assistance with market research’, ‘Introductions, networks, connections to potential investors’ and ‘Connection with professional advisors’ were the most commonly indicated resources/supports.

‘Other’ responses were:

- Funding
- Technical Services
- Digital Marketing and Communications Services

3 DEMAND FOR INVESTMENT CAPITAL

3.1 Profile of Demand by Subsector and Stage of Business Life Cycle

Figure 9: Canadian Bioproducts Companies with Need to Access Capital – Profile by Subsector

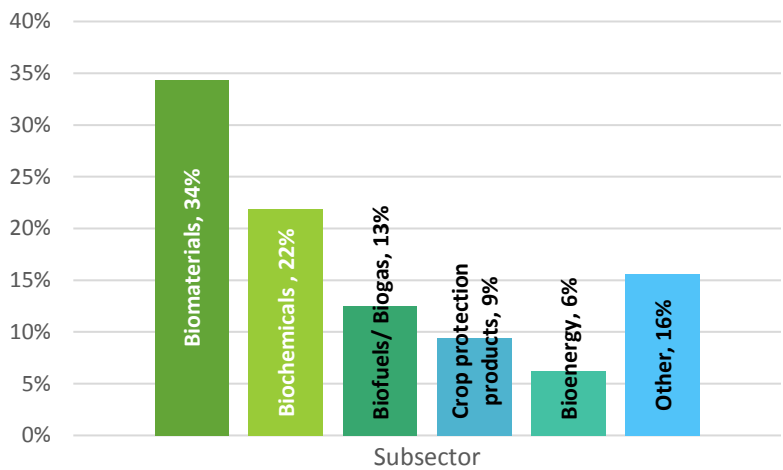
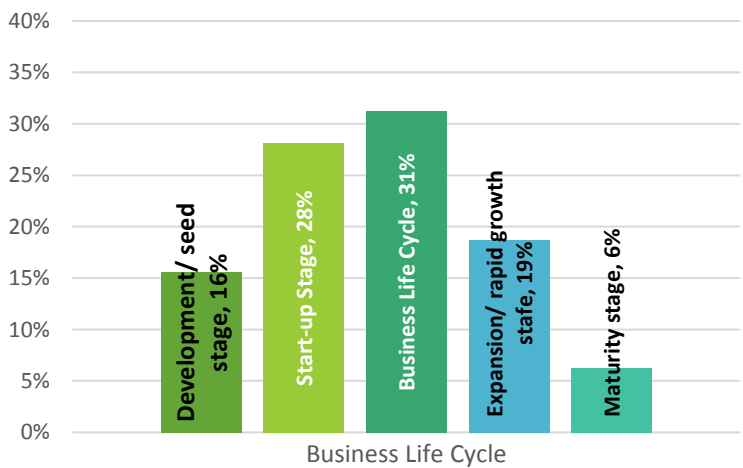


Figure 10: Canadian Bioproducts Companies with Need to Access Capital – Profile by Stage of Business Life Cycle



NEED TO ATTRACT INVESTMENT

Thirty-four (34) of the 37 responding companies indicated they have had the need to attract investment/ access capital for their bioproducts companies in the past two years.

The profile of companies needing to attract investment or access capital very closely matches the overall profile of the respondents, given that 92% of responding companies identified a need.

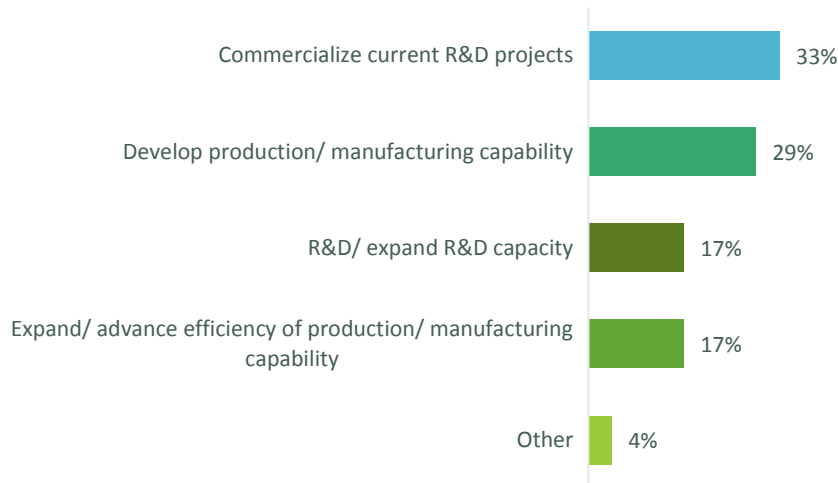
The ‘other’ subsectors indicated by respondents were:

- Sprayed bio-mulch for the soil protection and growth
- Diagnostics
- Proteins and biofertilizers
- Plant biostimulants
- Waste management

3.2 Reason for Raising Capital

The 34 companies who indicated a need to raise capital indicated their reasons as shown in Figure 11. The largest percentage of respondents - 33% - indicated commercializing current research and development (R&D) projects as the reason for raising capital, followed by 29% who indicated developing production/manufacturing capability.

Figure 11: Reasons for Raising Capital by Canadian Bioproducts Companies – All Responses

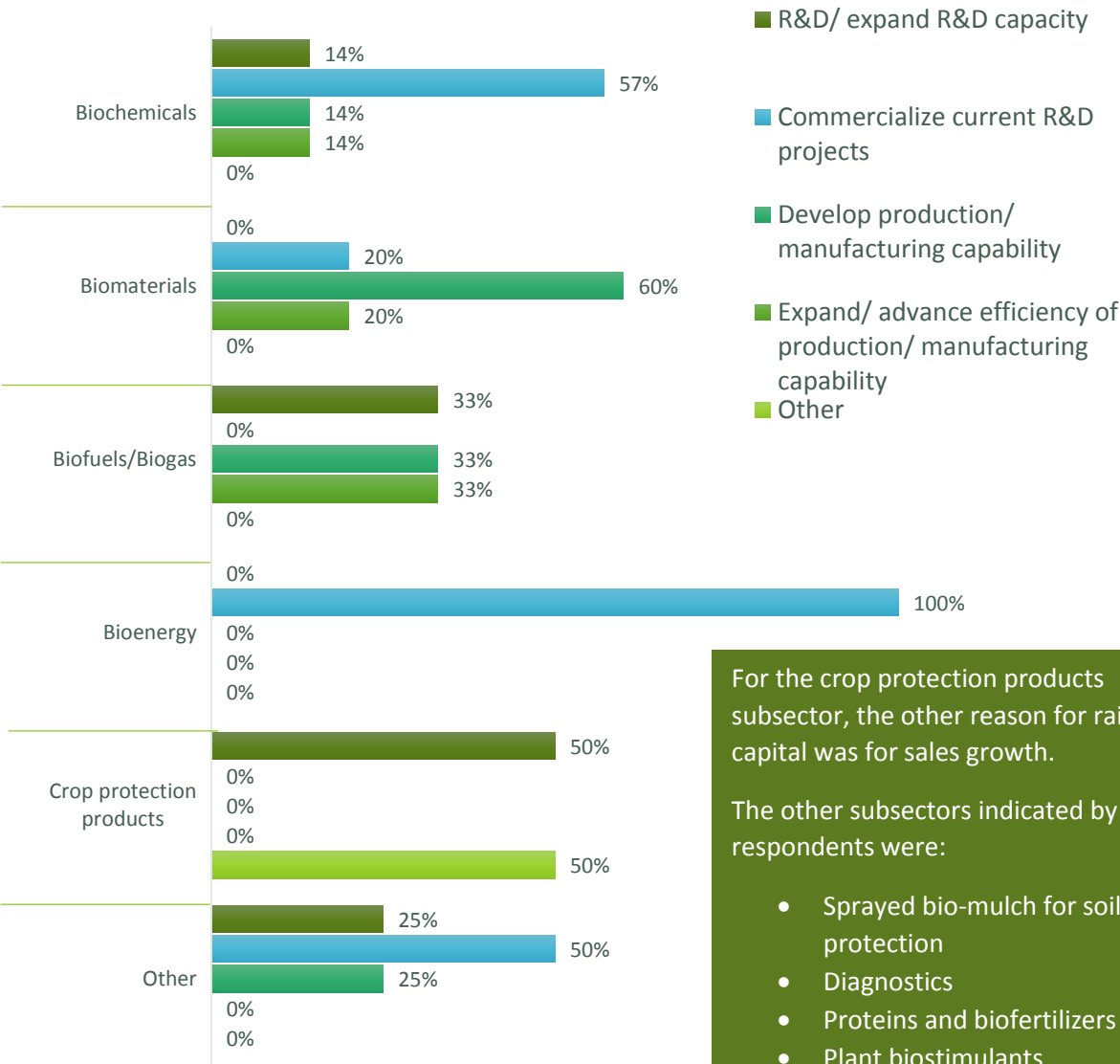


There were some differences by subsector in the percentage of respondents’ reason for raising capital. Commercializing current R&D projects was the most common reason (57% of companies) for raising capital in the biochemicals subsector and the only reason given by companies in the bioenergy subsector. Developing production/manufacturing capability was the reason indicated by 60% of the companies in the biomaterials sector. An equal percentage of companies in the biofuels/biogas subsector (33%) indicated R&D/expand R&D capacity, develop production/manufacturing capability, and expand/advance efficiency of production/manufacturing capability as the reason for raising capital. An equal percentage of companies in the crop protection products subsector (50%) indicated R&D/expand R&D capacity and sales growth as the reasons for raising capital. Figure 12 shows the reasons by subsector.

Follow up interviews conducted with support organizations validated these survey findings as reflective of the reasons for which companies are seeking capital investment.

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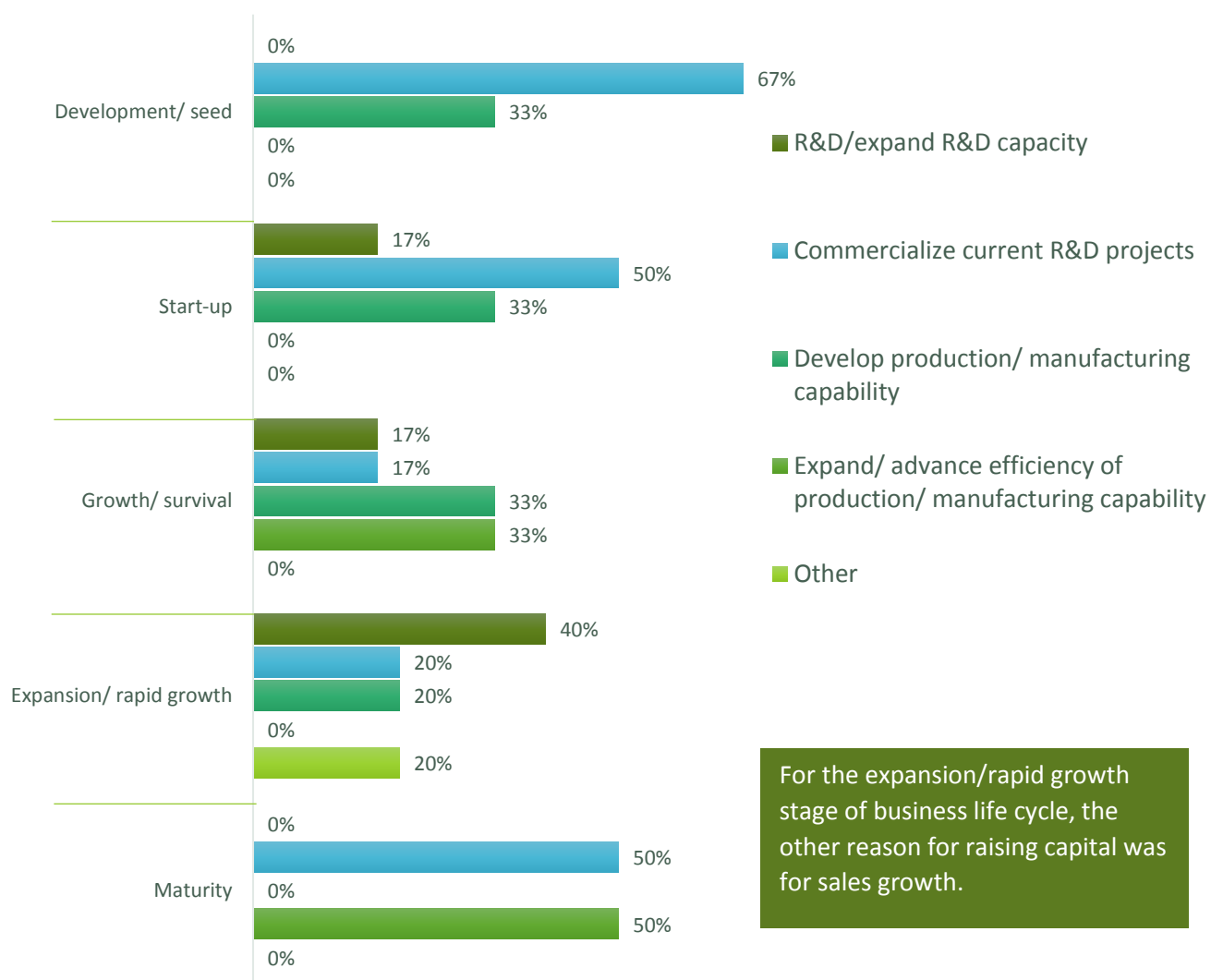
Figure 12: Reasons for Raising Capital by Subsector



Investment Readiness of Canadian Bioproducts Companies

Figure 13 shows the reasons given by the 34 Canadian bioproducts companies for raising capital, by stage of business life cycle. Commercializing current R&D projects was the main reason for raising capital in both the *development/seed stage* (67% of companies) and the *start-up stage* (50% of companies). In the *growth/survival stage*, develop production/manufacturing capability and expand/advance efficiency of production/manufacturing capability were the reasons provided by an equal percentage of companies (33%). In the *expansion/rapid growth stage*, 40% of companies indicated R&D/expand R&D capacity as the main reason for raising capital. In the *maturity stage*, an equal percentage of companies (50%) indicated commercializing current R&D projects and expand/advance efficiency of production/ manufacturing capability as the main reasons for raising capital.

Figure 13: Reason for Raising Capital by Business Life Cycle



COMPANIES AND
ACCESS TO CAPITAL

In the past two years, 33 of the 34 Canadian bioproducts companies who needed capital did make an attempt to access capital.

Given that 97% of the respondent companies who needed capital made an attempt to access capital, the profile of these companies does not significantly differ from the respondent profile.

Similar to overall survey responses, the largest percentage of companies were in the start-up stage of the business life cycle and were in the biomaterials subsector.

Reason for not attempting to access capital:

Only one respondent – from the Biofuels/Biogas subsector – indicated they did not attempt to attract investment/access capital for their bioproducts company in the past two years and the reason they provided was “self funding”. This respondent indicated the company is currently at the growth/survival stage.

