Alberta Enterprise Corporation

2023 Alberta Technology Deal Flow Study

May 2024

KPMG

CEO's Message

Alberta's technology and venture capital industry continues to show strength and resiliency in recent years. According to CVCA's VC Market Reports, the dollars invested into Alberta technology companies have increased by 26% from $561 million in 2021 to $707 million in 2023[1]. This growth is even more impressive when comparing it to the investment activity in Canada and the USA where dollars invested is down 52% and 51% respectively for the same period.

Further evidence of Alberta's rapid growth is represented in the five-year compound average growth rate (CAGR) for dollars invested, which sits at an impressive 49%, significantly higher than Canada's 13%. Beyond investment figures, Alberta's strength is also apparent from the number of technology companies identified in this study. The combination of these statistics paints a clear picture of a burgeoning ecosystem that has more companies attracting more capital than ever before.

Alberta Enterprise Corporation's (AEC) mission is to foster a thriving VC industry in Alberta, one that provides access to venture capital and other resources to create successful companies. Our investment strategies support home-grown VC's and bring experienced funds to the province, providing Alberta entrepreneurs with access to money, markets, and mentors. We are also committed to doing our part to ensure that the VC and technology ecosystem benefit from the measurable increase in results that arise from a diverse, equitable and inclusive organization.

It can be challenging to measure the success of a technology and startup ecosystem. While investment figures are a clear indicator, details about transactions are not always publicly shared and many companies grow and thrive without outside investment. As a result, publicly available information often falls short, lacking the depth and detail to understand the current state of the ecosystem in Alberta. To bridge this knowledge gap and to provide deeper insight into the deal flow landscape in Alberta, AEC commissioned this study to build upon the 2012, 2016, 2018 and 2021 reports. This study provides critical insights on the evolution of Alberta's technology sector, including the participants, the nature of companies, funding dynamics, founder demographics, and much more.

As the global digital economy continues to rapidly grow, it's promising to see that Alberta's deal flow is following suit with 69% of Alberta companies developing a software solution, more than any year prior. Even more promising is the rapid pace at which Alberta companies have adopted and deployed Artificial intelligence (AI) and machine learning (ML) into their product offerings, with a significant increase in the number of companies developing these solutions into their product from 36% in 2021, to 46% in 2023.

Alberta continues to raise the bar in terms of female participation as founders and co-founders, with 37% of surveyed companies saying they have one or more female founders, up from 30% in 2021; and well ahead of the global average of 31% as identified in Startup Genomes 2022 survey of nearly 5,500 companies across 67 global ecosystems[2]. It was also found that companies that achieved profitability within three years had a higher incidence of female founders.

We extend our deepest gratitude to all the contributors, partners, and organizations whose relentless efforts not only brought this study to fruition but also continuously enhance Alberta's startup and venture capital ecosystem. It is our hope that these insights prove beneficial to your endeavours, aiding your organizations in the ongoing support, funding, and scaling of promising Alberta technology companies.

Kristina Williams
President & CEO, Alberta Enterprise Corporation

[1] CVCA Market Reports, cvca.ca/research-insight/market-reports

[2] Startup Genome Female Founder Series, startupgenome.com/articles/only-15-percent-of-tech-startup-founders-are-female

AEC

Table of Contents

AEC

AEC

ΛEC

Executive Summary

The Alberta Technology Deal Flow Study (the "Study") provides the leading benchmark for measuring the health, growth and composition of the Alberta technology and innovation sector. Assessing the vitality and success of a technology startup ecosystem is a complex task. Although stories of new and thriving companies are frequently accessible, critical data such as employee growth, funding details, demographics, and specific company information often remain elusive or lack the depth required for a thorough analysis. This gap highlights the challenge in gathering the necessary information to more deeply understand how the Alberta ecosystem is performing.

The Study would not be possible without the contributions from participants in the ecosystem, including investors, founders, company executives, ecosystem supporters, and service providers who offer critical information throughout the process. As a result, the Study provides a comprehensive overview of the dynamic and ever-evolving technology and innovation ecosystem in Alberta.

As the ecosystem in Alberta continually changes, so does this Study. For 2023, the industry classification and inclusion methodologies were amended to align with venture capital industry peers and to provide a more current and refined view of the technology ecosystem in Alberta. This Study focused chiefly on companies whose primary income stream came from the sale of a novel product or service, and that required significant innovation though research and/or development efforts. Companies whose activities were limited to selling, distributing, or implementing technology-based products or services developed by others are not included in the Study.

Using the new methodology, the Study identified a total of 2,378 technology companies in Alberta, a modest increase of 62 companies or 3% when compared to the 2,316 companies identified in 2021, when the same methodology is applied across both data sets. From a geographic perspective, Calgary-based companies accounted for 63% (1,490) of the companies identified compared to Edmonton which accounted for 29% (687), and other regions in Alberta which accounted for almost 9% (201). While Calgary is slowly increasing its share of companies in the province, these figures are largely consistent with the findings from previous Studies.

The industries which companies operate within may come as a surprise, with nearly 57% operating in the Information and Communications Technology space (ICT) followed by Health and Life Sciences (12.4%), and CleanTech (10%). Over 84% of companies surveyed are selling their products or services to other businesses (B2B), with nearly 70% developing a software solution and 46% integrating AI/ML into their offerings. 72% of respondents are focused on providing clients cost savings, with business productivity and ESG being secondary and tertiary focuses. These findings highlight the breadth and strength of Alberta's contingent of innovative enterprise software companies.

While the scope of the Study is extensive, the survey results vary from year to year based upon the number of responses received by companies operating in different stages and sectors. For instance, companies appear to have less employees and lower revenues than in 2021; however, further analysis suggests this change is largely attributable to the average age of companies in the 2023 survey responses being significantly lower than in 2021. When comparing results by the age of companies rather than in aggregate some very interesting findings are uncovered. For instance, companies less than two years old are 20% more likely to have revenues in 2023 vs 2021, and they are 17% more likely to have moved from validating to scaling, as based on the Startup Commons Development Phases. These findings provide an encouraging insight, that Alberta companies founded in recent years are developing at a faster pace than their peers in previous studies.

The 2023 Alberta Technology Deal Flow Study was made possible due to input from Alberta's technology and venture capital firms and numerous organizations that make up the Alberta ecosystem. Alberta Enterprise expresses its sincere thanks to Alberta Enterprise portfolio venture capital funds, Prairies Economic Development Canada (PrairiesCan), and to all those that contributed. We're pleased to co-author the study with KPMG LLP and to leverage their expertise and their deep involvement in Alberta's tech ecosystem. We hope the study findings continue to be useful in supporting the growth of Alberta's technology sector.

Alan Campbell
Director, Industry Development, Alberta Enterprise Corporation

1

Introduction
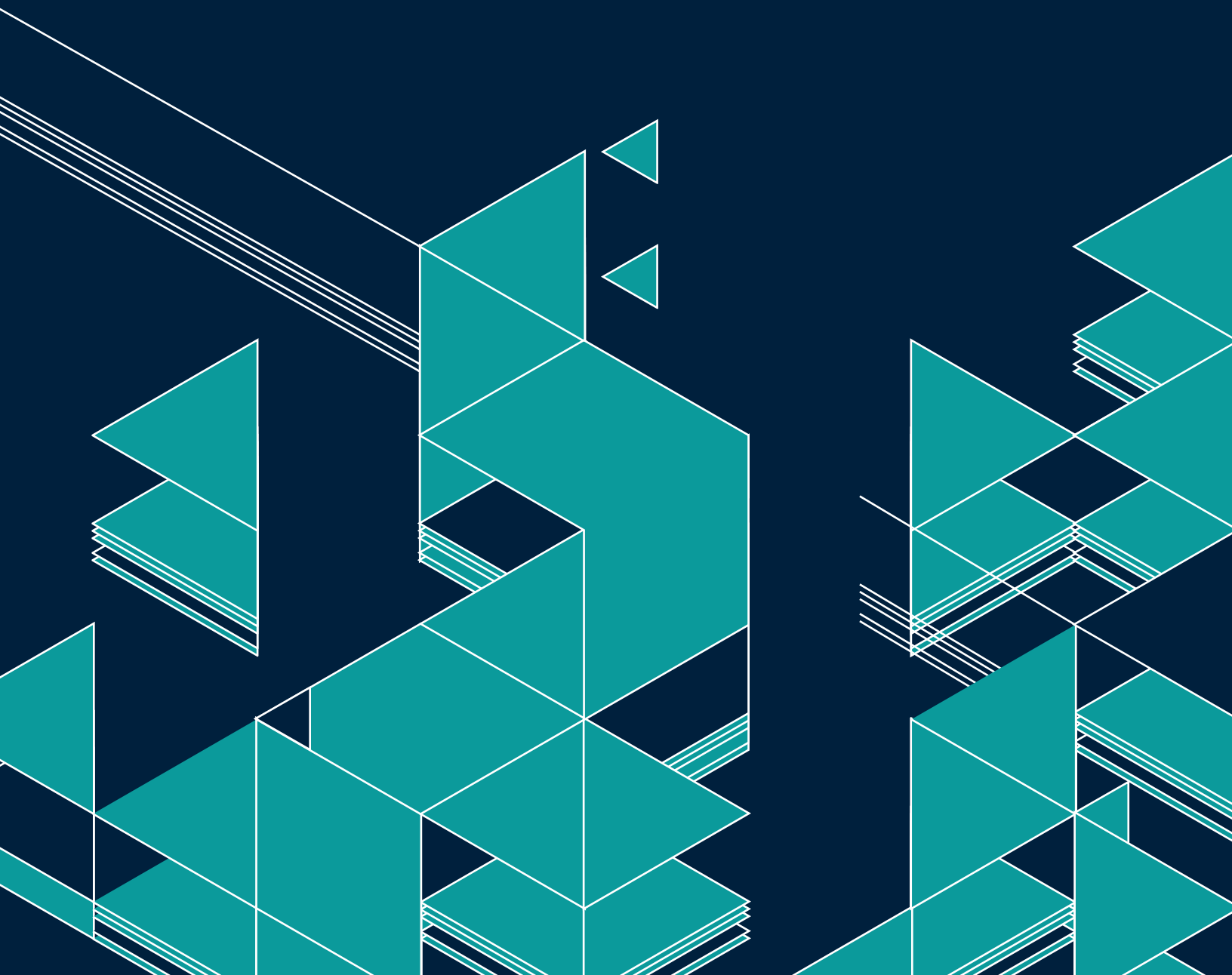
1.1 Study Background and Objectives