3.3 Attempt to Access Capital

3.3.1 Profile of Canadian bioproducts companies who attempted to access capital

Figure 14: Canadian Bioproducts Companies Who Attempted to Access Capital by Subsector

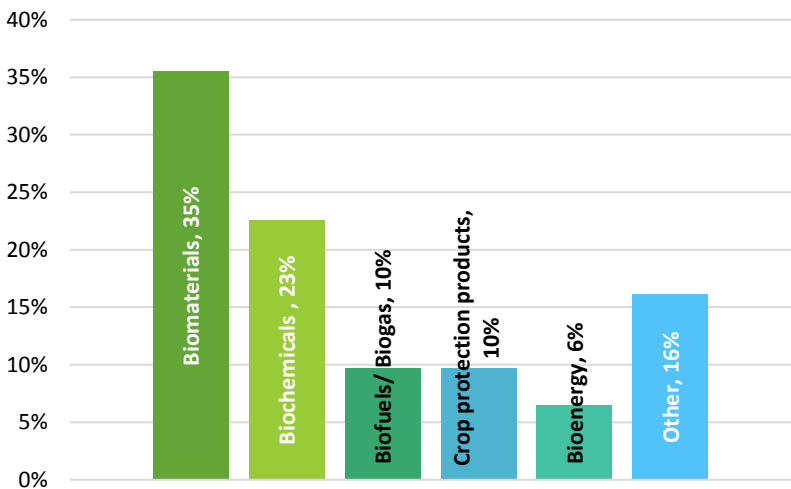
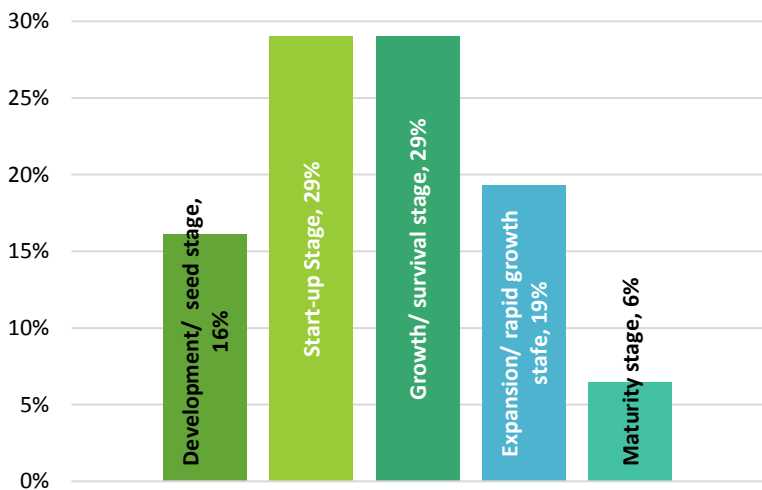


Figure 15: Canadian Bioproducts Companies Who Attempted to Access Capital by Stage of Business Life Cycle

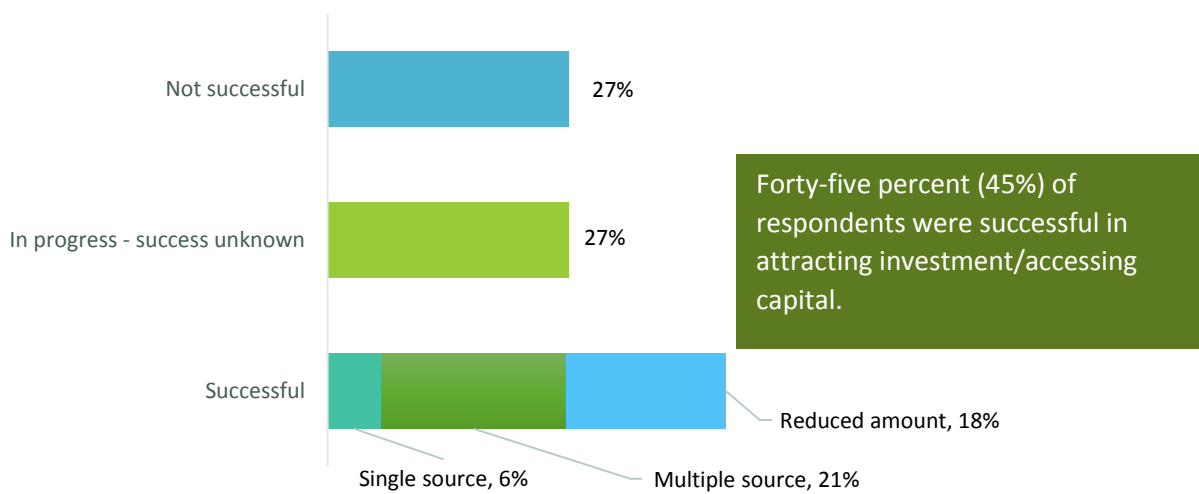


4 EXPERIENCE ACCESSING CAPITAL

4.1 Success Characteristics

Of the 33 companies who attempted to access capital, 27% were not successful and another 27% indicated that they were currently attempting to access capital but did not yet know the outcome of their request. Twenty-seven percent (27%) of companies were successful in attracting the capital they required, and this commonly resulted by accessing capital from multiple sources. A further 18% were successful in raising some capital, but in an amount less than requested.

Figure 16: Canadian Bioproducts Companies’ Experience with Recent Attempt to Attract Investment/ Access Capital – All Respondents

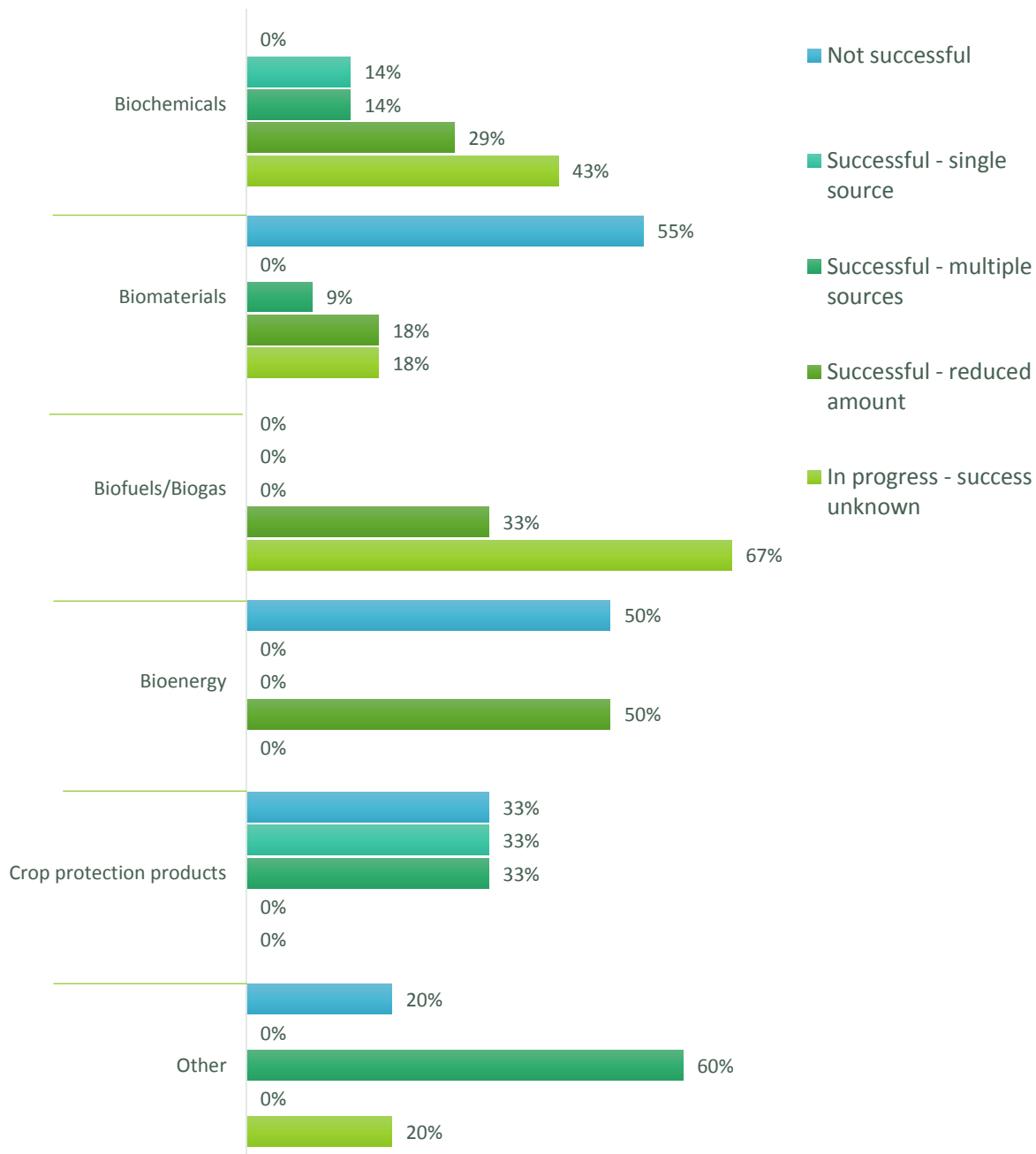


This survey finding was not surprising to most of the companies, support organizations or suppliers of capital who were interviewed. These interviewees spoke to the fact that accessing capital is fragmented and that many capital sources require companies to leverage from other/multiple sources. Some interviewees thought the percentage of companies using multiple sources might in actuality be higher. There were also some interviewees who felt the percentage of Canadian bioproducts companies as a population who were not successful in attracting capital might be higher than 27%. It is important to note that 27% of companies responded that their applications were in progress and they did not yet know the outcome.

Investment Readiness of Canadian Bioproducts Companies

The success characteristics by subsector are shown in Figure 17. Fifty-five percent (55%) of respondents in the biomaterials subsector, 50% of respondents in the bioenergy subsector, and 33% of respondents in the crop protection products subsector were not successful in accessing capital.

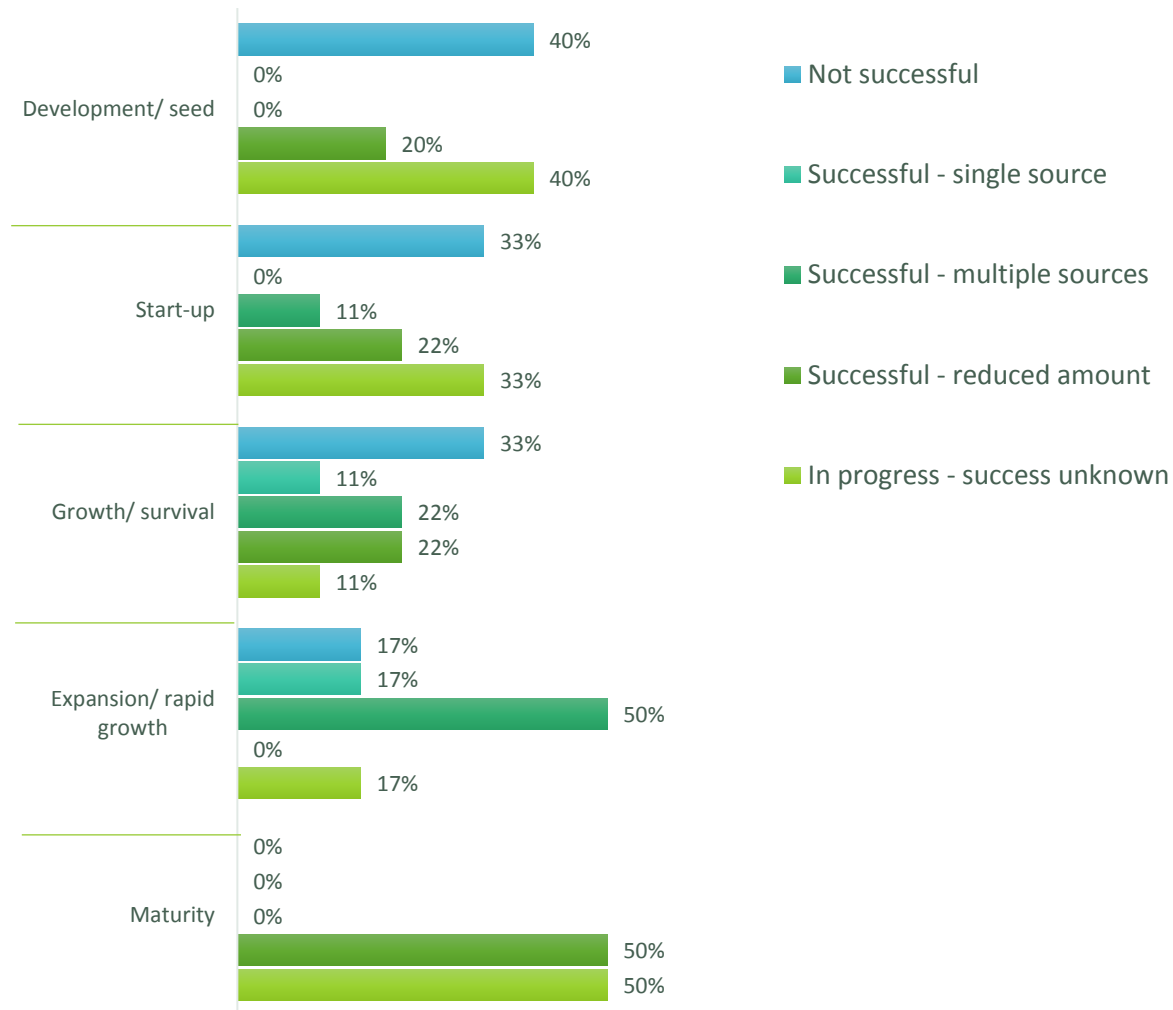
Figure 17: Canadian Bioproducts Companies' Experience with Recent Attempt to Attract Investment/ Access Capital by Subsector



Investment Readiness of Canadian Bioproducts Companies

As shown in Figure 18, 40% of the respondents in the development/seed stage of the business life cycle, followed by 33% of respondents in the start-up stage and 33% of respondents in the growth/survival stage were not successful in accessing capital during their most recent attempt. The success rates reported in accessing capital range from 20% to 67%, depending on the company's stage of the business life cycle. Factors vary as to whether companies were able to obtain capital from a single source, multiple sources and whether it was in the full amount they requested.

Figure 18: Canadian Bioproducts Companies Experience with Recent Attempt to Attract Investment/ Access Capital by Stage of Business Life Cycle



Investment Readiness of Canadian Bioproducts Companies

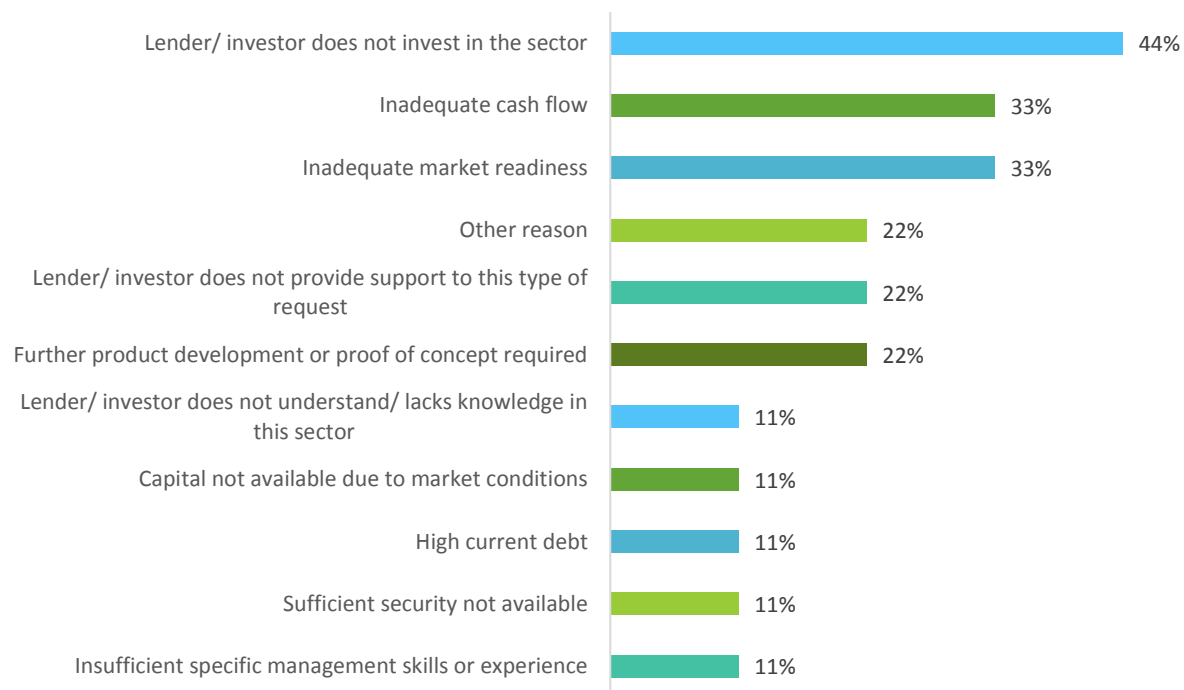
4.2 Reasons Request for Capital Denied

4.2.1 Lender/Investor does not invest in sector main reason received by Canadian bioproducts companies

Twenty-seven percent (27%) of the 33 Canadian bioproducts companies who attempted to access capital were denied access to requested capital. These companies were asked to identify the reasons related to their unsuccessful attempts. Of the nine reporting companies, the most common reason given (44%) was that the lender/investor does not invest in the sector. The responses received are noted in Figure 19.

One support organization felt that suppliers of capital may not always be truthful with applicants when they deny requests and indicated it was easier to just say they do not invest in the sector than to tell a business owner they lacked the needed management skills in their company. This was also echoed by one of the suppliers of capital interviewed.

Figure 19: Canadian Bioproducts Companies Reasons Received for why Request for Capital Denied



The reasons provided under 'Other' were: "the application was denied without much explanation" and "Generation Transfer Issue".

Five Canadian bioproducts companies provided comments related to their unsuccessful attempts to access capital. Two *growth/survival stage* companies provided comments, with one stating that in their experience "investors do not have the capital to invest and many are not getting return on previous investments" and the other stating they "need an investor manager to reduce their stress" related to accessing capital. One *expansion/rapid growth stage* company commented that even though they are in a strong growing market with a strongly positioned product, and are exporting 90% of what they are

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producing, they find that: for regular financing (e.g., through banks, BDC), their “company is at the breakeven point and has not had a strong enough history of profitability” while for venture capitalists, “their business is very niche and because of their age venture capitalist are concerned about a 5 to 7 year horizon for multiplying their value by 10 and the fact there is no generational transfer plan in place.”

Suppliers of capital who were interviewed provided the following main reasons for denying a request for capital:

- Business model does not demonstrate that it can work and lack of quality business plan including good market research (more than just the size of the target market).
- Product or process not sufficiently developed and further product development or proof of concept required.
- Management skills are weak.
- Lack of personal financial commitment.
- Lack of overall capital available for investment.
- No other investment partners.
- Owner has placed a high valuation on the company, and may have overvalued it, but has no interest in giving up any ownership.

4.2.2 Suggested initiatives to address investor reluctance to invest in sector

Canadian bioproducts companies provided the following ideas and comments related to investor reluctance:

- Improve the quality of investment proposals ensuring they clearly demonstrate ROI and other benefits.
- Encourage investors by reducing their risk with the provision of loan guarantees, tax credits and larger grants by the Federal government.
- Build investor confidence in the products by implementing a program like the US BioPreferred Program. A major part of this program is mandatory purchasing requirements for Federal agencies and their contractors.
- It is difficult to attract investors when competing with other companies also seeking investment where the risk is lower, the amount required is lower, and the ROI can be achieved in a shorter timeframe. A dedicated fund is required for the bioproducts sector to address this challenge.
- If the government is not willing to invest directly, they should direct more funds toward venture capital funds to invest in the sector.

Support organizations suggested the following to address investor reluctance:

- Investors require a balance between risk and return. There is a longer term for return on investment in the bioproducts sector coupled with a higher risk. There is a lot of risk association with the quantity, quality and consistency of biomass. This risk needs to be addressed to make

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investment more attractive. A suggestion for doing this is to create a reliable national data map that shows where materials are grown, yield potential, transportation options and risk assessment (e.g. floods that might impact crop). Currently, there are some provincial organizations/systems with bits and pieces of information – AAFC, Alberta, Ontario – but there needs to be a process to pull it all together and keep it updated.

- Trying to engage Provincial and Federal governments to work collaboratively to develop tools such as preferential tax credit support or other investment support to reduce the risk.
- An improvement to the methodologies and standards for preparing portfolios for investor should be made modelling the approach used in the US.
- Inviting investors to forums /conferences focused on the sector.
- Telling the bioproducts sector story in an authentic, truthful and positive way for investors. Support organizations and other groups need to help identify the narrative for companies so they are able to put this information in the investors' hands.
- Encourage companies who have successfully received investment to encourage their investors to invest in others in the sector.

Suppliers of capital suggested the following to address investor reluctance:

- Hosting events like the “Scaling Up Bioproducts Conference” and inviting potential investment partners to attend so they can increase their knowledge of the sector.
- Education and information on the sector for investors.
- Canadian companies should expand their view beyond Canada as opportunities for investment exist elsewhere. California and Boston were noted as two examples of areas where they are looking for investment opportunities.
- Providing incentives, tax relief, other financial benefit for companies to demonstrate how they are investing in and adopting alternatives to their products which could lead to enticing investors and lenders to invest in the sector.
- Put some public funds into marketing the success stories around green chemistry/green products and build some hype for the industry.
- Increase funding to entities like SDTC so they can increase their staff, scope, funds and ability to take on more risk.
- Developing flow through shares like they have in the mining sector which would give investors a write off of any losses.
- If there was away to require Pension Funds to invest .5% or 1% of pension funds in the bioproducts sector as is done in some other countries this would broaden the investment pool.

4.3 Barriers to Accessing Capital

4.3.1 Barriers identified by Canadian bioproducts companies

Twenty-four (24) Canadian bioproducts companies provided comments related to barriers they experienced when attracting investment/accessing capital. These comments have been grouped

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according to respondents' business life cycle stages. No comments were received from any companies in the *maturity stage* of the business life cycle.

Development/Seed Stage Companies:

- Matching money requirement
- Prototype development
- Product is too new and has no track record
- Do not understand the market for our product well enough
- Producing professional documents would have been a problem; however, we have a law firm providing services without billing until we close financing

Start-up Stage Companies:

- Very hard to find Canadian investors who will even look at start-up companies
- Sustainable Development Technology Canada (SDTC) refused to contribute for a residual \$5M on an overall financing of \$18M, when Invest Québec, the regional county municipality of Saint-Hyacinthe and the private sector contributed \$13M. The rejection of SDTC put an end to the current funding project.
- SDTC is not supportive for renewable natural gas technologies
- Capital intensive R&D and long commercialization timelines are not attractive to angel investors or venture capitalists
- Lack of continuity in government support for R&D-based companies. Existing programs such as Industrial Research Assistance Program (IRAP) and SDTC work well and have a sense of continuity, but newer programs recently instituted are highly fragmented, application processes are long and onerous, and programs mostly seem to be focused on buoying up academic and government research initiatives, rather than supporting development of a Canadian R&D industry. Government support for biotech research seems to primarily be aimed at developing technology that can be flipped/sold to venture capital and multinational companies, with very little or no focus on building a Canadian-owned and Canadian-based industry. There is also a significant lack of technology business knowledge in government-sponsored funding programs.
- Despite attending agri-themed investment summits and speaking to so-called agri investors, it appears that each and every one my company has spoken with is "too new" to make an investment of early-stage capital.
- Government wasting of company resources (time, energy) when there is no intent to fund.
- Lack of knowledge in the angel investor market
- Financial institutions not investing in Canadian business and lack of financing to move across the funding gap (between R&D and revenue) around commercialization.

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Growth/Survival Stage Companies:

- Financial institutions and specifically Canadian institutions are reluctant to take any risks on first-of-its-kind technologies/technologies that are capital intensive. Export Development Canada (EDC) refuses to provide funding without a commercial partner and the terms under which a commercial partner will come into any deal lack flexibility.
- It has taken 3 years to raise equity from small private investors which has placed us way behind schedule. In our experience, most small and medium sized enterprises (SMEs) require more than \$1,000,000 and less than \$5,000,000 to begin commercial revenue. Angel investors are limited to smaller amounts under \$100,000. Venture capital investors want to see sales revenues, invest a minimum of \$5,000,000 and want 25% ownership minimum with a short exit strategy (e.g., 2 years max and a 5-time multiple ROI). This is a very expensive and onerous cost of capital.
- Debt lenders including Agriculture Financial Services Corporation (AFSC), Business Development Bank of Canada (BDC), Alberta Treasury Branch (ATB) will not lend to pre-revenue start-ups because we can not demonstrate the ability to repay the loan. This is referred to as “the valley of death” for start-ups. SDTC recognizes this problem, but only selects a few companies each year. For the companies selected, it is a very long and arduous process that needs to start more than a year in advance. And even with these programs, companies still need investors and lenders to supplement the gap.
- Not enough government commitment to supporting alternative energy companies/projects.
- Canadian government requires far too long to review funding processes in addition to favoring companies that are large and profitable, thereby reducing the number of new companies that can be supported.
- Several of the funding programs [e.g., Atlantic Innovation Fund (AIF) with Atlantic Canada Opportunities Agency (ACOA)] are difficult to access since the company must show up-front that they are able to finance their portion of a 3-to 5-year project. This is often difficult for a SME. It often seems that the projects which are funded go to proponents that could have supported themselves financially in the first place.
- The scope of innovation is big due to commercialization of both growing and processing activities; however, there is no capital to invest.
- In our experience, the barrier is a seemingly insurmountable thick stone wall. A million different things have to magically occur to be a perfect fit to any capital that might be out there. The technology or product offering has to have every ‘I’ dotted and ‘T’ crossed. If even one item is not perfect, the investment community will move on to the next deal. There doesn't seem to be any aggressiveness or progressiveness in the investment community.

Expansion/Rapid Growth Stage Companies:

- Complex paperwork in the applications for funding
- Wanting to remain in control of our company (a privately-owned incorporated company at the forefront of a unique range of bio sustainable products) while raising development finance
- There are too many restrictions

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- Small companies need more than venture capital as they want to make it work without selling off their equity
- Venture capital is not willing to support small ag-based niche companies in their industrial development plan
- We needed help with purchasing equipment to speed up our R&D
- Institutional funds are too risk-averse (e.g., 12-to 24-month to decide on a \$250K loan/investment at 10 % interest is much too long in the present economy). Their mission statements are not reflected in their ground-level behavior.
- In our experience, our company is in a growth phase for revenue, with 10x growth in 2017 and 3x growth this year. The company has working capital needs associated with this growth. Inventory, margin and government grants are sufficient to cover company needs, but the timing of cash receipt required the company to look at operating lines. No Canadian banks were able to get their credit committees to understand the credit, so the company had to look to investors and EDC to fund the cash receipt timing. Even with an equity buffer, the Canadian banks were not able to lend, even though banks in the United States (US) were.

No Stage Provided:

- It is agonizing and next to impossible to raise capital in clean tech/bioproducts. The barrier is a stone wall of 500 magic things that need to happen to ultimately lead to finding a firm or institution with actual real cash to invest. Our company was fortunately able to find an initial angel investor and leverage some grants in order to start generating profit.

4.3.2 Barriers identified by support organizations

Ten (10) organizations providing resources and supports to bioproducts companies provided comments related to the barriers to attracting investment/accessing capital that companies they have worked with have experienced. Summarized comments are as follows:

- **Time and Money Barriers:** Many bioproducts companies require significant time and money to demonstrate the commercial potential of their technologies and the capital intensity and long timelines required prior to commercialization make it difficult to attract private capital. It can be a chicken and egg situation to get capital to alleviate technological risks: there is a high cost of infrastructures in the chemical industry, both for scale-up and full-sized facilities. Also, many Canadian financing operations have long review times and complicated criteria. The amount of the investment being too low to push companies past growth boundaries is a common barrier. Key Performance Indicators (KPIs) required for additional funding are too high, or timeliness of grants and other funding sources require too much time to process, thus project deliveries are pushed back.
- **Emerging Cluster/Geographic Location Barriers:** It is challenging to attract investment for companies that operate in emerging clusters, and especially so if that company is geographically located in a region that is not well known as a cluster or opportunity for investors. In some cases, the product or service being offered is in a completely new bioproducts realm thus making it difficult to place a valuation.

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- **Business Acumen Barriers:** Lack of business development expertise when it comes to approaching investors or knowing how to structure deals and corporate governance.
- **Informational Barriers:** Lack of reliable information on quality, quantity and location of available biomass and risks associated with availability on an annual basis. Limited methods available to rapidly determine/grade biomass feed stocks
- **Regulatory Barriers:** No green labelling policy/program in Canada. Restrictive regulations e.g., green building materials certification, hemp processing. Ineffective Government procurement programs to stimulate industrial use.
- **Planning and Preparedness Barriers:** Poor preparation, lack of rigorous and viable business plan, inconsistent and premature proposed spending of money that does not align with critical path. Many companies are not seen as investor ready. They are considered too early stage and therefore don't have a good handle on valuation. Many investors are looking for larger scope investments (e.g., \$10M plus).
- **Access to Input Stream Barriers:** For example, a biomass to energy/bioproducts company sourcing biomass could be a challenge. Validating company assumptions on source biomass would be a large area of risk from an investment perspective as the entrepreneur's assumptions may be based on flawed data sources. Agronomic processes not aligned to provide biomass of the appropriate quality to the processor and not currently economically viable.
- **Transport and Logistics Barriers:** Post-processing transport logistics can be a challenge. For example, there can be unwritten requirements for 'claims' and intellectual property (IP) in the food space - unlike in the US.

Two of the barriers identified by support organizations, (1) insufficient expertise of companies in approaching investors or structuring deals and (2) challenges with accessing required information to validate assumptions being used, were further explored through follow up interviews with nine Canadian bioproducts companies and five support organizations. Interviewees were first asked what could be done to assist companies in developing more expertise. Some of the suggestions provided from the Canadian bioproducts companies follow:

- One company spoke to a valuable program they participated in that was run through an angel investor organization. The program consisted of one full day per week over a one-month timeframe with a group of 5-7 companies participating. During the month, staff challenged the business plans to help the companies develop a better presentation to investors.
- Guidance is needed for those companies where the owner does not have business experience but come from a science or some other background. It was felt an individual who could outline the steps, connect you to the right organizations and professionals to assist, and provide guidance throughout the process would be beneficial.
- Use of bank online toolkits for owners to educate themselves on ratios, margins, risk levels, etc.
- Organizations have to share the hard truth with companies about why they are not being successful in attracting investment.

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- It would be helpful if support organizations collaborated and made a more media rich support and pitch environment. Something media rich as an initial point of contact could help companies to build their confidence and showcase their best.
- It would be good for universities to have programs to support scientists in obtaining these needed skills.
- Government should pay top-tier private sector people who know the sector to assist in imparting these skills/running support organizations as companies need entrepreneurs with lived industry experience to provide meaningful value to companies in the sector.
- A mentoring program that can connect companies to other Canadians working abroad in major bioproducts companies since there are no large anchor companies in the sector in Canada from which you can gain experience.

Suggestions provided by the five support organizations follow:

- Improve the expertise/knowledge of staff in clusters and support organizations so they are better equipped to assist companies in this aspect.
- Create more awareness amongst companies of financial support available to access outside consultants with sector expertise.
- Encourage companies to have a good board for their company or to use Advisory Boards to provide advice and support.