Alberta Enterprise Corporation ("AEC") periodically produces an Alberta Technology Deal Flow Study. This study is designed to offer key insights into the deal flows within Alberta, encompassing a broad spectrum of sectors, stages, and regions. It serves as a crucial indicator when assessing the vitality, expansion, and structural makeup of Alberta's technology and innovation landscape. The Deal Flow Study, with previous editions in 2021, 2018, 2016 and 2012, has been instrumental in capturing the evolution of the sector thanks to the collective contributions from Alberta's technology community and supportive organizations within the local ecosystem.

The main objective of AEC is to provide access to venture capital and other resources to create successful companies in Alberta, contributing to economic diversification and the development of an innovation-based economy. The insights derived from this study not only guide AEC in refining its investment strategies and industry development focus but also offer a meaningful barometer for gauging progress against past studies, thereby charting the growth trajectory and maturation of Alberta's technology industry.

For the 2023 Alberta Deal Flow Study (the "2023 Study"), more stringent inclusion criteria were used to focus on core technology-enabled companies and to better align with ecosystem partners and venture capital industry peers. The result was a concentrated list of 2,378 companies. The stricter inclusion criteria, which are explained further below in section 1.2, were also applied to the 2021 consolidated list of companies ("2021 List") to allow for better comparisons between the two Studies. The 2021 List saw a decrease of 490 companies from 2,806 to 2,316 when the updated criteria were applied. By applying the same criteria and methodology to the previous study's list of companies in 2021, the report shows continued growth in the sector with a more refined lens, is more aligned with industry peers, and will provide a strong foundation for future reports.

For the 2023 study, KPMG LLP ("KPMG") was commissioned by AEC to undertake this analysis, aiming to further illuminate the pathways and progress within Alberta's technology sector.

1.2 Approach Overview

The methodology for the 2023 Alberta Technology Deal Flow Study unfolds in a structured five-stage process, described below. This comprehensive approach ensures a robust analysis and accurate representation of Alberta's technology sector landscape, reflecting its dynamism and growth. A further detailed explanation on the study's methodology can be found in Appendix B: Detailed Approach and Methodology.

Stage 1 - Defining Scope and Criteria

The journey begins with a clear definition of the study's scope, focusing on a broad spectrum of sectors. This foundational stage establishes the boundaries of the analysis, encompassing companies that are Technology Driven (Appendix A), delivering products or providing services based on technology that require research and/or development efforts from those companies. Companies that only resell or distribute products manufactured by others or provide professional services using or implementing technology developed by others are not included in the list.

For the purposes of the 2023 Report, KPMG was instructed by AEC to use the Canadian Venture Capital & Private Equity Association's (CVCA) classification system and "Tech Tags" as a guide to categorize the identified companies into sectors and sub-sectors with additional identifiers commonly used in the technology ecosystem. Sectors include Information and Communication Technology, Agribusiness, CleanTech, Health and Life Sciences, Energy and Mining, Industrial and Manufacturing, Business Products and Services and Other Technology Products or Services. Read more about CVCA's classification system and "Tech Tags" in Appendix A.

Stage 2 – Data Collection

This stage involved compiling a comprehensive list of potential technology companies. KPMG and AEC engaged with over 34 data sources and organizations who participated by confidentially providing lists of technology and innovation companies which included multiple data points. In total, over 15,000 records were collected. The list of sources used can be found in Appendix D.

Stage 3 – Screening and Verification of Companies

Companies fitting the study's criteria were meticulously verified, focusing on:

- Removing duplications
- Being based in Alberta
- Offering a Technology Driven product or service

For each of the technology companies identified in Step 2, KPMG applied a screening methodology to identify any companies who should be removed from the population while sequentially assigning a primary sector and sub-sector classification.

Companies that did not have significant operations in Alberta were excluded from the list. KPMG utilized various sources to determine the location of the companies' employees to make this assessment.

For companies who did not have a disclosed city within the data initially collected, KPMG developed and implemented custom scripting solutions to collect and verify the companies' headquarters.

In refining the criteria used in 2021, a narrower view was taken when assessing a company's technology offering. Specifically, the following were scrutinized and removed from the 2023 List of Alberta Technology Companies if they did not meet the definition of Technology Driven:

- Engineering firms - who are not developing intellectual property
- Consulting firms - accounting, law, IT, management consulting, environmental consulting, etc.
- IT service companies - who are not developing software or applications
- Digital marketing companies or agencies
- Energy services - who are not developing innovative or clean technology

- Manufacturing companies - primarily focused on traditional manufacturing processes without a significant emphasis on developing or integrating innovative technologies into their products or operations
- Retail, resale and/or distribution businesses

Additionally, through the screening process KPMG employed a variety of approaches to identify companies that were no longer in operation.

Unlike the 2021 Study, public companies were not removed from the list. While the objective of the 2023 Study is to provide relevant information to AEC and other early-stage investors, the inclusion of public companies provides additional insights into the development and maturity of the ecosystem in the province. For the same reason, companies that have been acquired by out-of-province companies but continue to have a significant presence in the province continue to be included.

Figure 1: Illustrative Change in Methodology Over Prior Year

- ● ICT (Information and Communication Technology)
- ● Health and Life Sciences
- ● Business Products and Services
- ● CleanTech
- ● Industrial and Manufacturing
- ● Other
- ● Agribusiness
- ● Energy and Mining
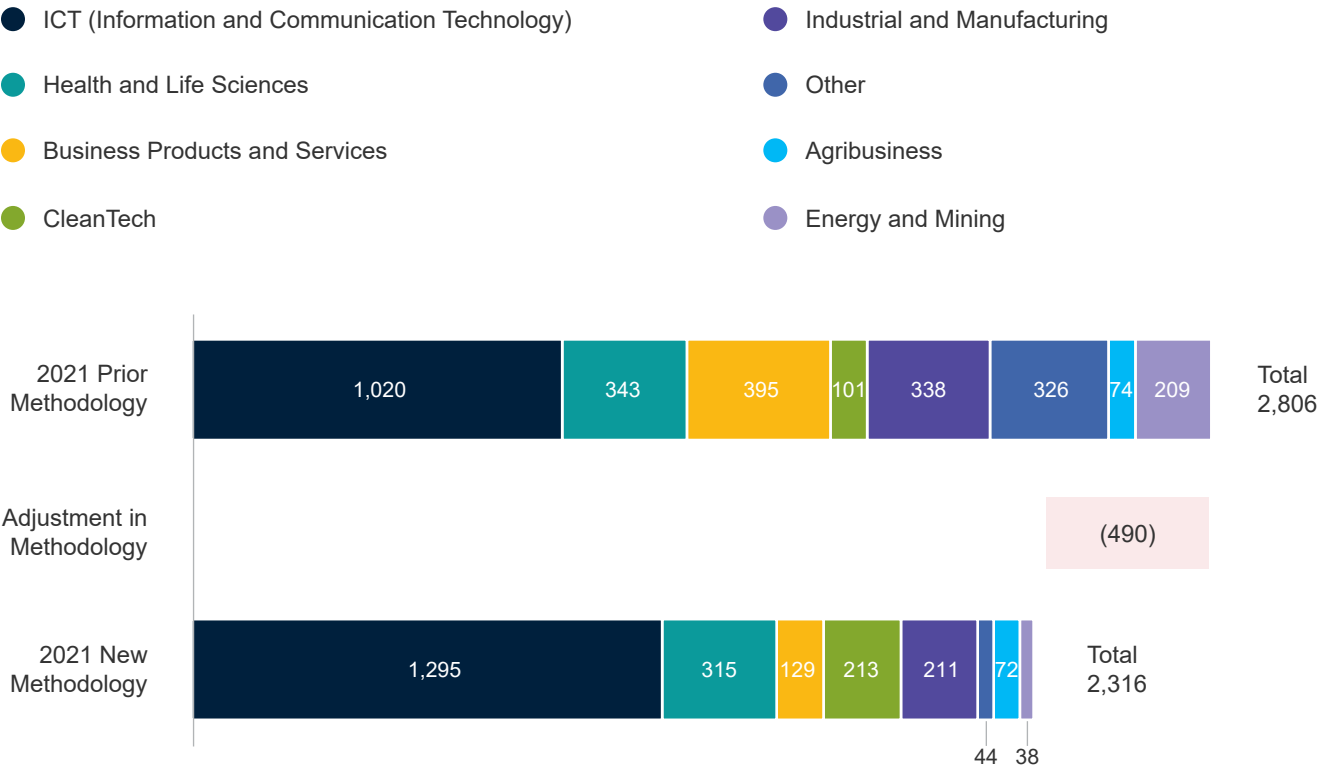
Source: 2021 AEC Deal Flow Study

Stage 4 - In-depth Survey of Alberta-based Technology Companies

A comprehensive survey was created by KPMG and distributed to technology sector companies in Alberta through a network of over 26 participating organizations and associations, advertised through social media, paid and earned media, email databases, and shared by various technology sector leaders and supporters.