Follow up interviews with nine Canadian bioproducts companies then explored challenges related to information gaps in supporting assumptions used in business models. Some of the suggestions provided follow:

- To address the gap one company indicated that strong partnerships with suppliers or distributors provided value to the data they used and they were able to work directly with them to acquire the information.
- A couple of companies noted that market studies can be done however they are expensive and difficult for some companies to do on their own. Pre-investment funds to cover this would help. One venture capital firm provided this.
- One company spoke to the ability to work directly with stakeholders to acquire the information required and another company also indicated that conversations with suppliers and customers helped them to cobble together the information they required.
- Government should play a role in gathering and publishing more data for the sector.
- Another company indicated while it would be fantastic to see highly organized national data that was widely accessible, it was unrealistic as by the time it was gathered and published it would be out dated.
- One company spoke to the challenge of supporting assumptions without giving away IP and their trade secret.

Some of the companies interviewed indicated they did not have any experience with problems validating assumptions:

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- One company indicated everything they do is to American Society for Testing and Materials (ASTM) international standards.
- Another company indicated that there has never been more access to information than we have today and that if you take the time information can be acquired from Statistics Canada and other government organizations and contacts.
- One other company indicated that they have been able to access published market research online and that trade associations have been helpful in filling gaps.

Follow up interviews with five support organizations explored challenges with information gaps to support assumptions used in business models. Some of the suggestions provided follow:

- One support organization indicated the challenge might not be with the identification of available biomass but with the fact that once the producer realizes the former waste product has value, the cost changes. Another support organization spoke to the challenge that sometimes the amount of biomass available is underreported to Statistics Canada.
- A few of the support organizations spoke to the fact that information is available, it is just not widely known that it exists and suggested that there was a need to create more awareness of some of the resources that AAFC, Biomass Quality Network Canada (BQNC), Statistics Canada and others have available on the sector.
- Development of data sheets that provide necessary information on various types of biomass.

4.3.3 Barriers identified by suppliers of capital

The suppliers of capital interviewed spoke to some of the barriers to accessing capital as being:

- Lack of coordination of available programs amongst the provinces and Federal government.
- Large number of programs with limited funds. Fewer programs with larger amounts per fund available would be better.
- Lack of understanding of the product among investors.
- A regulatory path that has to be followed that may not be well established and may be quite time intensive and costly.

4.4 Becoming Investor Ready

4.4.1 Use and value of resources and support mechanisms to become investor ready

Respondents were asked to rate the value of resources and support mechanisms in assisting them in being investor ready. The rating value of given resources and support mechanisms were assigned a numeric weight (Very Valuable – 3; Somewhat Valuable – 2; Not Valuable - 1). This numeric weight was multiplied by the number of responses. The total of all ratings was then divided by the total responses for the given resource or support mechanism in order to reach a total weighted average – as depicted in the chart that follows.

Thirty-one (31) companies provided a response to this question. If a resource or support mechanism was not available to or used by a company, they were asked to indicate this. The number of companies who used a specific resource or support mechanism ranged from 21 to 30.

Twelve (12) support organizations responded to the question and rated the value of resources and support mechanisms available from organizations to assist bioproducts companies in becoming investor ready. If a support organization was unsure about the value of resource or support mechanism, they were asked to indicate this. The number of support organizations who rated a specific resource or support mechanism ranged from 8 to 11.

‘Other’ responses for Canadian bioproducts companies were: “Composites Innovation Centre (CIC)”, “sizeable orders and the cash flow to support them (as the single most important thing)”, and “an experienced Chief Executive Officer (CEO) who was invaluable to the scientist behind the technology (CEO assisted with company formation and attraction of capital and agreed to work for up to 12 months to build the business with payment upon financing.)”. Responses received under ‘Other’ from support organizations were that companies need:

- to invest a significant amount of their own capital to show their commitment and sweat equity
- to attract employees with a proven track record in similar, successful companies or support for embedding them
- access to capital that is reasonable. “As this is a fledgling industry, investment risk is high and return on investment (ROI) is lengthy and does not fit within many existing exit strategies. There need to be alternative models for accessing funding.”

RESPONSES BY SUBSECTOR, STAGE

By subsector (# responses):

- **Biochemical** – Business support programs; Advisory board/advisor; Connection with professional advisors; Assistance with market research; Mentorship (6)
- **Biomaterials** - Introductions, networks, connections to potential investors (9)
- **Biofuels/Biogas** – Introductions, networks, connections to potential investors; Facilitating a consortium (2)
- **Bioenergy** – Introductions, networks, connections to potential investors; Business support programs (2)
- **Crop Protection Products** – Business support programs; Introductions, networks, connections to potential investors; Business support programs; Advisory board or advisor; Assistance with market research; Mentorship; Pitch preparation (3)
- **Other:** Introductions, networks, connections to potential investors; Business support programs (5)

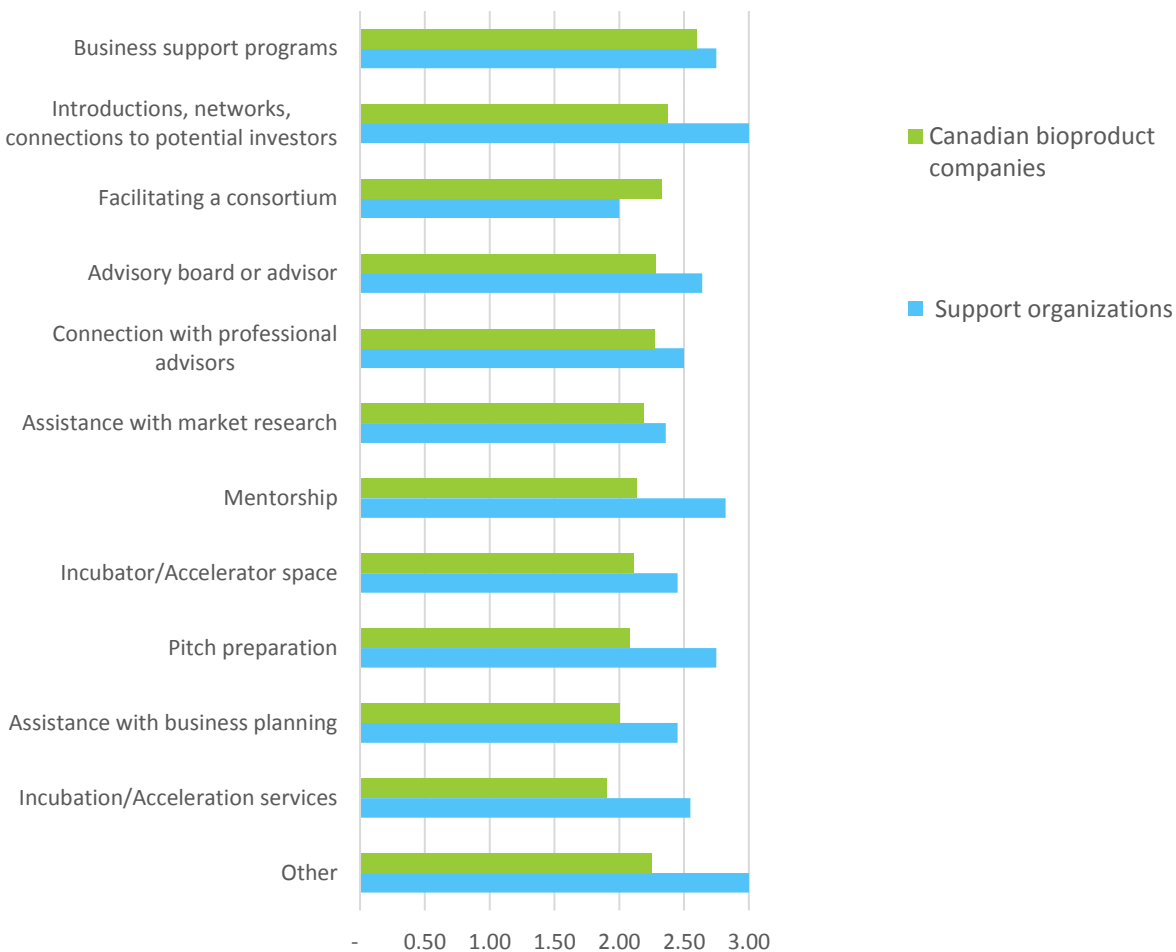
By stage of business (# responses):

- **Development/Seed**– Introductions, networks, connections to potential investors (5)
- **Start-up** – Introductions, networks, connections to potential investors; Facilitating a consortium (7)
- **Growth/survival**–Business support programs (8)
- **Expansion/rapid growth**– Connection with professional advisors (6)
- **Maturity** – All except Mentorship (1)

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The general comment was also made that, “depending on the stage of the company, the required resources and supports will differ greatly. Within each province there are several existing services that already address many of these issues; however, in some cases, the scale of support available to companies is limited.”

Figure 20: Ranking of the Value of Resources and Support Mechanisms in Assisting Canadian Bioproducts Companies to Become Investor Ready



Some of the resources and support mechanisms where the value was rated highly by those using the service (e.g. facilitating a consortium, mentorship, advisor or advisory board) were not used by 20% of the respondent companies, even though they were available. Follow up interviews with support organizations indicated that companies could be encouraged to access these services by creating more awareness of not only the services but of the organization’s ability to customize services to the company’s unique needs. Suggestions received from companies interviewed included:

- For those support organizations that also provide capital, make access to this capital contingent upon the use of these resources and supports.
- Having more access to advisors within support organizations with a higher level of expertise and willingness to customize the approach.

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- Better awareness of what stage of the business life cycle that specific tools are most useful for as well as any associated costs.

Some of the companies interviewed indicated that did not use the services for the following reasons:

- They felt they had the expertise they needed within their company and did not want to share company secrets with mentors or advisors.
- They wanted to be assured they were working with trustworthy individuals.
- They felt that they would not get a customized format but just a typical 'tick box' approach.
- They thought an industry think tank approach would be more beneficial.
- They felt these services are more geared toward earlier, developmental stage companies.
- Support organizations have required many time-consuming meetings, sessions, etc. as part of the process, which reduces the overall benefit to companies.
- They did not feel that the support organization could provide the expertise they needed.

4.4.2 Processes used by companies to become investor ready

Twenty-three (23) companies provided specific information on the process they used to become investor ready and successfully attract investment/access capital. Many companies also included detail on specific resources and support mechanisms that they used. These comments have been grouped according to respondents' business life cycle stages to illustrate supports that would most assist companies at various stages of development in overcoming barriers. No comments were received from Maturity stage companies.

Development/Seed Stage Companies:

- Natural Products Canada (NPC) information has been helpful as we are pretty early in this phase
- Addressing a local investor network. Unfortunately, even though we were investor ready, investors decided that we were not lucrative enough because our products would take several years to market.
- Composites Innovation Centre (CIC)
- You need a university that provides professional support and you need experienced business people to get involved early. The business people are key. We engaged a law firm and experienced executive to prepare the business plan, pitch decks and financial spreadsheets and these gave the company the credibility it needed. The University where the tech was produced did not have an accelerator or support for entrepreneurs but they are moving in that direction now and that support is important. Investor confidence was buoyed by the involvement of these two pieces.

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Start-up Stage Companies:

- Joined the MaRS Social Venture Connexion (SVX) social impact investment portal to help attract investors. This process helped to establish a solid foundation for investors to complete their due diligence process.
- Participated in existing programs and business development opportunities, e.g., British Columbia Food Processors Association Path to Commercialization Program, Nutrition Capital Network, Spring, Vantec/Keiretsu Angel meetings
- Developed the products, pilot manufactured them, and prepared a good business plan
- Internally generated market research and business case analysis
- Invested time and money to participate in multiple mentorship opportunities e.g., Ecofuel Board
- Directly engaged with potential customers and strategic partners to validate technology and confirm market demand

Growth/Survival Stage Companies:

- Investor Tax Credits have helped considerably
- We took the Company initial public offering (IPO) and built a commercial plant at a capital cost of \$160 million. We have over 70 customers and are exporting to 17 countries; however, we are still not profitable. Breaking into markets and commercializing product from a first-of-kind technology is difficult. We must have supply for a customer to consider purchasing, and building the markets requires resources to develop the applications and ensure they become embedded in supply chains. This often entails working with three or four companies along the value chain.
- I have attracted significant public funds to demonstrate both growing and processing activities for a rubber crop; however, investors are scared of the scope of the innovation.
- It started with securing angel investment. The company was then effectively able to leverage grants and other innovation funding and get to a point of positive cash flow. This allowed the company to obtain small loans and lease financing. Programs from IRAP, Agriculture and Agri-Food Canada, and scientific research and Experimental Development (SRED) tax incentive program were invaluable sources of funding and connections to potential partners. Key customers were also critical in seeking out new green bio products and technologies and getting orders placed. The company then moved on to self-financing through the valley of death, carefully managing innovation spending with our cash flow. The bigger growth capital has remained elusive. It exists, but it is rare!
- We did everything in-house as we are in a specialized field which makes it difficult for outside support in market analysis.
- Hired a general manager, developed more products and entered into marketing agreements. The services of the World Trade Center were helpful.

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- Accessed our local Research Innovation Commercialization (LaunchLab), worked with Southeastern Ontario Angel Network (SOAN), and leveraged SOAN investments to secure government funding.
- Invested our own time and money to develop and design the product to prototype stage. We started with National Research Council (NRC) and a Business Innovation Access Program (BIAP) program to help develop a business plan as well as IRAP to assist with R&D. Alberta Agriculture Department helped to develop the marketing study and planning. This allowed us to raise \$750,000 in the first year from friends and family investors. We hired outside consultants to develop a professional business model and planned to present to SDTC for funding, but they said we were not yet ready for SDTC. We needed to confirm sales and secure a bank loan and raise another \$2 Million in equity to qualify for \$2 Million in funding. The professional business model helped to raise more funds. We continued R&D product development to prove the ability to manufacture and perform testing and certification. We attained several milestones to reduce uncertainty and risk for investors. 70% was reinvested. It took too long to raise more funds and our SDTC application lapsed. We have attained minor revenues but not enough to be considered for bank loans. Our first demonstration project resulted in a sale and widespread media attention which boosted investor confidence. We continue to sell equity to raise funds.

Expansion/Rapid Growth Stage Companies:

- Used all available federal and provincial tax and grant funding programs for our category of bioproducts in all development aspects and marketing.
- Prepared a business development plan. It would have been a good thing to challenge that plan with a trusted mentor.
- Focused on our niche and owning it as well as the ability to build from a core of the product offering.
- Accessed regional development agencies like ACOA and Business New Brunswick. We also used R&D investments to prepare for commercialization.
- Sales traction was most important, but this was a capstone from hiring, attracting industry staff, product development, customer identification, production scale-up, patent filings for IP protection, financial management, etc. The company has worked with accelerator groups in the past - and found them quite useful - but this was not relevant for raising capital.

4.4.3 Addressing barriers to accessing capital

Canadian bioproducts companies and support organizations were asked what specific resources and support mechanisms would be valuable to assist companies in becoming investor ready and successfully addressing barriers to capital.

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4.4.3.1 *Canadian Bioproducts Companies' suggestions on how barriers to accessing capital be best addressed*

Twenty-six (26) companies provided suggestions on how barriers may best be addressed moving forward. These comments have been grouped according to respondents' business life cycle stages to illustrate supports that would most assist companies at various stages of development in overcoming barriers. No comments were received from Maturity stage companies.

Development/Seed Stage Companies:

- Engaging a law firm to provide professional document preparation services
- Getting prototype in place
- Spending more time understanding how to bring a new product to market or surrounding myself with companies who can assist in putting together this plan
- Changing requirements: if you have left your previous job, the matching money requirement is counterproductive because it decreases your capability to put skin in the game

Start-up Stage Companies:

- More specific programs to bridge the move from R&D to commercialization revenue
- Funding programs need to be better integrated into an overall strategy, and there needs to be a stronger overall focus on supporting R&D companies. New programs should be coordinated with ones that have been proven to work. There needs to be a recognition that public R&D funding should be there to support development of a Canadian Industry, and not to enrich venture capitalists or foreign multi-nationals. The government should take a much more proactive role in asking for input from constituent R&D companies that it is striving to support.
- Agri-Investment organizations need to do more to learn about the businesses they support and, in turn, do more to learn about their investor network's level of knowledge associated with an early-stage agribusiness. There is an opportunity to educate all around.
- Canada is losing globally important technologies to foreign interest because the "investment parameters" currently in place exclude pre-revenue companies from serious consideration. A solution will be hard to find in this investment climate.
- Need incentives for industrial and energy strategic partners to provide investment/grants/sponsorship funding for early-stage development. Government should allocate a portion of SDTC funds to match Natural Gas Innovation Fund awards.
- Offering our innovation to other countries.
- Government procurement program of sizable orders.

Growth/Survival Stage Companies:

- Develop a program aimed at SMEs and allows for more risks in the assessment of the proposals and the proponents

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- Both provincial and federal governments need to be committed to demonstrating the viability of alternative energy by installing systems in large public buildings including legislative
- Government should consider forgivable loans for alternative energy equipment purchases
- Government loan guarantees or patient capital from EDC or BDC without the requirement for a commercial partner
- Government loan guarantees for pre-revenue start-ups. This costs the government nothing; only requires a letter of credit to the bank. This would lower the cost of capital through lower interest rates and would allow for extended terms for repayment. The same should apply for equipment loans for manufacturers (e.g., providing a letter of credit to leasing companies). Early stage R&D grants work well as do employment grants. The problem is there are larger funding requirements for commercialization with very few programs in place with available funds.
- Government needs to hire qualified and experienced people to manage and run their granting departments. This means individuals that have worked in/for the private sector. The review process needs to be less than 90 days start to finish (cash in bank). Additionally, all of Canada's grants/funds are "matching". Given that Canada has a very low number of venture capitalists, few companies have access to the 50% required to obtain government grants.
- Government should invest in investment intensive projects
- Government grant decisions need to be made faster. The length of the process is costly and wasteful. Abolish government grants/programs and establish a lottery that funds a few vetted entrepreneurs and at least gives a few a chance to succeed and innovate rather than go through 10 years of seeking capital that doesn't exist. Get rid of and re-boot the entire venture capital community. Stop pretending and promoting that there is capital for entrepreneurs from not-for-profit government funded 'catalyst' organizations. These organizations do many things well including education, networking, outreach, but none of them effectively invest in the winners that they pick. The amount of money that actually goes into investment is a miniscule fraction of the cost of running these organizations. Stop wasting entrepreneurs' time.
- Loan guarantees could be provided.

Expansion/Rapid Growth Stage Companies:

- Simplify the application paperwork.
- Take a broad look at investment and offer more tax relief for owner-investors.
- Focus on US banks to access operating lines.
- Provide the opportunity to talk sooner in the process with executive decision makers in the investment/capital organisations in order to establish clear and simple prerequisite conditions for investment and go/no-go doors.
- Raising finance enables us to accelerate the commercialization goals of our bioproducts, but we need an exit plan if investors are involved. In the past, the banking industry has been reluctant to offer effective development loan structures through R&D periods.

Investment Readiness of Canadian Bioproducts Companies

No Stage Provided:

- Cut the red tape on government grant programs/IRAP/repayable loans and say either yes or no faster without wasting everyone's time and money. Force labour sponsored funds to invest in higher risk innovation rather with higher rewards (tax breaks). These funds get tax breaks but are rarely deployed for innovation. Get rid of most or all government grant programs and through a lottery back a small number of vetted innovators so at least a few get a chance to bring innovation to the table without wasting 10 years trying to find capital that does not exist. Wipe out the venture capital firms and try again.

4.4.3.2 *Support organization comments on addressing barriers to accessing capital*

Ten support organizations provided suggestions on how barriers to attracting investment/accessing capital could be addressed.

- **Improved/Access to Infrastructure:** Similar to the food centres that exist across the country, more common infrastructure is needed for early stage bioproducts companies to allow them to scale up and demonstrate commercial potential and attract investment capital. One support organization noted “we are offering versatile scale-up facilities for lease to private businesses. That way, companies can lease the facilities and equipment while they are involved in the de-risking of their new product or process, without immobilising the bigger proportion of their capital.”
- **Business and Business Development Support:** More networking support and better marketing activities that promote the region and its strengths. Mentorship, educational opportunities and support for embedded seasoned executives in the companies would help make good deals happen. Companies paying closer attention to detail and gaining more knowledge about what investor readiness means. More calculated risks need to be taken by companies in the funding stage and more interest from Canadian and foreign investors needs to be drawn to highlighted companies and growth organisations.
- **Existing Programs Working Together:** Many barriers are being addressed under programs coming out of the Industrial Bioproducts Value Chain Committee. Many could be overcome if supported by the Canadian Agricultural Partnership (CAP) program. The certification of building materials under NRC's Canadian Construction Materials Centre (CCMC) group needs to be reviewed and effective measures taken to expedite the process.
- **Improved Processes from Support Organizations:** Better due diligence by support organizations and showing “tougher love” to companies. Joint efforts must be made between industry, users and funding/support organizations with the intent of simplifying processes.
- **Data/Informatics:** The Bio-Resource Information Management System (BRIMS) database is a good step; however, the Statistics Canada data is a bit suspect because farmer respondents typically underestimate the volume of biomass available. It might be necessary to develop non-survey reliant means of measuring the available biomass source materials (e.g., aerial surveys, algorithms based on agriculture production sales volumes).

Investment Readiness of Canadian Bioproducts Companies

- **Expanded Financing Options:** More Canadian venture capital options. The concentration with a single source is not healthy.
- **Valuation Framework Applicable to All Company Stages:** A framework for valuation that is applicable to early stage companies with good growth potential needs to be developed. The existing valuation models are not easily applied to early stage companies with high growth potential.

4.4.3.3 *Support organizations suggestions on how companies could become more investor ready*

Nine organizations providing resources and support mechanisms provided their suggestions on how Canadian bioproducts companies could become more investor ready. Comments are grouped under the headings that follow:

- **Solid Business Case and Plan:** Building a viable business case is necessary, even if the technology is still at an early stage. Companies need to demonstrate that they have a novel concept that can capture an unfulfilled market need, not just show that they can transform a new material into another commodity feedstock. Companies need to understand the market and develop a realistic business plan that will ensure sufficient capital and operating funds to maintain positive cash flow during the start-up phase. They need to be sufficiently aware of the risks and develop a realistic risk mitigation plan that will reduce investor concerns. Encouraging companies to be much more cognizant of their value proposition against conventional products (rather than an attitude that "it's green, so the customers will come") will help build up stronger and more competitive value and investment propositions. Helping companies better articulate their 'story' in business plans and market access plans.
- **Improved Due Diligence:** Better due diligence by non-dilutive funders. Experienced mentoring by successful entrepreneurs and senior C-level personnel from significant companies would assist this process. Companies will have better results if they have better quality and more experienced Executives. Linking with support organizations that are results driven (as opposed to activity or checklist driven) would also help this process.
- **Supporting Companies through Development Stages:** Increasing companies' capacity to pilot to first sale, enabling them to achieve a confirmed customer would help make their risk level to investors more palatable (i.e., versus being an assumed business opportunity with no confirmed customers, making it unclear if it is a market push or market pull opportunity).
- **Building Awareness and Uptake of Available Programs:** Companies need to take full advantage of existing programs that offer mentoring, market intelligence, legal and accounting advice. Companies need to be not only open but accepting of advice from mentors and C-level executives (top executives) with experience. For example, companies could access financial and mentoring support through the Emergence Program. Access to advice from experienced professionals within funding agencies like IRAP, ACOA, and Innovation Prince Edward Island (IPEI) would help many companies achieve better results.
- **Improved Business Development Efforts:** Companies need to take more risks and increase internal budgets around their marketing and communications efforts in order to stand out. Companies need to engage in increased collaboration with industry stakeholders that will use

Investment Readiness of Canadian Bioproducts Companies

the products. Companies also need to be more ready to seek and receive funding from international investors.

4.4.3.4 Suppliers of capital suggestions on how companies could become more investor ready

Suppliers of capital who were interviewed offered the following suggestions for what companies could do to become more investor ready:

- Utilize existing resources like IRAP industrial technology advisors for advice.
- Take the time to make sure you have a good solid business plan and obtain professional assistance to prepare it.
- Look for opportunities to partner with other companies to share resources/reduce costs or utilize support organizations that provide scale up or testing facilities.
- Develop tools (templates, spreadsheets) that companies can utilize to understand the economics of their business idea.

Suppliers of capital who were interviewed were asked about the level of difficulty, if any, they experienced in finding partners to invest in Canadian bioproducts companies. Most of them indicated they are generally able to find investment partners but it is not without challenges. Many investors like technology or oil and gas because they feel they are less risky investments and their business models are well known, while bioproducts tends to be larger scale and the business model is less well understood, especially in Canada. They also indicated that with a business life cycle to ROI of 5 to 12 years (regulatory paths are a contributor), this is not attractive to investors as they are usually looking at 3 to 4 years. The sector is also dealing with a history of some large investment failures that make investors more reluctant to invest. Some suppliers of capital are seeing a trend of more agriculture-based investors over the last 5 to 10 years, given the globally-recognized need for bioproducts and value-added foods. Some of the partners mentioned were venture capital, BDC, SDTC, angel investors, private equity investors and Natural Products Canada.

5 PRIMARY SOURCES OF CAPITAL

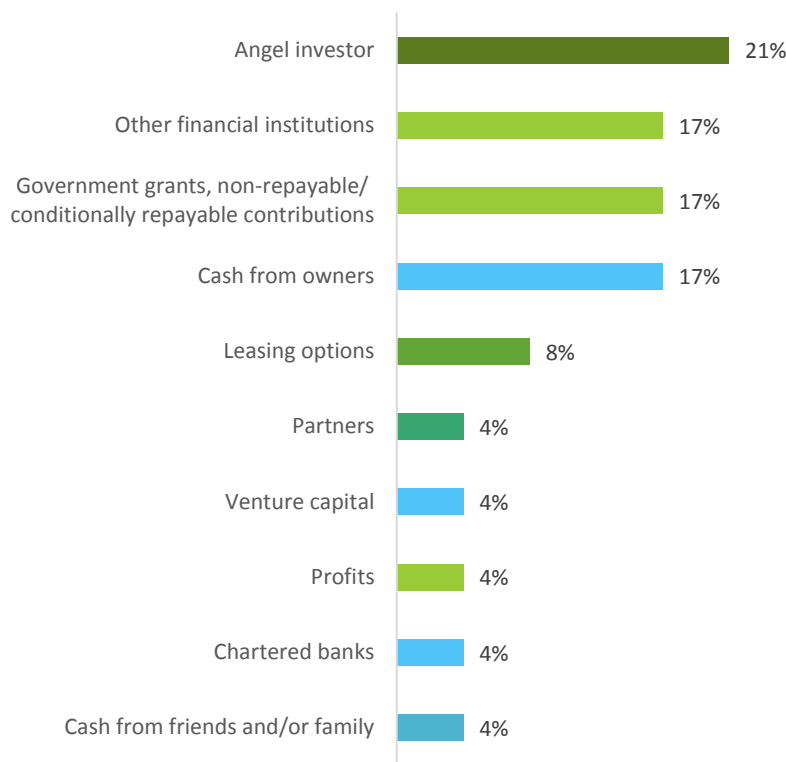
5.1 Overview

Canadian bioproducts companies were asked to reflect on their most recent experience attracting investment/accessing capital and to indicate their primary source of capital from a list of 20 options. Twenty-four (24) companies provided a response to this question.

5.1.1 Primary Source of Capital

Of the 24 companies who indicated their primary source of capital, angel investor was the most common source. This source was most prevalent to the biomaterials and bioenergy subsectors and for companies in the *development/ seed, growth/survival* and *maturity stages* of business life cycle.

Figure 21:Percentage of Canadian Bioproducts Companies Indicating Specific Capital Source as Primary



During follow up interviews with companies and support organizations, interviewees were not surprised to see limited use of chartered banks and venture capital firms. Interviewees indicated that chartered banks are generally risk adverse, don't understand the timelines, have high security requirements, and tend to focus on well

TOP RESPONSES BY SUBSECTOR/STAGE

By subsector:

- **Biochemical** – Government grants or non-repayable or conditionally repayable contributions
- **Biomaterials** - Angel Investor
- **Biofuels/Biogas** – Cash from owners, Profits, Other: Natural Gas Innovation Fund
- **Bioenergy** – Angel Investor
- **Crop Protection Products** – Cash from Owners
- **Other:** Angel Investor, Partners, Other: Offering Memorandum through MaRSVX, Other: Chartered Banks

By stage of business:

- **Development/Seed**– Cash from Friends/Family, Government Grants/non-repayable or conditionally repayable contributions, Angel Investors
- **Start-up** – Cash from Owners, Other: Offering Memorandum through MaRSVX; Natural Gas Innovation Fund
- **Growth/survival**– Angel Investor, Other: Public markets; Private placement, TSX.V
- **Expansion/rapid growth**– Government Grants/non-repayable or conditionally repayable contributions
- **Maturity** – Profits, Angel Investor

Investment Readiness of Canadian Bioproducts Companies

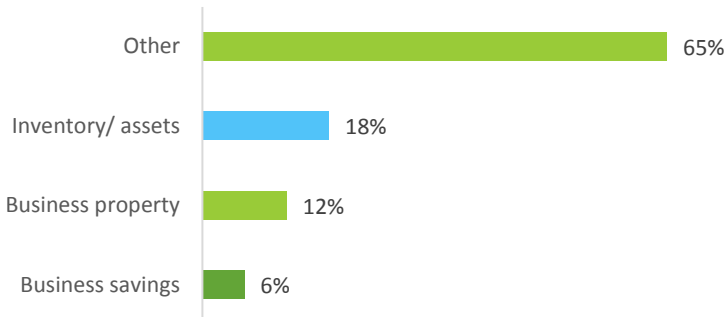
established, less complex sectors with well-established revenue history. Interviewees noted that venture capital firms tend to invest in companies where the return on investment has a shorter timeframe and that this sector is often outside investors' scope of knowledge and comfort. A lack of venture capital firms in Canada was also suggested as a factor as well as some companies unwilling to give up equity. A couple of companies interviewed also spoke to challenges with accessing SDTC and AAFC funds, given time required for the application process, "overkill on due diligence performed", and the length of time before companies receive a decision. These companies also spoke to the challenges accessing BDC funding due to the matching level required on the venture program and the need for proven sales and customers in order to access regular BDC financing.

5.1.2 Type of security

Respondents were asked to indicate the source of security they were required to provide in order to access their source of capital. This was an 'indicate any that apply' question, and some respondents indicated more than one form of security. Seventeen (17) companies provided a response. Of the security options provided, no responses were given for:

- Personal or business credit cards
- Personal property
- Personal savings
- Accounts receivable

Figure 22: Common Form of Security – Regardless of Source of Capital



Responses provided under 'Other' were:

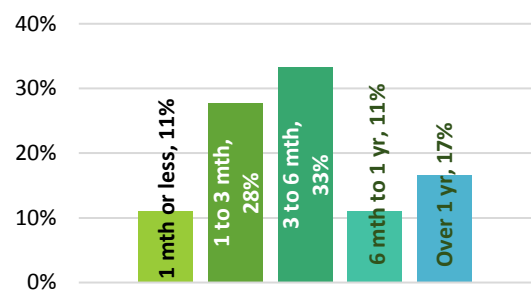
- Personal guarantee (2)
- Equity ownership shares
- Sale of equity ownership
- Company equity
- Funds matching 50/50
- Convertible debt shares
- Stock
- None (3)

Investment Readiness of Canadian Bioproducts Companies

5.1.3 Length of time to obtain capital

Eighteen (18) companies indicated the average length of time it took to secure capital financing. Three to six months to secure capital financing was the average length of time indicated by the largest percentage (33%) of responding companies.