The survey had a range of questions (Appendix F) and were broken down into the following categories:

Industry Segmentation, Company Data, Fundraising, and Other. A total of 42 questions, plus 5 follow-ups, and 7 questions specifically for health and life sciences companies, were asked in the survey.

Just under 300 surveys were received, and 264 sector-specific companies were identified and used to contribute to the report's findings. A thorough analysis and application of the CVCA Industry Sector classification was used to ensure the report included the most relevant technology companies.

Stage 5 - Analysis and Presentation of Data

The final stage involved a detailed analysis of the collected data, culminating in the presentation of findings. This phase included an analysis of the increase in technology companies in the province, the changes in the sector geographically, learnings through comparison from previous reports, analysis of the survey results, and comparison of the survey with researched and collected data. It is important to note that the average time since a startup was founded is lower than in the previous report, 5 years in 2023, compared to 9 years in 2021, and therefore results may have a bias to younger companies and not reflective of the entire ecosystem.

Through rigorous analysis, the study presents a clear and comprehensive view of the progress and challenges faced by Alberta's technology industry, providing valuable insights to stakeholders and contributing to the ongoing dialogue on innovation and growth within the province.

This structured approach, detailed in the study's methodology, underscores AEC and KPMG's commitment to delivering insightful and actionable intelligence, fostering a deeper understanding of Alberta's vibrant technology ecosystem.

All data collected, including monetary figures, are reported in Canadian dollars, and percentages are simplified to facilitate understanding. All data was kept confidential and only aggregated information is presented in this report.

Figure 2: Identified Technology Companies and Survey Respondents by City

Headquarters Location	Identified Technology Companies		Companies Who Completed Online Survey	
Calgary	1,490	62.7%	184	69.7%
Edmonton	687	28.9%	70	26.5%
Other Alberta	201	8.5%	10	3.8%
Total	2,378		264	

2

Alberta's Technology Sector
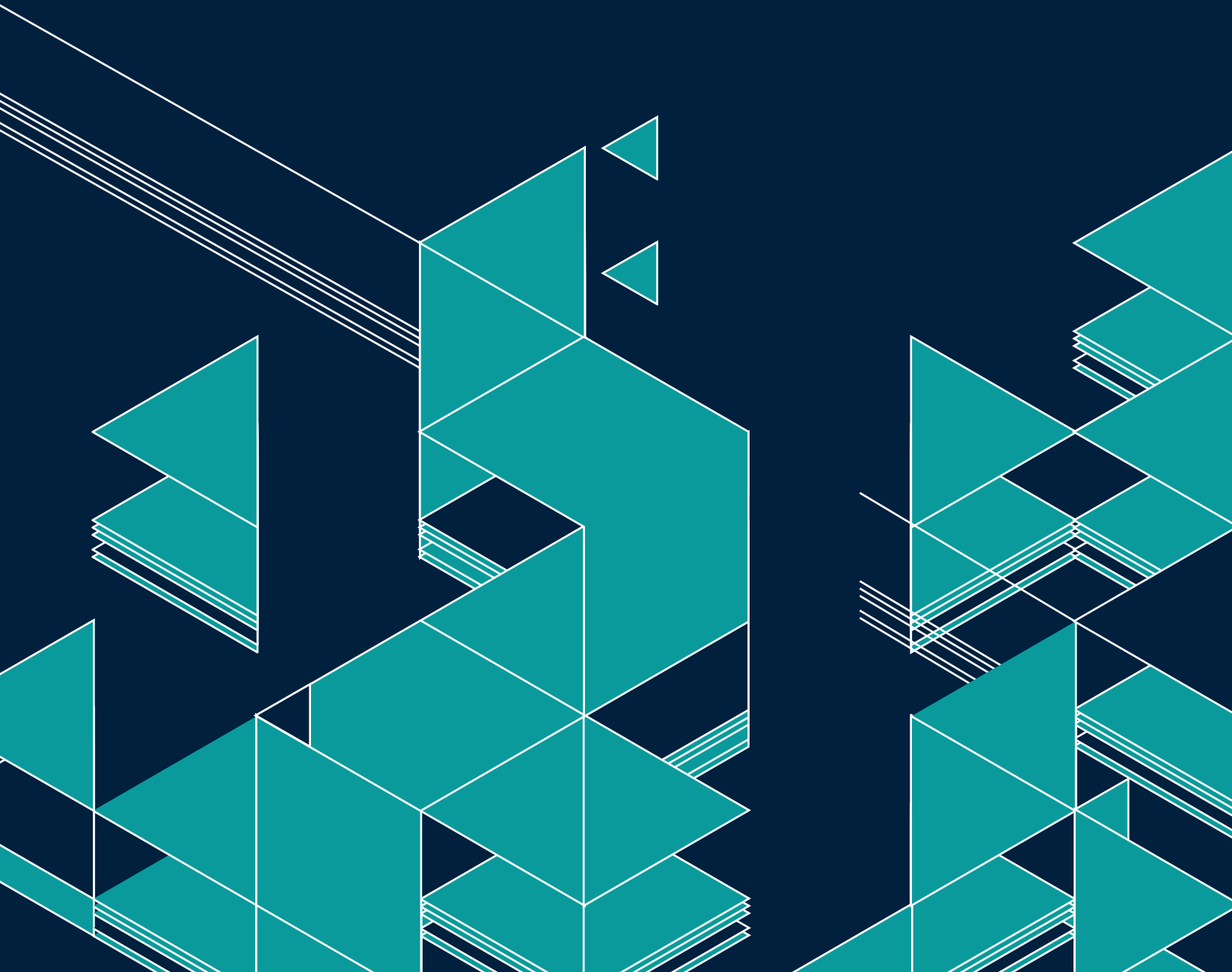
This section offers a summary of Alberta's technology sector, covering both the industry and regional distribution of the companies identified.

2.1 Overview of Alberta's Technology Ecosystem in 2023

Based on the methodology described in Section 1, **2,378** technology companies were identified in Alberta at the end of 2023 ("Identified Companies"). The subsequent sections provide a summary of information and statistics regarding the Identified Technology Companies.

2.2 Trends Over Time

Analysis of the underlying information shows that 370 or 15% of the Identified Companies were not included in the 2021 list, suggesting a continued creation of new technology–based companies in Alberta.

Conversely, 308 companies or 13% of the Identified Companies in 2021 are no longer included in the 2023 list. This high number of companies that no longer exist should not be unexpected, as according to Startup Genome more than 90% of startups fail within the first five years[3]. While no further analysis has been performed, it should be expected that the reduced availability of capital has impacted the number of companies that no longer exist. Additionally, movements in the number of companies being closed will trail the number of new companies, and therefore the increase in the number of new companies in the period 2019 to 2021 is now impacting the number of companies who have closed their business.

On a net basis, the increase in Identified Companies between 2021 and 2023 is 62 companies (3%), as reflected in Figure 3.

Please see Appendix C for more information on Study Considerations.