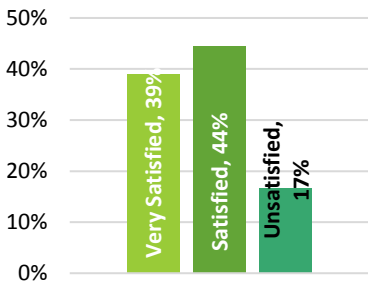
Figure 23: Average Length of Time to Secure Capital Financing– Regardless of Source of Capital



5.1.4 Level of satisfaction with terms

The majority of the 18 responding companies were either very satisfied (39%) or satisfied (44%) with the terms.

Figure 24: Level of Satisfaction with Terms – Regardless of Source of Capital



General comments provided by respondents related to the level of satisfaction with terms were:

- Still in progress with no positive funding results
- The terms and conditions of the financing were exceptionally onerous

Investment Readiness of Canadian Bioproducts Companies

5.2 Detail by Source

In this section of the survey, respondents were provided with 20 different sources of capital and were asked to reflect on their most recent experience in attracting investment/accessing capital, and to indicate the primary source (the source supplying the highest percentage of their needs). Twenty-four (24) companies indicated the primary source for their most recent experience in accessing capital. Of the potential sources of capital provided, no responses were provided for the following:

- Credit cards
- Suppliers
- Customers
- Government repayable contributions
- Credit Unions
- Business Development Bank of Canada (BDC)
- Sustainable Development Technology Canada (SDTC)
- Joint ventures
- Licensing
- Initial public offering

In cases where multiple respondents indicated a particular source of capital, responses are summarized and presented in graphs in the sections that follow. Twenty-four (24) companies responded to the questions related to their most recent experience in attracting investment/accessing capital.

5.2.1 Cash from owners

Seventeen percent (17%) of respondents indicated their primary source of capital was “Cash from owners”. The profile of these respondents is shown in Figures 25 and 26.

Figure 25: Primary Source of Capital Obtained from Cash from Owners – Profile by Subsector

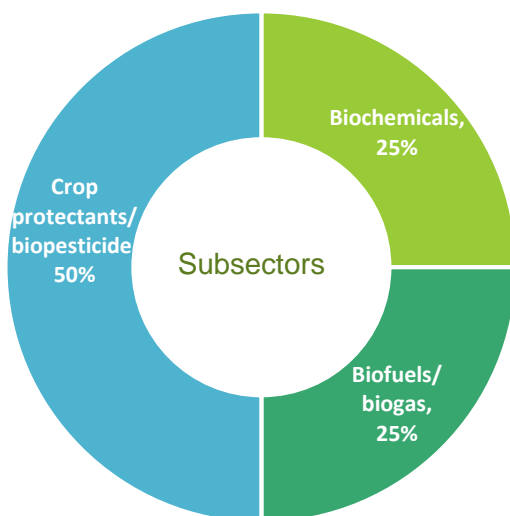
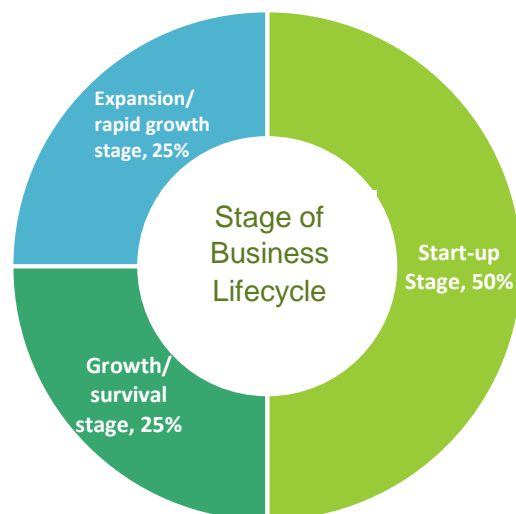


Figure 26: Percentage of Primary Source of Capital Obtained from Cash from Owners – Profile by Stage of Business Lifecycle



Investment Readiness of Canadian Bioproducts Companies

5.2.2 Angel Investor

Twenty-one percent (21%) of respondents indicated their primary source of capital was “angel investors”. The profile of these respondents is shown in Figures 27 and 28.

Figure 27: Primary Source of Capital Obtained from Angel Investor – Profile by Subsector

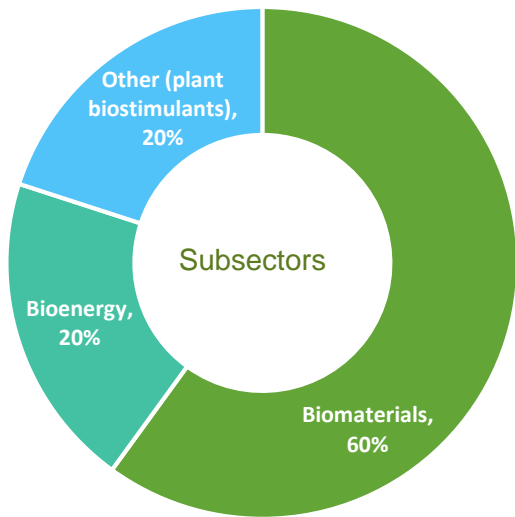


Figure 28: Primary Source of Capital Obtained from Angel Investor - Profile by Stage of Business Lifecycle

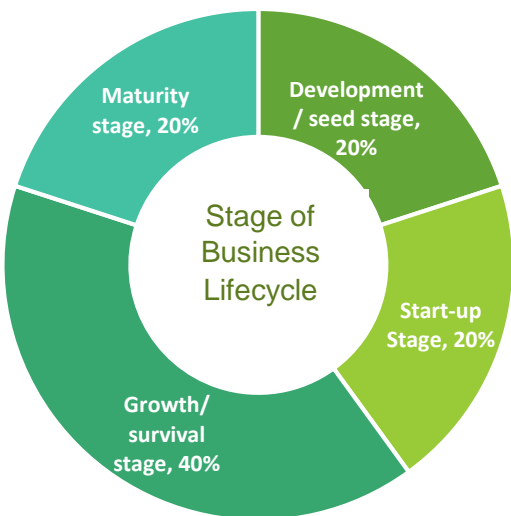


Figure 29: Level of Satisfaction with Terms from Angel Investor

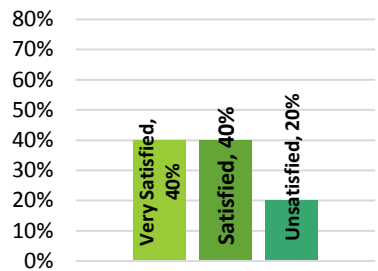


Figure 30: Length of Time to Secure Capital Financing from Angel Investor

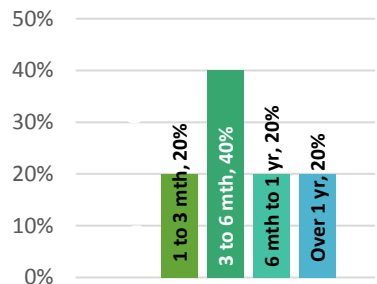
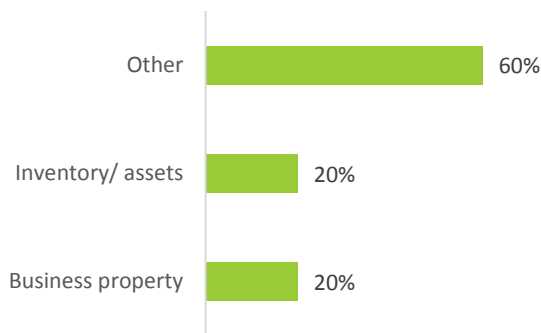


Figure 31: Source of Security Required to Access Capital from Angel Investor



Responses provided for ‘Other’ were: “convertible debt/shares”, “stock”, and “sale of equity ownership”.

Investment Readiness of Canadian Bioproducts Companies

5.2.3 Government grants or non-repayable or conditionally repayable contributions

Seventeen percent (17%) of respondents indicated their primary source of capital was “Government grants or non-repayable or conditionally repayable contributions”. The profile of these respondents is shown in Figures 32 and 33.

Figure 32: Primary Source of Capital Obtained from Government grants or non-repayable or conditionally repayable contributions – Profile by Subsector

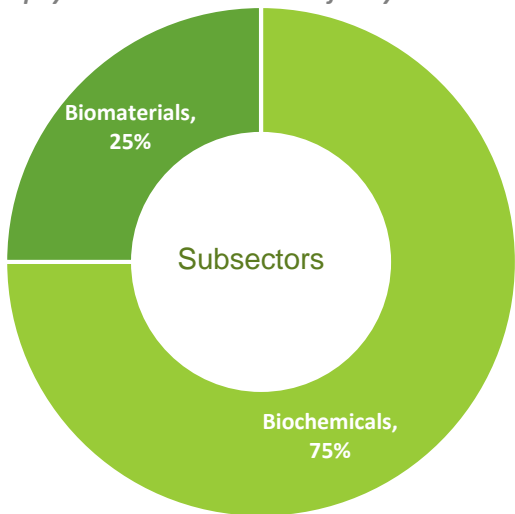


Figure 33: Primary Source of Capital obtained from Government grants or non-repayable or conditionally repayable contributions – Profile by Stage of Business Lifecycle

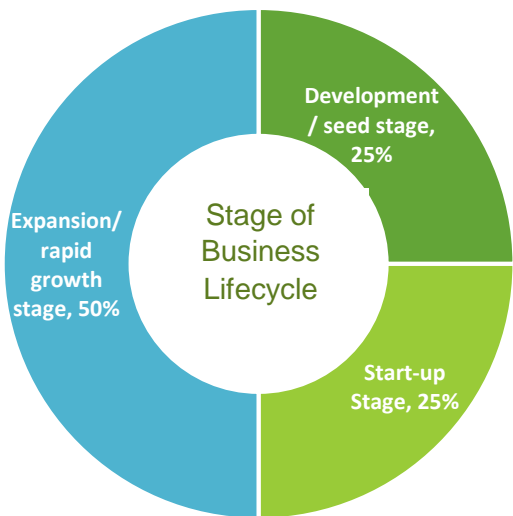


Figure 34: Level of Satisfaction with Terms from Government grants or non-repayable or conditionally repayable contributions

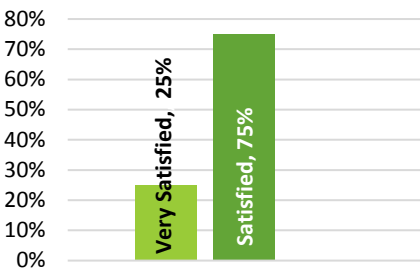


Figure 35: Length of Time to Secure Capital Financing from Government grants or non-repayable or conditionally repayable contributions

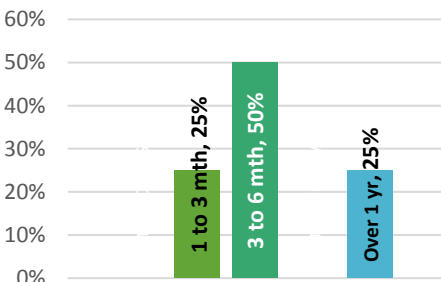
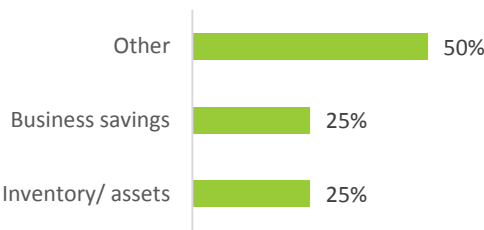


Figure 36: Source of Security Required to Access Capital from Government grants or non-repayable or conditionally repayable contributions



Responses provided for ‘Other’ were: “fund matching 50/50” and “none”.

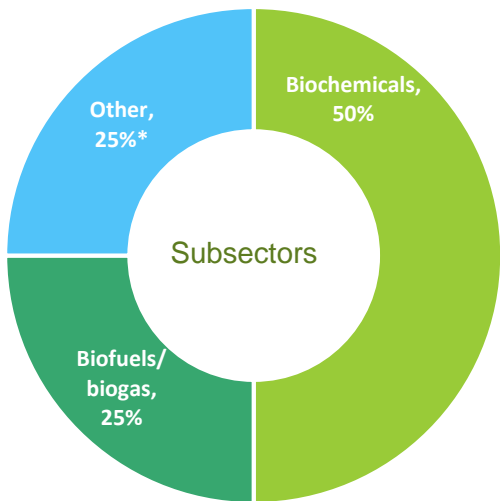
Investment Readiness of Canadian Bioproducts Companies

5.2.4 Other Sources of Capital/Financial Institutions

Seventeen percent (17%) of respondents indicated their primary source of capital was “other”. The profile of these respondents is shown in Figures 37 and 38. Sources of capital identified by respondents were:

- Offering Memorandum, MaRS SVX
- Public markets
- Private placement, Toronto Stock Exchange Venture (TSXV)
- Natural Gas Innovation Fund

Figure 37: Primary Source of Capital Obtained from Other Sources – Profile by Subsector



*Other: “Sprayed bio-mulch for the soil protection and growth”

Figure 38: Primary Source of Capital Obtained from Other Sources – Profile by Stage of Business Lifecycle

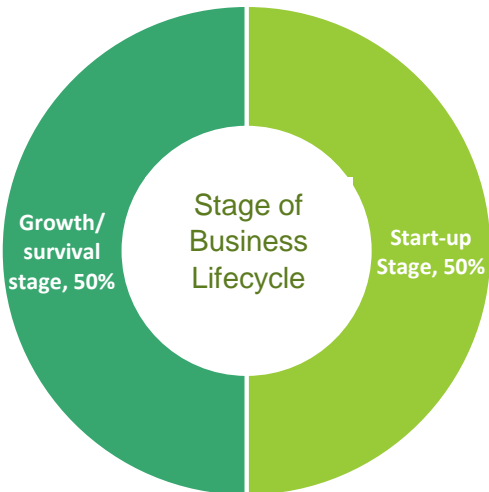


Figure 39: Level of Satisfaction with Terms from Other Sources

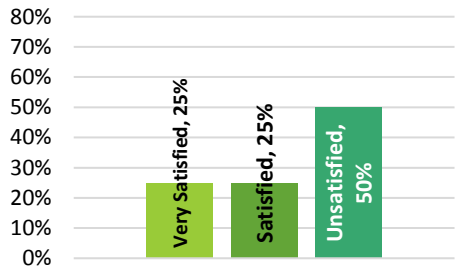


Figure 40: Length of Time to Secure Capital Financing from Other Sources

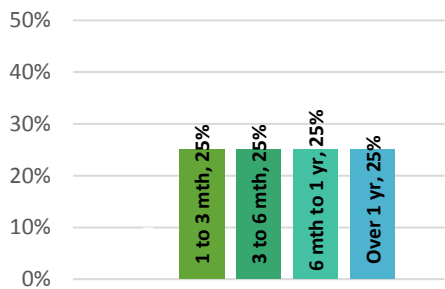
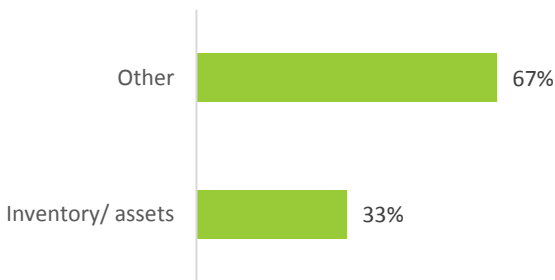


Figure 41: Source of Security Required to Access Capital from Other Sources



Other sources of security noted were: “equity ownership shares” and “none”.