Figure 3: Number of Identified Companies by Year and Industry Classification 2021 vs 2023

- ● ICT (Information and Communication Technology)
- ● Health and Life Sciences
- ● Business Products and Services
- ● CleanTech
- ● Industrial and Manufacturing
- ● Other
- ● Agribusiness
- ● Energy and Mining
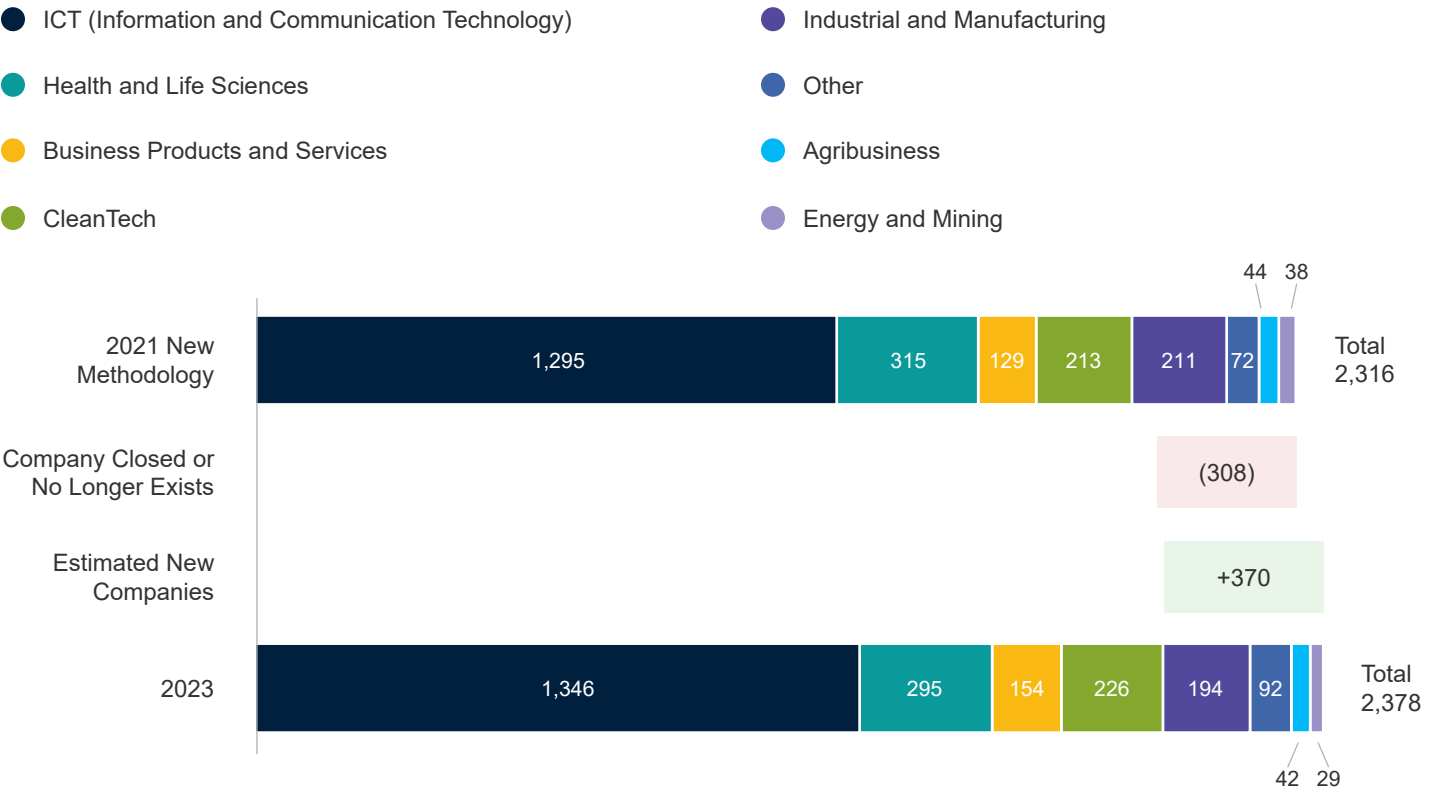
Source: AEC DFS 2023 & AEC DFS 2021

Note: Industry classifications used in 2023 have been mapped to the companies identified in 2021 using the new criteria based on professional judgement analysis for their comparability to the previous NAICS codes used. Mapping will change from year to year due to application of CVCA classification applied against the historical list which is inherently open to interpretation.

---

[3] *The State of the Global Startup Economy,* startupgenome.com/article/the-state-of-the-global-startup-economy

Figure 4: Number of Identified Companies by Year and Headquarters Location

The location of companies between Calgary, Edmonton and other Alberta municipalities has remained largely consistent from the 2021 to 2023 report, with Calgary seeing an increase of 4%, Edmonton a decrease of 3%, and other Alberta seeing a decrease of 1%.

Over a longer period, the proportion of companies based in Edmonton, as a percentage of the total number of companies in Alberta, has decreased. Conversely, the number of companies headquartered in Calgary and other Alberta locations has increased.

● Calgary   ● Edmonton   ● Other Alberta

	2012	2016	2018	2020	2023
Calgary	59%	62%	62%	58.7%	62.7%
Edmonton	36%	34%	32%	32%	28.9%
Other Alberta	5%	5%	6%	9.4%	8.4%
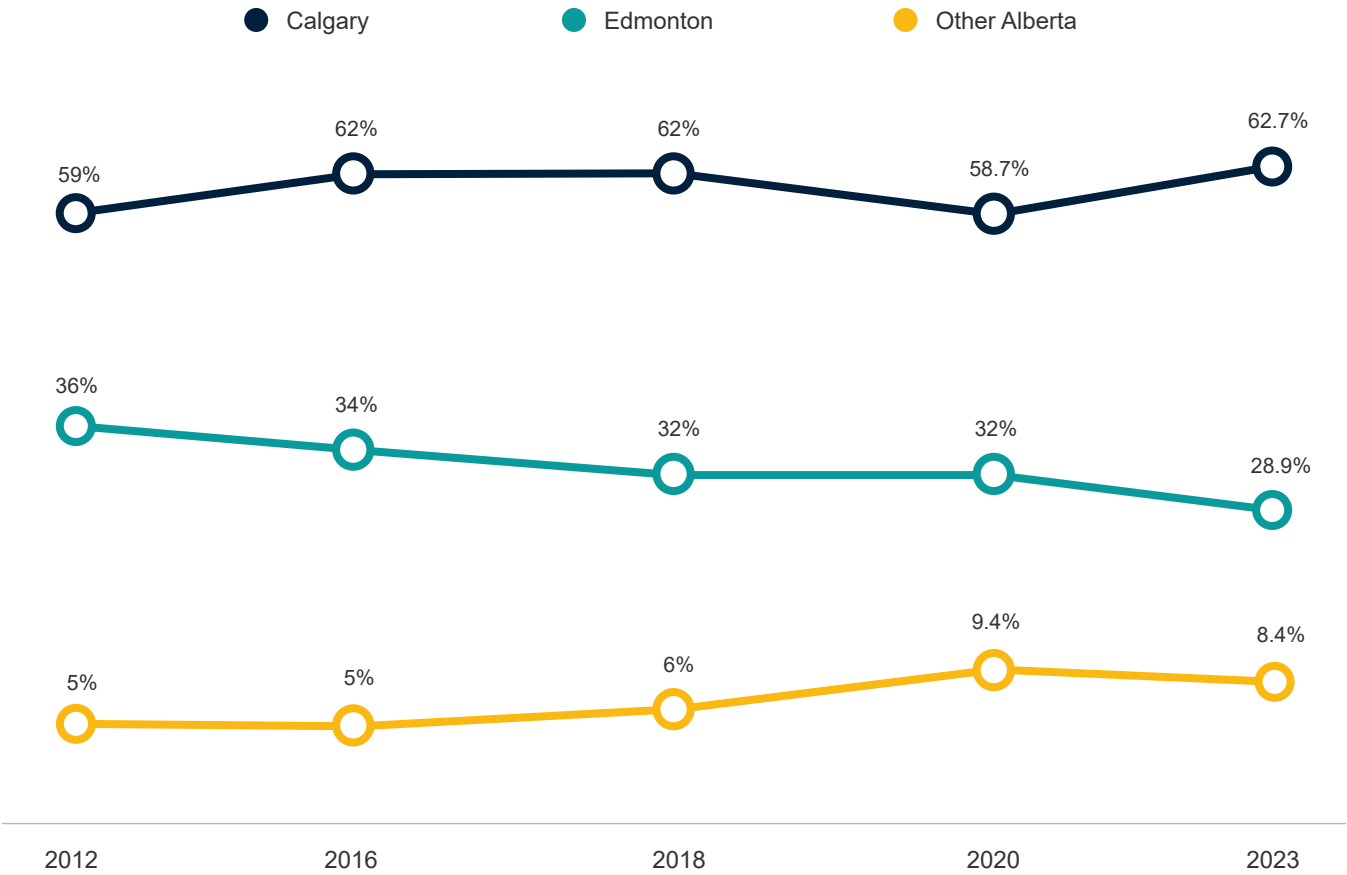
Source: AEC DFS 2023 & AEC DFS 2021; may not total to 100% due to rounding.

2.3 Regional Breakdown

Most of the Identified Companies are in either Calgary or Edmonton, and together these two cities account for nearly 92% of all Identified Companies on the list. 'Other Alberta' is home to over 8% of the total Identified companies, or 201 companies. These 201 companies are located throughout Alberta and not concentrated in one region.

57% of Identified Companies in Alberta operate in the Information and Communications Technology (ICT) sector. Health and Life Sciences was the second most common representing over 12% followed by CleanTech at 10%. Generally, the location of companies by industry is aligned with the general location split. Exceptions are Health and Life Sciences, where Edmonton has a relatively larger share of companies, and Agribusiness, and Industrial and Manufacturing, where Other Alberta has a relatively larger share.