Investment Readiness of Canadian Bioproducts Companies

5.2.5 Profits

Only one respondent indicated their primary source of capital was “Profits”. This respondent was from a Maturity stage company in the Biofuels/Biogas subsector.

5.2.6 Cash from friends and/or family

Only one respondent indicated their primary source of capital was “Cash from friends and/or family”. This respondent was from a Development/seed stage company in the Biochemicals subsector. The length of time it took this respondent to secure capital financing from this source was “1-3 months”, the source of security required to access capital was “Company equity”, and the respondent’s level of satisfaction with the terms from this source was “Very satisfied”.

5.2.7 Chartered Banks

Only one respondent indicated their primary source of capital was “Chartered Banks”. This respondent was from an Expansion/rapid growth stage company in the Other category and identified themselves as a waste management company. The length of time it took this respondent to secure capital financing from this source was “3-6 months”, the source of security required to access capital was “Business property”, and the respondent’s level of satisfaction with the terms from this source was “Very satisfied”.

5.2.8 Venture Capital

Only one respondent indicated their primary source of capital was “Venture Capital”. This respondent did not answer follow up questions or provide further information related to subsector, stage of business life cycle, time to secure capital, source of security required or level of satisfaction with the terms.

5.2.9 Partners

Only one respondent indicated their primary source of capital was “Partners”. This respondent was from an Expansion/rapid growth stage company in the Diagnostics subsector (captured under ‘Other’ subsectors). The length of time it took this respondent to secure capital financing from this source was “1-3 months”, the company did not require a source of security to access capital as “the partners are equity holders”, and the respondent’s level of satisfaction with the terms from this source was “Very satisfied”.

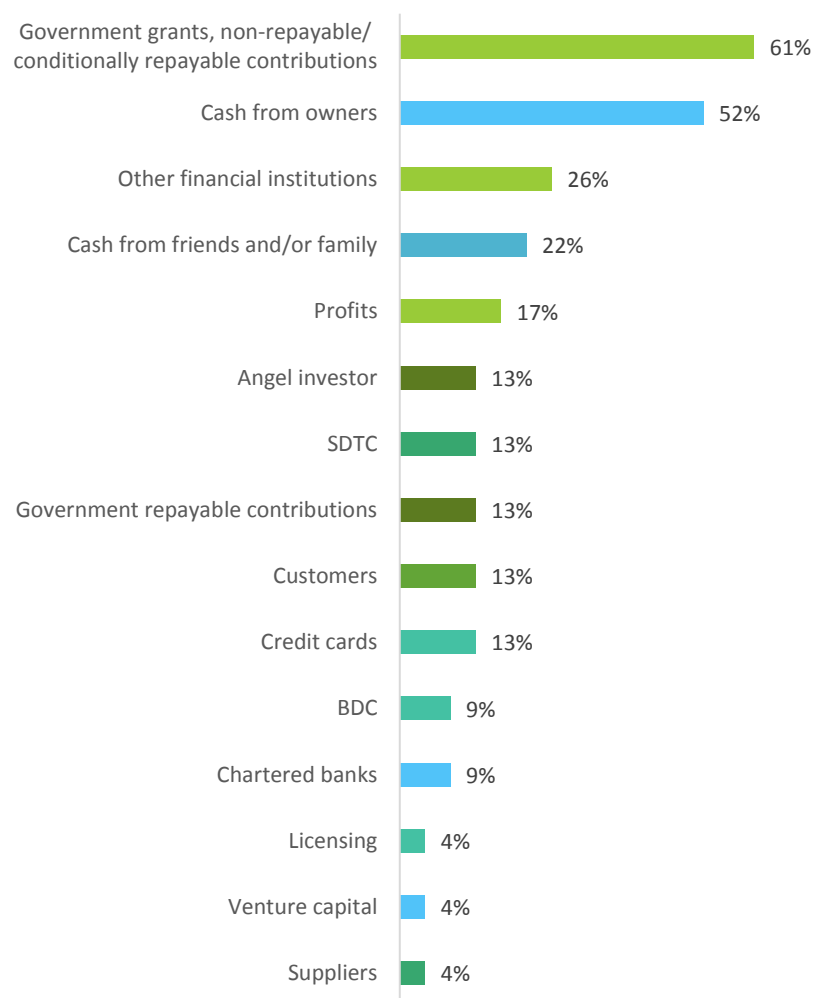
5.2.10 Leasing Options

Two respondents indicated their primary source of capital was “Leasing Options”. Only one respondent provided detail on their subsector and stage of business life cycle, and this respondent was from a Growth/survival stage company in the Biomaterials subsector. The length of time it took the two respondents to secure capital financing from this source was “1 month or less”, the companies both required “personal guarantees” as a source of security to access capital, and the respondents’ level of satisfaction with the terms from this source was “Satisfied”.

5.3 Non-primary Sources of Capital

For this question, Canadian bioproducts company respondents were asked to reflect on their most recent experience in attracting investment/accessing capital and to indicate other sources of capital received (in addition to that from their primary source of capital). Respondents were invited to select all that applied. All 23 respondents to this question identified at least one source of capital they received that was in addition to their primary source of capital (i.e., no 'None' responses were received). Seventy-four percent (74%) of respondents indicated more than one additional source of capital while 26% of respondents indicated more than three additional sources of capital. Sixty-one percent (61%) of respondents indicated that government grants, or non-repayable/conditionally repayable contributions from government were an additional source of capital that had been received. Other sources/financial institutions noted were: EDC (2), SRED Tax Credits (2), Natural Gas Innovation Fund, and "we are currently talking to Angel Investors and NPC, results unknown at present."

Figure 42: Percentage of Canadian Bioscience Companies Indicating Additional Sources of Capital Received



6 BEST PRACTICES – INTERNATIONAL ORGANIZATIONS

Organizations supporting the industrial bioproducts sector in other countries were interviewed to learn from their experiences related to supportive resources and successful strategies implemented to assist bioproducts companies in their jurisdiction to improve their investment readiness and to address barriers to accessing capital.

Organizations who agreed to participate in best practice interviews included the Biotechnology Innovation Organization (BIO) in the US, Biobased Delta in the Netherlands and Assobiotec in Italy.

BIO [www.bio.org] represents more than 900 biotechnology companies (80 of which are in the industrial biotechnology sector), academic institutions, and state biotechnology centres across the US and in more than 30 other nations. The main areas of focus include policy and advocacy, communications and public relations, and conferences and meetings. BIO promotes the use of industrial enzymes, conversion of biomass to energy and chemicals and innovative clean up technologies by working closely with the US Congress, federal agencies and international organizations to encourage the development of technologies to make lives and the environment cleaner, safer and healthier. They also create and advance industry policies on all food and agriculture biotechnology issues related to international affairs, government relations, science and regulatory affairs and media and public affairs. Other areas of focus include serving the needs of small to medium size emerging biotech companies and promoting biomedical innovation by developing and advocating for public policies focused on human health.

Biobased Delta [www.biobaseddelta.nl] is a cluster in the Southwest of Netherlands (from Amsterdam to Antwerp). It is a triple helix organization with small and large businesses, knowledge institutions and government. There is lot of agriculture in the region, led by well educated farmers and horticulturists, and a lot of automation. They also have the largest chemical cluster in the world and are close to Rotterdam - “The Gateway to Europe”. Biobased Delta’s role is to make connections (business to business, business to knowledge institutions), work with SMEs on product development, execute various projects, and search for new value chain partners. Important themes are the valorisation of sugar, large-scale biorefinery and bio-aromatics.

Assobiotec [<https://assobiotec.federchimica.it>] is the Italian Association for the Development of Biotechnology, representing over 130 companies and science and technology parks operating in various biotech related fields in Italy. Approximately 25% of the companies would be in the industrial bioproducts field, with the majority of these companies being start-ups. Assobiotec represents the Italian bioindustry at national and international levels, provides a forum for the exchange of information and initiatives of entrepreneurial relevance, fosters collaboration between industry and academia, supports the coordination of technology transfer, provides education and creates awareness of the sector, and advocates for the sector in areas such as regulatory issues affecting production, marketing and use of biotechnology and harmonization of standards.

6.1 Barriers Observed

The barriers to accessing capital reported by the international organizations were not observed to differ significantly by business life cycle; however, one international organization indicated that it can be more

Investment Readiness of Canadian Bioproducts Companies

challenging for early stage companies. Another international organization noted that there seems to be lots of support for R&D but the start-up/scale up “Valley of Death” is the challenge.

6.1.1 Lack of Investor Awareness and Knowledge of Sector

One organization noted that it is difficult to match investors with companies. There is a lack of awareness of this sector and lack of analyst expertise for the sector compared to other sectors where there is greater awareness, understanding and investment opportunities are more plentiful.

6.1.2 Lack of Investors in the Region

All organizations reported there is often a lack of investors within the region or country. It can be a challenge to not just convince the investor that the company is a good one to invest in but also to convince the investor that the country/location is a good one to invest in as well. There are a lot of investors who will try to lure companies to other countries or locations through investment dollars.

6.1.3 Reputation and Track Record

The sector is not the same as the high-tech sector, it is extremely hard work, takes longer to market, requires more money, and the investment community has already had disappointments in the sector. The reputation and track record of bio-based companies has not been good as they have over promised and under delivered and this creates a challenge for new companies in obtaining investor confidence.

6.1.4 Weak Management Team

The most important factor for an investor is the management team. An investor given two options - (1) a great product and a weak management team or (2) a mediocre product and a strong management team - will take the second option every time.

6.2 Resources and Support Mechanism to Support Investment Readiness

Helpful resources and supports identified by these international support organizations included:

- Green tech investor sessions and business partnering sessions during the Biotech World Congress on Industrial Biotechnology
- The development of new policies to incentivize companies such as the BioPreferred program to increase the purchase and use of bio-based products. The program includes mandatory purchasing requirements for federal agencies and their contractors and a voluntary labeling initiative.
- Organize a bio-based business development day where topics such as IP management, market development and finance are discussed, opportunities are provided to showcase products and pitch to investors.
- One-on-one sessions with companies to drill down on business plans and challenge assumptions to prepare for investor pitches.
- Link companies with investment and funding sources and assist with application processes.
- Present an annual Start-up Initiative/Investment Forum which provides a venue for start-ups who have been selected by a panel of coaches and experts to present their projects to investors, corporations and players in the innovation ecosystem.

Investment Readiness of Canadian Bioproducts Companies

- Provide bootcamps for start-ups with sessions on how to best present to various types of investors, how to create great management teams, how to prepare a business plan.
- Because of a shortage of investors in their home country, they bring groups of companies abroad to meet international investors.

6.3 Lessons Learned

The international organizations shared a number of lessons learned related to addressing barriers and assisting companies in becoming more investor ready:

- Having responsibility for the sector centered in one department versus spread across various ministries (e.g., Innovation, Agriculture, Energy) results in a more focused approach, avoids weakening the support for the sector and makes it easier to educate those involved in the sector.
- A supportive policy environment will accelerate the growth of the sector.
- There is a diverse supply chain within the industry so a one size fits all proposition does not work.
- An annual bioproducts sector indicators report has been a useful tool to educate and increase broader awareness and support for the sector.
- Taking a group of companies pitching their proposal to where the investors are located has helped generate some 'buzz' for the sector and allows investors to see what is happening in the sector without the added time and cost of travel.
- Introduced Pension Fund to the sector but found that Pension Funds are looking to invest in lower risk and proven sustainable companies so are now exploring the creation of a new fund with a higher risk profile to invest in the sector.
- Need to develop a good realistic story about the sector including all of its elements; function, quality advantage, creation of jobs and not just the environmental benefits.
- Canadian companies should be looking to collaborate with companies in Europe on technology. Canada could add value and European companies could open up broader markets. The new Canada-European Union Comprehensive Economic and Trade Agreement (CETA) may provide some opportunities for a collaborative approach.
- Creating a good management team is extremely important and aligning your company goals with that of your region and or country is also important.

APPENDIX I METHODOLOGY

Agriculture and Agri-food Canada received access to an existing database of companies contributing to the bioproducts space in Canada, developed by Bioindustrial Innovation Canada. This list was reviewed by Agriculture and Agri-food Canada and the IRWG Co-Chair to remove non-applicable categories of service providers and was further supplemented by other internal listings. This new list provided a total population of 272 organizations from whom information pertaining to the experience of Canadian bioproducts companies in attracting investment and accessing capital could be ascertained.

An online survey was developed by MRSB Consulting Services using conditional branching to direct Canadian bioproducts companies, suppliers of capital and organizations providing resources and support mechanisms to a line of relevant questions. The survey was reviewed and approved by representatives of AAFC, the IBVCRT, and the IRWG. A copy of the survey script is included in Appendix II. A survey link was distributed via the IBVCRT email account to the population of 272 email addresses and was available for completion for a three and one-half week period. Reminder emails were sent to the population one and two weeks after survey launch. In addition, Natural Products Canada circulated the survey link to their mailing list.

Seventy-four responses were received to the survey, including 41 bioproducts companies, 30 support organizations, and 3 suppliers of capital. The data cleaning process involved reviewing the responses for any duplicate entries (potential respondents did not receive a unique link to the survey), ineligible respondents and surveys that were not sufficiently complete to be of value. During the cleaning process, 25 responses were removed: four duplicate responses, a response from a company that was not in a relevant subsector, and 20 surveys where the survey was abandoned after completion of the initial question. The data cleaning process resulted in 49 responses being retained for analysis consisting of 37 companies and 12 support organizations.

A summary of preliminary survey findings was prepared and presented to representatives of the AAFC and the IRWG. Areas requiring a more detailed exploration were identified and 18 survey respondents (who provided consent for telephone follow up) were selected for a key informant interview. Fifteen (15) of these respondents were available for follow-up interviews. Telephone interviews were also conducted with four suppliers of capital. Best practice interviews were held with three international organizations from the United States (1) and Europe (2) to learn from their experiences and opinions on the barriers, challenges, successes and environment for companies accessing capital in their jurisdictions.

APPENDIX II INVESTMENT READINESS SURVEY OF CANADIAN BIOPRODUCTS COMPANIES

MRSB Consulting Services has been engaged by the Investment Readiness Working Group of Agriculture and Agri-Food Canada's Industrial Bioproducts Value Chain Roundtable to gather information to better understand the experience of Canadian bioproduct companies in attracting investment and accessing capital to better inform our understanding of companies' needs in order to become investor ready. We are interested in hearing from Canadian Bioproducts Companies, supporting organizations and suppliers of capital to this sector.

Please assist us by sharing your experiences related to investment readiness, supportive resources, successful strategies, and existing barriers. Your feedback is invaluable to provide the Working Group with an accurate representation of bioproduct companies' current experiences.

The survey will be available online from February 16 to March 7, 2018. By completing this survey, you are directly contributing to improving the climate for investment readiness in the bioproducts sector of Canada. Your responses will help improve the climate by helping better understand what is working well and where improvements can be made. Thank you kindly for your time. Your privacy is important to us. Individual responses will be kept strictly confidential. Survey results will be aggregated for analysis and only aggregated data will be made public.

The survey will take approximately 15 minutes to complete and must be fully completed in a single sitting.

Should you have any questions or experience any technical difficulties while completing the survey online please contact:

Stacey Evans at stacey.evans@mrsbgroup.com or (902) 368-2643

*** 1. Please indicate the category which you fall into:**

- ☐ Canadian Bioproducts Company
- ☐ Supplier of capital
- ☐ Organization providing resources and support mechanisms to Canadian Bioproducts Companies

* 2. In the past 2 years have you had the need to attract investment/access capital for your bioproducts company?