Figure 5: Regional Breakdown and Top Industries

Other Alberta
201 companies

8.5%

46% Information & Communication Technology
16% Industrial & Manufacturing
11% CleanTech

Edmonton
687 companies

28.9%

55% Information & Communication Technology
18% Health & Life Sciences
10% Industrial & Manufacturing

Calgary
1,490 companies

62.7%

59% Information & Communication Technology
11% CleanTech
10% Health & Life Sciences
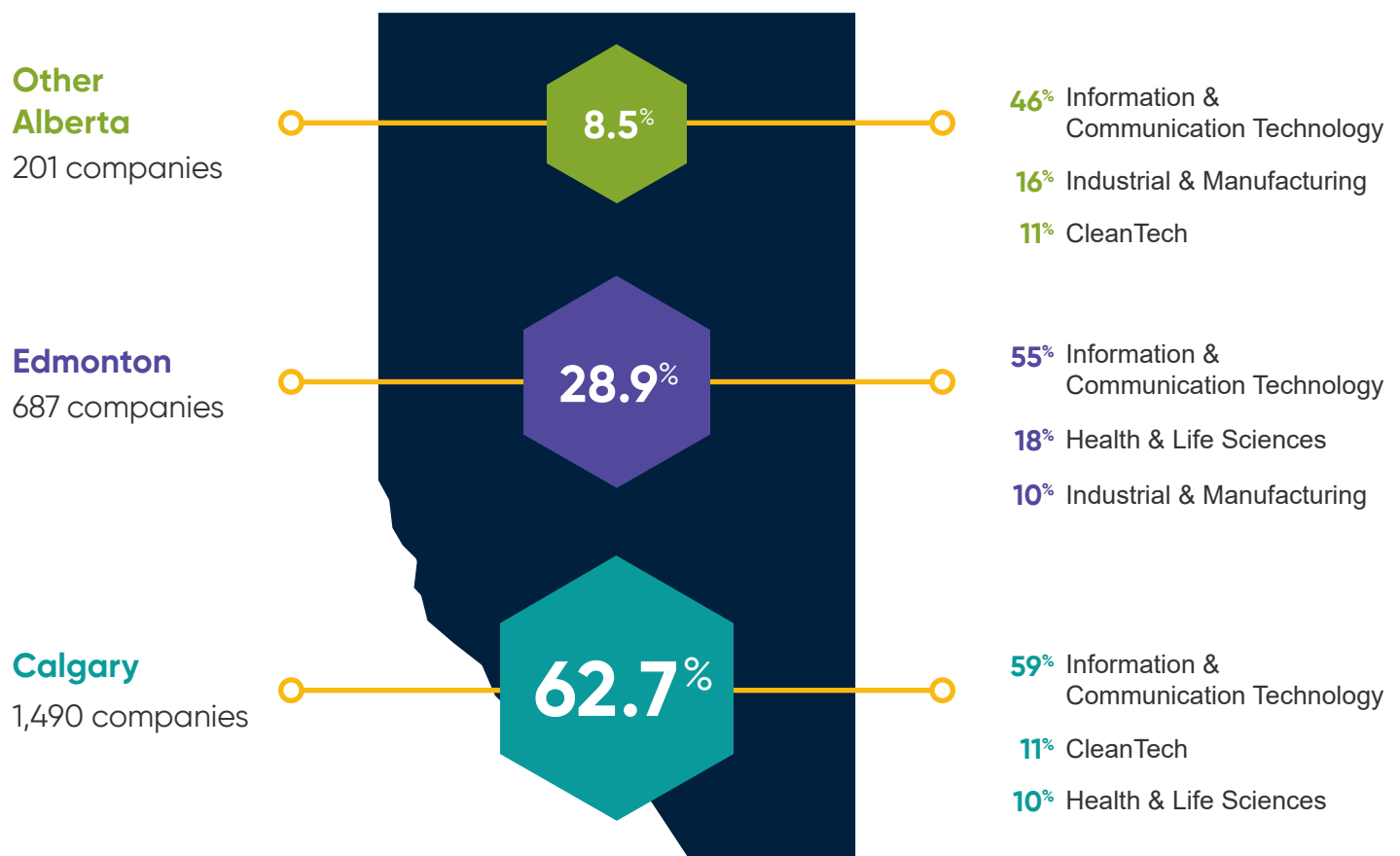
Source: AEC DFS 2023 Technology Company List

Figure 6: Number of Identified Companies by Industry Classification and Headquarters Location

Company Breakdown	Calgary		Edmonton		Other		Total	
	#	%	#	%	#	%	#	%
ICT (Information and Communication Technology)	873	36.7%	380	16%	93	3.9%	1,346	56.6%
CleanTech	161	6.8%	42	1.8%	23	1.0%	226	9.5%
Health and Life Sciences	152	6.4%	124	5.2%	19	0.8%	295	12.4%
Business Products and Services	111	4.7%	34	1.4%	9	0.4%	154	6.5%
Industrial and Manufacturing	96	4.0%	66	2.8%	32	1.3%	194	8.2%
Agribusiness	53	2.2%	22	0.9%	17	0.7%	92	3.9%
Energy and Mining	26	1.1%	0	0.0%	3	0.1%	29	1.2%
Other	18	0.8%	19	0.8%	5	0.25	42	1.8%
Total	**1,490**	**62.7%**	**687**	**28.9%**	**201**	**8.5%**	**2,378**	**100%**

Source: AEC DFS 2023

2.4 Industry breakdown

Most of the identified companies operate in the Information and Communications Technology (ICT) industry, which accounts for 57% of all companies, followed by Health and Life Sciences at 12% and CleanTech at 10%.

Figure 7: Percentage of Identified Companies by Summary Industry Classification

The following shows the classification of these companies by CVCA Industry Sector classification.

- ICT (Information and Communication Technology) — 56.6%
- Health and Life Sciences — 12.4%
- CleanTech — 9.5%
- Industrial and Manufacturing — 8.2%
- Business Products and Services — 6.5%
- Agribusiness — 3.9%
- Other — 1.8%
- Energy and Mining — 1.2%
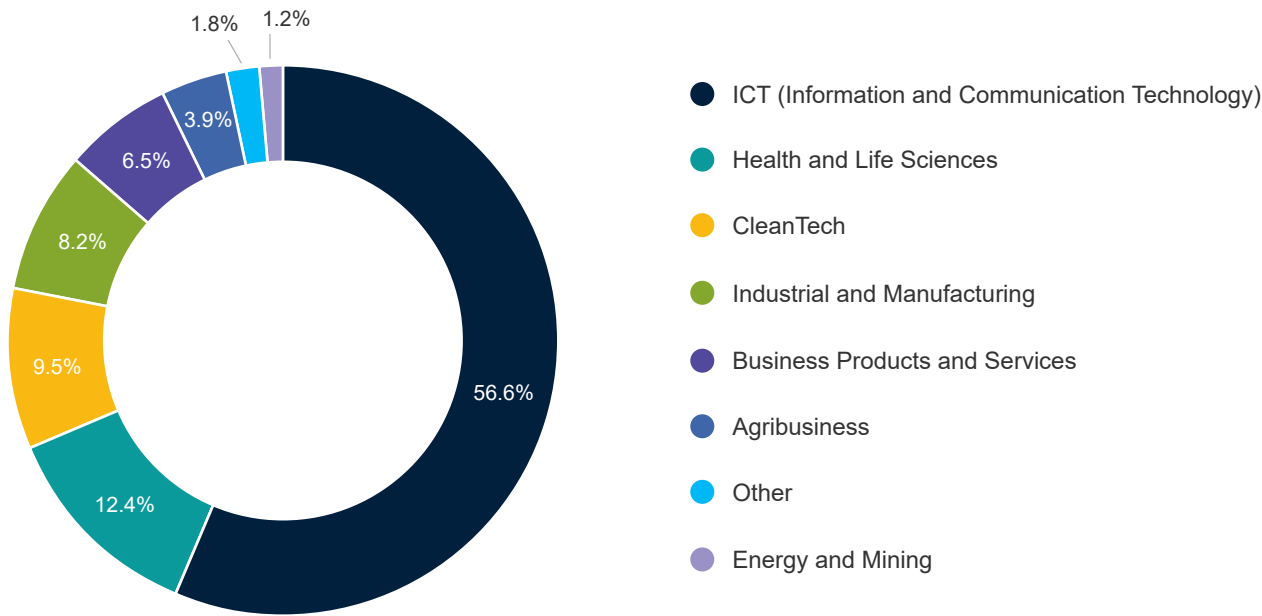
Source: AEC DFS 2023

Each summary industry classification comprises multiple sub-industries. The following figures show the number of companies by sub-industry classification.

Figure 8: Percentage of Identified Companies by Sub-Industry Within Each Industry Classification

Agribusiness

- Advanced Agriculture — 58.7%
- Food & Beverage — 29.3%
- Greenhouses — 7.6%
- Forestry — 4.3%

Business Products and Services

- Other Business Products & Services — 36.1%
- Consulting & Outsourcing — 35.6%
- Advertising, Marketing & PR — 7.7%

CleanTech

- Energy Efficiency — 56.6%
- BioFuels — 19%
- Other Clean Technology — 11.1%
- Solar Power — 10.2%
- Fuel Cell & Other Electric Technology — 1.8%
- Emissions Reduction — 1.3%

Energy and Mining

- Oil & Gas Equipment — 69%
- Energy – Oil & Gas Services — 17.2%
- Oil & Gas — 10.3%
- Mining — 3.4%

ICT (Information and Communication Technology)

- Internet Software and Services, SaaS — 89.8%
- Computer Hardware & Services — 5.1%
- eCommerce — 4.1%
- Video Game Studio — 1%

Other

- Other Services — 71.4%
- CPG — 21.4%
- Automotive & Transportation — 7.1%

Health & Life Sciences

- Medical Device & Equipment — 46.8%
- Diagnostics — 28.8%
- Drug Disorder — 21%
- Health Technology — 3.4%

Source: AEC DFS 2023

While the sub-industry classifications allow for Identified Companies to be categorized in a clear manner, the diverse nature of the technology sector in Alberta, results in certain sub-industry groups to include a broad variety of business. This is especially relevant for the "Other" sub-industry classifications, which represents significant parts of the Business Products and Services, CleanTech and Other industry groups.

The Other Business Products & Services sector includes diverse services essential for business operations. It covers businesses involved in hardware manufacturing, real estate, retail, transportation and logistics, R&D, and data analysis.

The Other Clean Technology sector includes clean technologies related to water purification, and entities active in wind and geothermal energy.

The Other Services tag includes a diverse range of entities, from those offering education services such as online learning, to specialists in fields like interior design and photography.

Additionally, many Alberta technology companies are active in software. These companies develop solutions to support a wide variety of industries and customers, including oil and gas, transportation, manufacturing, professional services, using a broad array of applications, including social media, online advertising, streaming, cybersecurity, data analytics, FinTech, accounting & finance platforms, and more.

2.5 2023 New Company Analysis

The 2023 DFS identified 370 companies under the new methodology. The largest proponent of this increase came from ICT companies at 56%, with Health and Life Sciences and CleanTech being the next largest categories.

Figure 9: Breakdown of New Companies Identified Total

Legend:
- ICT (Information and Communication Technology)
- Health and Life Sciences
- CleanTech
- Business Products and Services
- Industrial and Manufacturing
- Agribusiness
- Other
- Energy and Mining

Values: 55.6%, 10.9%, 9.9%, 7.3%, 5.9%, 4.6%, 4.5%, 1.4%
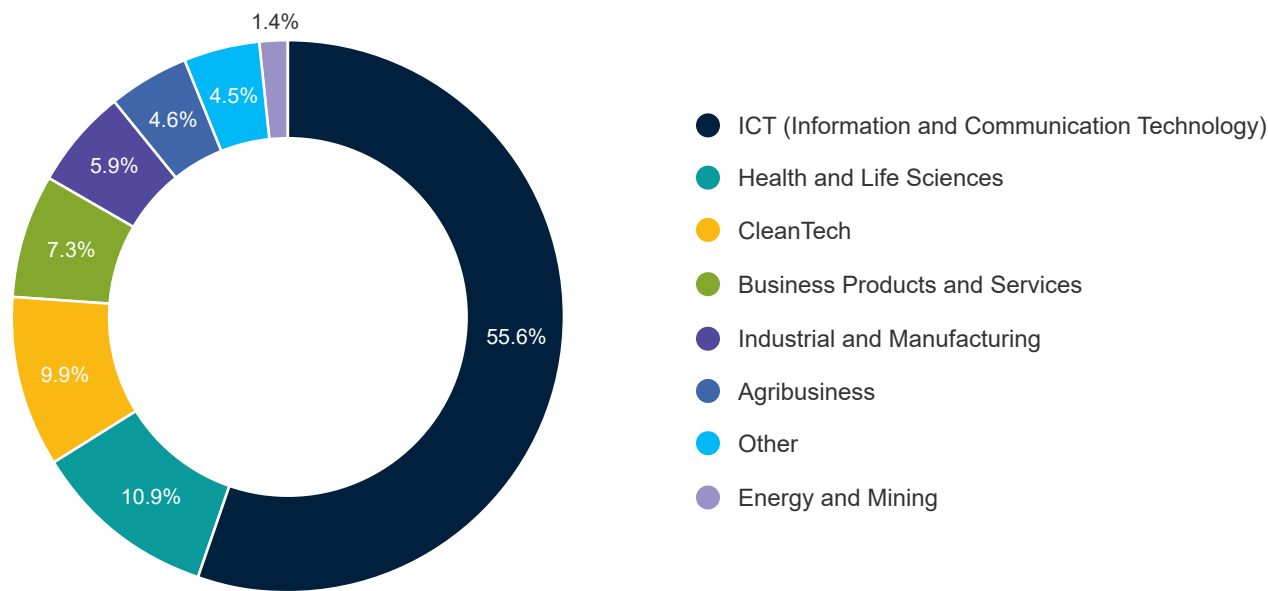
Source: AEC DFS 2023

Figure 10: Breakdown of New Companies by Location

Based on the new companies identified from 2021 to 2023, over 65% of those companies are headquartered in Calgary, with 24% located in Edmonton. This is consistent with the trend of the split by headquarter location we have seen in the last several DFS reports.

Calgary	Edmonton	Other
66.7%	24%	9.3%
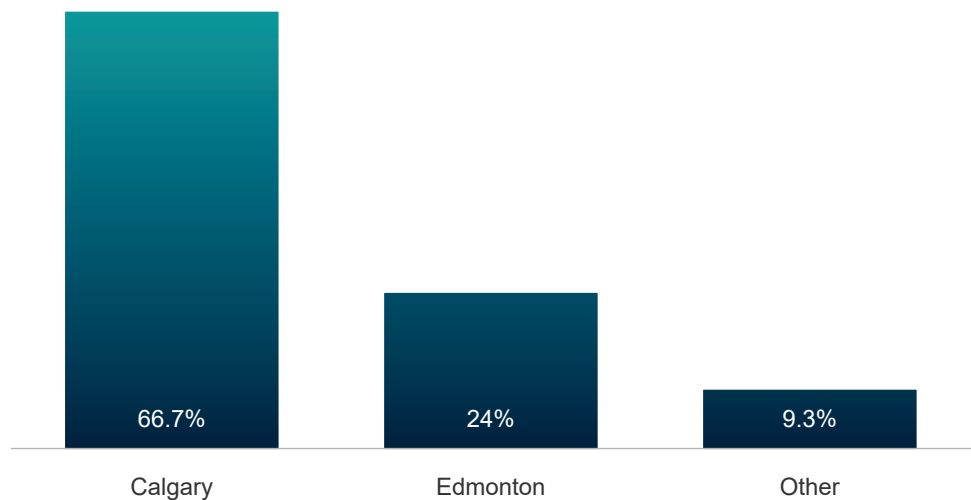
Source: AEC DFS 2023

Figure 11: Breakdown of New Companies Identified in Calgary

The majority of the new companies identified in Calgary are in ICT (57%). CleanTech, Health and Life Sciences, and Business Product and Services, are also primary contributors (11%, 9% and 8% respectively).

Legend:
- ICT (Information and Communication Technology)
- Health and Life Sciences
- CleanTech
- Business Products and Services
- Industrial and Manufacturing
- Agribusiness
- Other
- Energy and Mining

Values: 57.1%, 9.3%, 10.9%, 8.3%, 4.5%, 4.1%, 4.4%, 1.4%
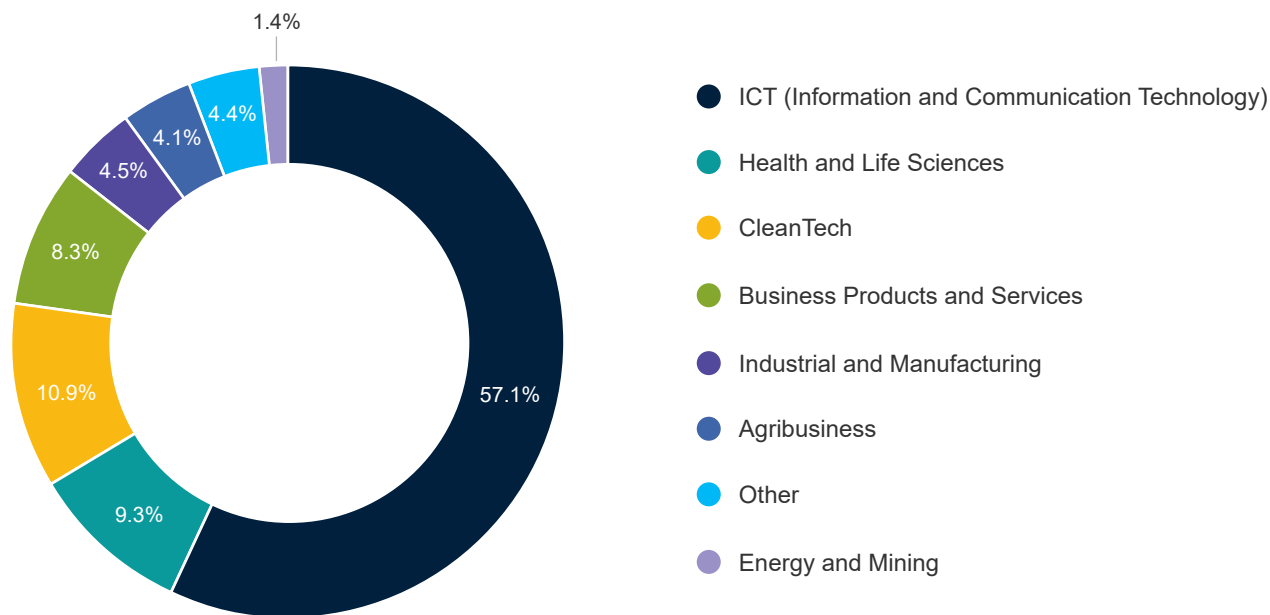
Source AEC DFS 2023