☐ Yes

☐ No

Demand for Investment Capital

* 3. In the past 2 years have you attempted to attract investment/access capital for your bioproducts company?

☐ Yes

☐ No

Experience Accessing Capital

4. Please select the statement which is most applicable to your most recent attempt to attract investment/access capital for your bioproducts company.

☐ I was not successful in attracting investment/accessing capital

☐ I was successful in attracting investment/accessing capital in the amount required from a single source

☐ I was successful in attracting investment/accessing capital in the amount required but from multiple sources

☐ I was successful in attracting investment/accessing capital but not in the amount required

☐ I am currently attempting to attract investment/access capital, result unknown

Experience Accessing Capital

5. Reflecting on your most recent experience in attracting investment/accessing capital please indicate the reason for raising capital. Select only one.

- ☐ R&D/expand R&D capacity
- ☐ Repay current investors
- ☐ Commercialize current R&D projects
- ☐ Clinical/regulatory expenses
- ☐ Develop production/manufacturing capability
- ☐ Expand/advance efficiency of production/manufacturing capacity
- ☐ Other reasons (please specify)

* 6. Reflecting on your most recent experience in attracting investment/accessing capital please indicate the **primary source of capital** (source supplying the highest percentage of your need). Select only one.

- ☐ Cash from owners
- ☐ Cash from friends and/or family
- ☐ Credit cards
- ☐ Suppliers
- ☐ Customers
- ☐ Government grants or non-repayable or conditionally repayable contributions
- ☐ Government repayable contributions
- ☐ Chartered Banks
- ☐ Credit unions
- ☐ Business Development Bank of Canada (BDC)
- ☐ Sustainable Development Technology Canada (SDTC)
- ☐ Leasing options
- ☐ Profits
- ☐ Angel investor
- ☐ Venture capital
- ☐ Joint ventures
- ☐ Licensing
- ☐ Partners
- ☐ Initial public offering
- ☐ Other (please specify)

Experience Accessing Capital

7. You indicated your primary source of capital **ascash from friends and/or family**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

8. You indicated your primary source of capital **ascash from friends and/or family**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 9. You indicated your primary source of capital **ascash from friends and/or family**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

10. You indicated your primary source of capital as **credit cards**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

11. You indicated your primary source of capital as **credit cards**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 12. You indicated your primary source of capital as **credit cards**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

13. You indicated your primary source of capital **assuppliers**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

14. You indicated your primary source of capital **assuppliers**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 15. You indicated your primary source of capital **assuppliers**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

16. You indicated your primary source of capital as **customers**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

17. You indicated your primary source of capital as **customers**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 18. You indicated your primary source of capital as **customers**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

19. You indicated your primary source of capital as **government grants or non-repayable or conditionally repayable contributions**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

20. You indicated your primary source of capital as **government grants or non-repayable or conditionally repayable contributions**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 21. You indicated your primary source of capital as **government grants or non-repayable or conditionally repayable contributions**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

22. You indicated your primary source of capital as **government repayable contributions**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

23. You indicated your primary source of capital as **government repayable contributions**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 24. You indicated your primary source of capital as **government repayable contributions**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

25. You indicated your primary source of capital as **chartered banks**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

26. You indicated your primary source of capital as **chartered banks**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 27. You indicated your primary source of capital as **chartered banks**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

28. You indicated your primary source of capital as **credit unions**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

29. You indicated your primary source of capital as **credit unions**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 30. You indicated your primary source of capital as **credit unions**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

31. You indicated your primary source of capital as **Business Development Bank of Canada (BDC)**
What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

32. You indicated your primary source of capital as **Business Development Bank of Canada (BDC)**
Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 33. You indicated your primary source of capital as **Business Development Bank of Canada (BDC)**
Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

34. You indicated your primary source of capital as **Sustainable Development Technology Canada (SDTC)**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

35. You indicated your primary source of capital as **Sustainable Development Technology Canada (SDTC)**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 36. You indicated your primary source of capital as **Sustainable Development Technology Canada (SDTC)**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

37. You indicated your primary source of capital as **leasing options**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

38. You indicated your primary source of capital as **leasing options**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 39. You indicated your primary source of capital as **leasing options**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

40. You indicated your primary source of capital as **profits**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

41. You indicated your primary source of capital as **profits**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 42. You indicated your primary source of capital as **profits**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

43. You indicated your primary source of capital as **angel investor**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

44. You indicated your primary source of capital as **angel investor**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 45. You indicated your primary source of capital as **angel investor**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

46. You indicated your primary source of capital as **venture capital**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

47. You indicated your primary source of capital as **venture capital**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 48. You indicated your primary source of capital as **venture capital**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

49. You indicated your primary source of capital as **joint ventures**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

50. You indicated your primary source of capital as **joint ventures**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 51. You indicated your primary source of capital as **joint ventures**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

52. You indicated your primary source of capital as **licensing**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

53. You indicated your primary source of capital as **licensing**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 54. You indicated your primary source of capital as **licensing**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

55. You indicated your primary source of capital as **partners**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

56. You indicated your primary source of capital as **partners**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 57. You indicated your primary source of capital as **partners**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

58. You indicated your primary source of capital as **initial public offering**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

59. You indicated your primary source of capital as **initial public offering**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 60. You indicated your primary source of capital as **initial public offering**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

61. You indicated your primary source of capital as **other financial institutions**. What source of security were you required to provide to access this source of capital. Please indicate any that apply.

- ☐ Business property
- ☐ Accounts receivable
- ☐ Inventory/assets
- ☐ Personal savings
- ☐ Personal property (e.g., second mortgage)
- ☐ Personal or business credit cards
- ☐ Business savings
- ☐ Other (please specify)

62. You indicated your primary source of capital as **other financial institutions**. Please indicate the length of time from requesting capital financing until it was received.

- ☐ 1 month or less
- ☐ 1 to 3 months
- ☐ 3 to 6 months
- ☐ 6 months to 1 year
- ☐ Over 1 year

* 63. You indicated your primary source of capital as **other financial institutions**. Please rate your level of satisfaction with the terms.

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Unsatisfied

Please provide any general comments:

* 64. Reflecting on your most recent experience in attracting investment/accessing capital please indicate any other sources of capital received. Select all that apply.

- ☐ None
- ☐ Cash from owners
- ☐ Cash from friends and/or family
- ☐ Credit cards
- ☐ Suppliers
- ☐ Customers
- ☐ Government grants or non-repayable or conditionally repayable contributions
- ☐ Government repayable contributions
- ☐ Chartered Banks
- ☐ Credit unions
- ☐ Business Development Bank of Canada (BDC)
- ☐ Sustainable Development Technology Canada (SDTC)
- ☐ Leasing options
- ☐ Profits
- ☐ Angel investor
- ☐ Venture capital
- ☐ Joint ventures
- ☐ Licensing
- ☐ Partners
- ☐ Other financial institutions (please specify)

Experience Accessing Capital

65. You indicated that your attempt to access capital was unsuccessful. Please indicate the reason(s) that your request for capital was denied. Please select all that apply.

- ☐ Product/process not sufficiently developed
- ☐ Further product development or proof of concept required
- ☐ Product line or portfolio limited in scope
- ☐ Inadequate market readiness e.g., lack of signed purchase order(s)
- ☐ Insufficient specific management skills/expertise
- ☐ Sufficient security not available
- ☐ Inadequate cash flow
- ☐ High current debt
- ☐ Poor credit history
- ☐ Lack of personal financial investment
- ☐ Lack of market research
- ☐ Lack of quality business plan
- ☐ Capital not available due to market conditions
- ☐ Lender/investor does not provide support to sector
- ☐ Lender/investor does not provide support to this type of request
- ☐ Lender/investor does not understand/lacks knowledge in this sector
- ☐ Valuation of company inflated
- ☐ Not satisfied with ownership percentage offered
- ☐ Other reason (please specify):

66. Please provide any general comments related to your unsuccessful attempt to access capital.

67. Please comment on any barriers to attracting investment/accessing capital you have experienced.

68. How do you think the barriers you experienced in attracting investment/accessing capital could be best addressed?

Becoming Investor Ready

69. Please rate the value of each of the following resources and support mechanisms in assisting your bioproducts company to be investor ready.

	Not Available to Me	Have not Used	Very Valuable	Somewhat Valuable	Not Valuable
Business Support Programs e.g., Industrial Research Assistance Program (IRAP), Export Development Canada (EDC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connection with professional advisors such as legal, accounting and human resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pitch preparation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introductions, networks, connections to potential investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitating a consortium (multiple investors funding approach)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance with market research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance with business planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incubation/Acceleration services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incubator/Accelerator space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentorship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advisory Board or Advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If 'Other' was used above, please identify resource/support mechanism:

Becoming Investor Ready

70. Please provide some specific information on the process you used to become investor ready and successfully attract investment/access capital. Note any specific resources and support mechanisms that you utilized to assist you.

Becoming Investor Ready

71. You have indicated that in the past 2 years you have had the need for, but have not attempted to attract investment/access capital for your bioproducts company. Please explain why you have not attempted to attract investment/access capital.

72. What specific resources and support mechanisms do you think would be valuable in assisting you to become investor ready and to successfully attract investment/access capital?

Demographics

To assist us in better understanding the context of the information we are receiving from Canadian Bioproduct Companies please complete the following questions.

73. Which subsector of bioproducts is most representative of your company?

- ☐ Biochemicals
- ☐ Biomaterials
- ☐ Biofuels/Biogas
- ☐ Bioenergy
- ☐ Waste management
- ☐ Crop protection products, e.g., biopesticide
- ☐ Other (please specify)

74. Which province/territory is your company located in?

75. How many employees are on your payroll? (full time equivalents)

- ☐ < 5 employees
- ☐ 5 to 25 employees
- ☐ 26 to 50 employees
- ☐ 51 to 150 employees
- ☐ >150 employees

76. Please indicate your type of entity:

- ☐ Sole Proprietorship
- ☐ Partnership
- ☐ Private Corporation
- ☐ Public Corporation

77. Please indicate your type of facility:

- ☐ Owned
- ☐ Leased
- ☐ Resident in an incubator facility
- ☐ Resident in an accelerator facility

78. At which stage of the business life cycle is your company currently?

- ☐ Development/seed stage
- ☐ Start-up stage
- ☐ Growth/survival stage
- ☐ Expansion/rapid growth stage
- ☐ Maturity stage

Consent to Future Contact

* 79. We will be selecting a few respondents for a follow up pre-scheduled telephone interview. Would you be willing to participate in a follow up pre-scheduled telephone interview to provide further detail on your experience in attracting investment/accessing capital?

- ☐ Yes
- ☐ No

Consent to Future Contact

80. If yes, please provide your contact information:

Name

Company

Email Address

Phone Number

SUPPLIER OF CAPITAL TO CANADIAN BIOPRODUCTS COMPANIES

Demand for Investment Capital

* 81. In the past 2 years have you had any requests for capital from bioproducts companies?

- ☐ Yes
- ☐ No

Demand for Investment Capital

82. Reflecting on the requests for capital from bioproducts companies that your organization has rejected please rank the factors from 1 to 17 that were key to your decision to reject the request. Rank the most important as “1” and least important as “17”.

<input type="text"/>	Product/process not sufficiently developed
<input type="text"/>	Further product development or proof of concept required
<input type="text"/>	Product line or portfolio limited in scope
<input type="text"/>	Insufficient specific management skills/expertise
<input type="text"/>	Sufficient security not available
<input type="text"/>	Inadequate cash flow
<input type="text"/>	High current debt
<input type="text"/>	Poor credit history
<input type="text"/>	Lack of personal financial investment
<input type="text"/>	Lack of market research
<input type="text"/>	Lack of quality business plan
<input type="text"/>	Capital not available due to market conditions
<input type="text"/>	Lender/investor does not provide support to sector
<input type="text"/>	Lender/investor does not provide support to this type of request
<input type="text"/>	Valuation of company inflated
<input type="text"/>	Not satisfied with ownership percentage offered
<input type="text"/>	Other reason (specify below)

83. If 'Other' was used in your ranking above, please specify:

Demand for Investment Capital

84. As an investor/lender what do you feel Canadian Bioproduct Companies could do to improve their ability to attract investment/access capital? Note any specific resources and support mechanisms that could be provided to assist them become more investor ready.

Demographics

To assist us in better understanding the context of the information we are receiving from Suppliers of Capital please complete the following questions.

85. Which of the following best describes your organization?

- ☐ Government
- ☐ Chartered Bank
- ☐ Credit Union
- ☐ Business Development Bank of Canada (BDC)
- ☐ Sustainable Development Technology Canada (SDTC)
- ☐ Venture capital company
- ☐ Other financial institution
- ☐ Other (please specify)

86. Which province/territory is your company located in?

Consent to Future Contact

* 87. We will be selecting a few respondents for a follow up pre-scheduled telephone interview. Would you be willing to participate in a follow up pre-scheduled telephone interview to provide further detail on your experience with bioproducts companies seeking investment capital?

☐ Yes

☐ No

Consent to Future Contact

88. If yes, please provide your contact information:

Name

Company

Email Address

Phone Number

ORGANIZATIONS PROVIDING RESOURCES AND SUPPORT MECHANISMS TO CANADIAN BIOPRODUCTS COMPANIES

The following questions pertain to 'Barriers to Accessing Capital'

89. Please comment on the barriers to attracting investment/accessing capital that the bioproducts companies you work with have experienced.

90. How do you think these barriers could be best addressed?

Assisting Companies to Become Investor Ready

91. Please rate the value of each of the following resources and support mechanisms in assisting a bioproducts company to be investor ready. We appreciate a response even if it is a resource or support mechanism that your organization does not currently provide.

	Not Sure	Very Valuable	Somewhat Valuable	Not Valuable
Business Support Programs e.g., Industrial Research Assistance Program (IRAP), Export Development Canada (EDC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connection with professional advisors such as legal, accounting and human resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pitch preparation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introductions, networks, connections to potential investors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitating a consortium (multiple investors funding approach)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance with market research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance with business planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incubation/Acceleration services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incubator/Accelerator space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentorship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advisory Board or Advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If 'Other' was indicated above, please identify resource/support mechanism:

92. As a provider of resources and support mechanisms what do you feel Canadian Bioproduct Companies could do to improve their ability to attract investment/access capital? Note any specific resources and support mechanisms that could be provided to assist them become more investor ready.

Demographics

To assist us in better understanding the context of the information we are receiving from providers of resources and support mechanisms please complete the following questions.

93. Which of the following resources and support mechanisms do you provide to bioproducts companies? Please select all that apply.

- ☐ Business Support Programs e.g., Industrial Research Assistance Program (IRAP), Export Development Canada (EDC)
- ☐ Connection with professional advisors such as legal, accounting and human resources
- ☐ Pitch preparation
- ☐ Introductions, networks, connections to potential investors
- ☐ Facilitating a consortium (multiple investors funding approach)
- ☐ Assistance with market research
- ☐ Incubation/Acceleration services
- ☐ Incubator/Accelerator space
- ☐ Mentorship
- ☐ Advisory Board or Advisor
- ☐ Other (please specify)

94. Which province/territory is your company located in?

Consent to Future Contact

* 95. We will be selecting a few respondents for a follow up pre-scheduled telephone interview. Would you be willing to participate in a follow up pre-scheduled telephone interview to provide further detail on your experience with supporting bioproducts companies who are seeking investment capital?

☐ Yes

☐ No

Consent to Future Contact

96. If yes, please provide your contact information:

Name

Company

Email Address

Phone Number