Figure 12: Breakdown of New Companies Identified in Edmonton
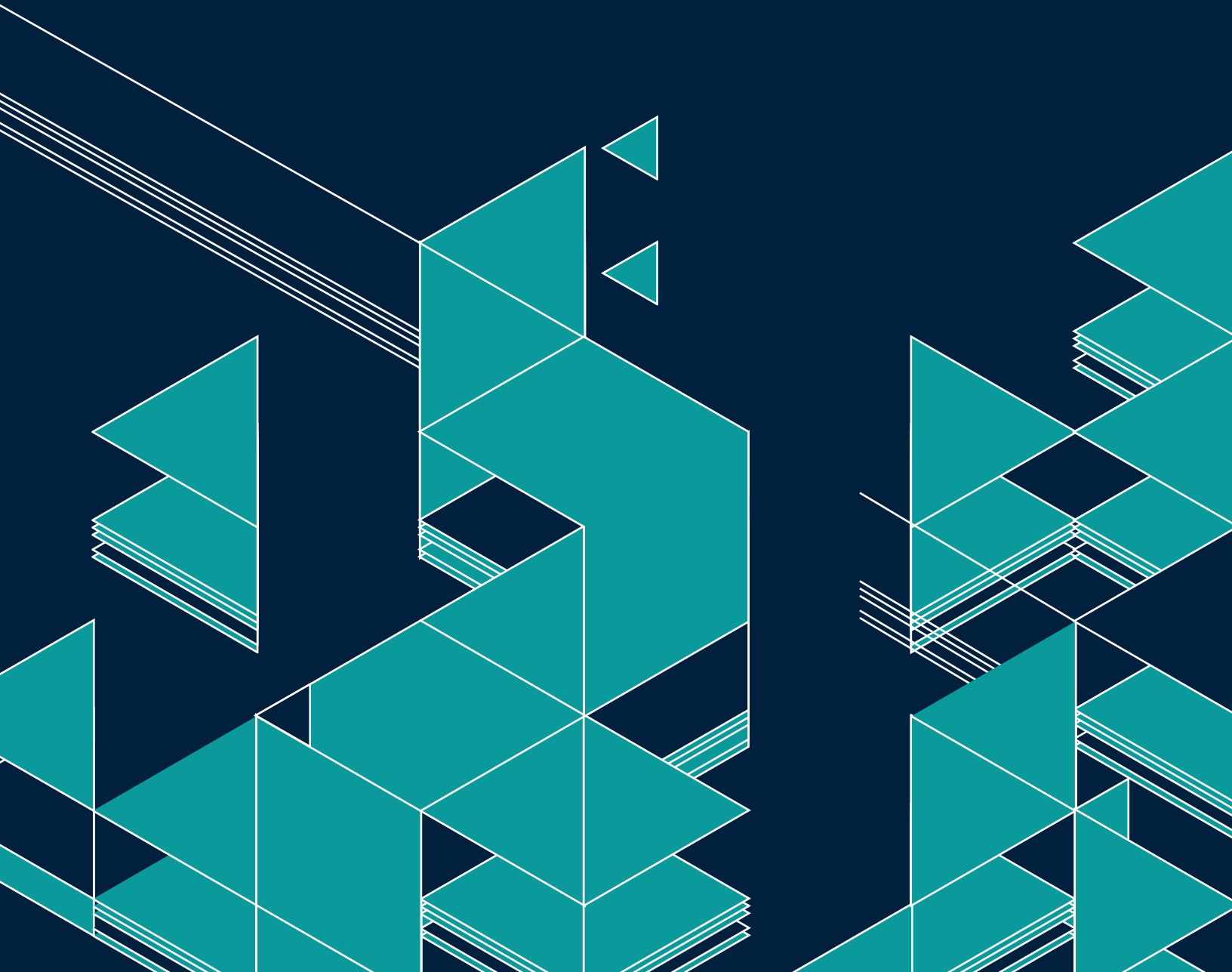
For new companies identified in the Edmonton region, consistent with the Calgary region, the majority of new companies are in the ICT sector (55%). Health and Life Sciences is 16% of the total new companies, which is 6% higher than in Calgary.

Legend:
- ICT (Information and Communication Technology)
- Health and Life Sciences
- CleanTech
- Business Products and Services
- Industrial and Manufacturing
- Agribusiness
- Other
- Energy and Mining

Values: 54.7%, 15.8%, 7.9%, 5.8%, 6.8%, 3.6%, 4.7%, 0.7%
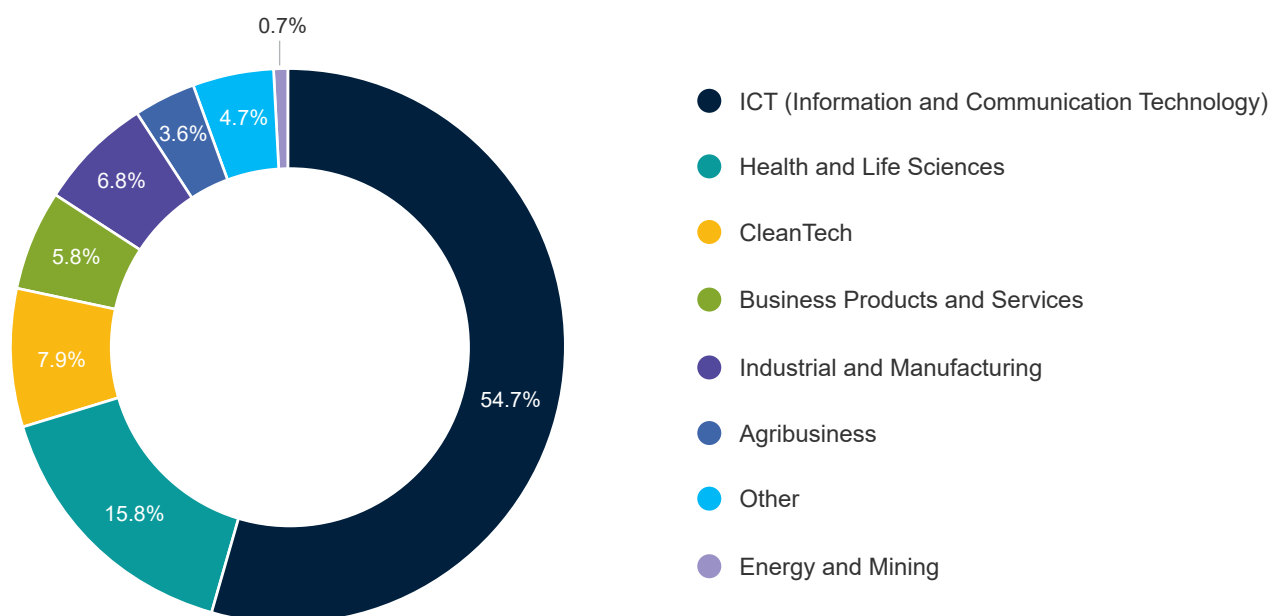
Source AEC DFS 2023

3

Technology Founders and Employees

3.1 Overview

The company information presented in this overview and section is derived from the detailed survey responses collected for the study.

The average founder age is between 41 and 50 years while 33% of founders are between 31 and 40.

85% of companies have between one and three founders, and 86% have fewer than 25 employees.

69% of founders have technical backgrounds.

56% of founders have previous experience in establishing a startup.

37% of surveyed companies have at least one founder who identifies as female.

39% of startups have at least one founder who identifies as a visible minority, 3% identify as indigenous, and 8% identified as 2SLGBTQIA+.

3.2 Survey respondents

For the 2023 DFS Survey, a total of 264 surveys were used after identifying technology companies in accordance with the criteria discussed in Section 1. In 2021, the responses of ~300 technology companies were included in the survey results. A key difference was the age of the companies, with the average time since the company was founded being 5 years in 2023, compared to 9 years in 2021.

Figure 13: Average Age of Companies 2021 vs 2023

Age of Company (Years)
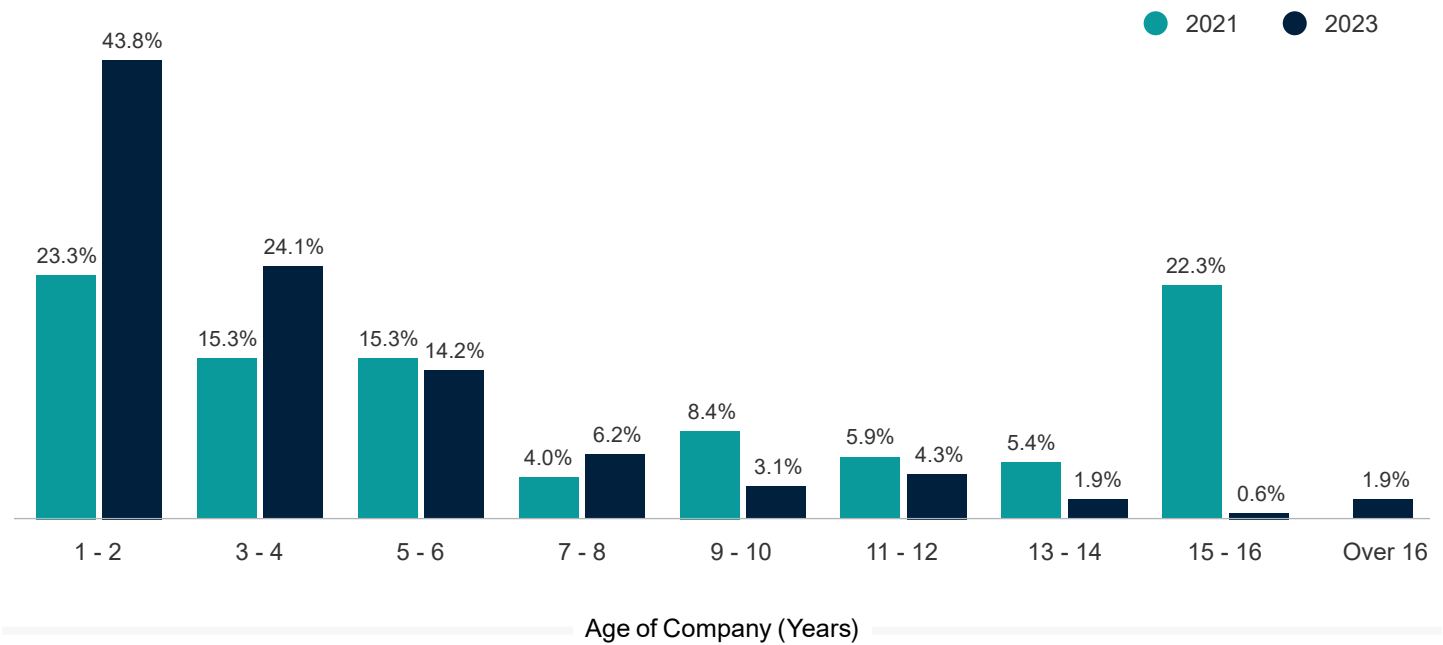
Source AEC DFS 2023

3.3 Founders

Figure 14: Average Age of Founders 2021 vs 2023

The average estimated age of founders is 42 years, similar to the 2021 survey of 43 years. More than 55% of all founders are older than 40.

	2021	2023
Less than 20 years	0.6%	0.4%
20 - 30	5.5%	9.5%
31 - 40	27.8%	33%
41 - 50	30.4%	37.9%
51 - 60	20.9%	15.9%
61 - 70	10.3%	3.4%
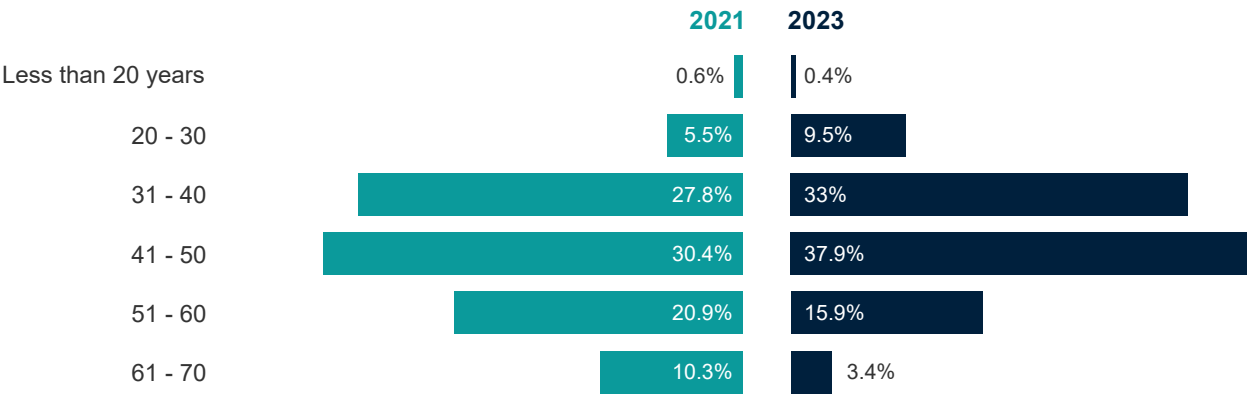
Source: 2021 AEC DFS and 2023 AEC DFS Survey

Most companies continue to have two or three founders. Consistent with 2021 survey results, few companies had five or more founders.

Figure 15: Number of Founders

Legend	2021	2023
● One	22%	30%
● Two	41%	40%
● Three	22%	16%
● Four	9%	11%
● Five or more	5%	3%
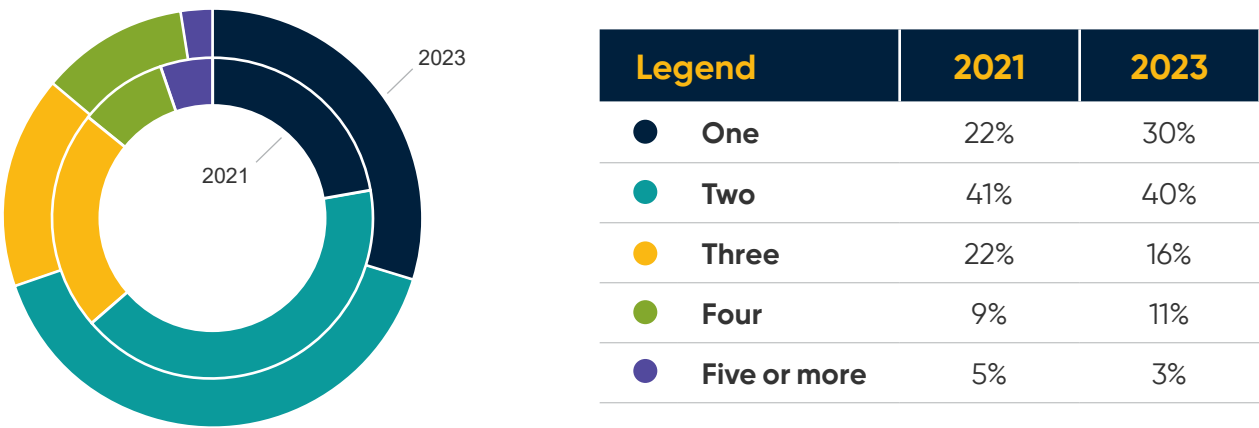
Source: 2021 AEC DFS and 2023 AEC DFS Survey

Figure 16: Founders' Technical Background and Previous Startup Experience

Technical and previous startup experience is common among founders with 69% of responses indicating at least one founder has a background in their industry, and 56% of the respondents having at least one founder with previous experience in a startup. Founders with previous startup experience and no technical experience have a 10% increased likelihood of having greater than 1 million CAD raised in funding to date when compared to founders with technical experience and no previous startup experience (43% vs 33%). When looking at founders with both technical and previous startup experience, they are 6% more likely to have raised greater than 1 million when compared to founders with just technical experience (39% vs 33%) and 4% less likely when compared to founders with just previous startup experience (39% vs 43%). This shows that previous startup experience is one of the most important drivers of funding success.

Has a technical background in your industry? **68.9%**

Has previous experience in a startup? **56.1%**
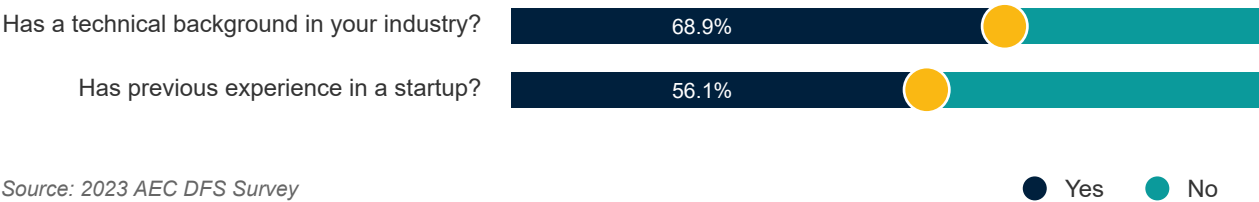
Source: 2023 AEC DFS Survey

● Yes ● No

37% of survey respondents indicated they have at least one female founder, which is a 10% increase from the 2021 study where 27% of survey respondents had at least one female founder.

Figure 17: Founders' Demographics

The survey findings suggest that recent immigrants form an average share of the population of founders, considering 14% of the companies has a recent immigrant as one of its founders, while recent immigrants to Alberta represent approximately 15% . 8% of founders identify as 2SLGBTQIA+, while those who identify as an indigenous founder represent 3%, which is lower than the average indigenous-identified person in Alberta. Visible minorities are overrepresented at 39% when considering that visible minorities are 27% of the population of Alberta[4].

Survey respondents with at least one female founder compared to no female founders:

- 8% more likely to have raised $1 million or more in funding to date (43% vs 35%)
- More likely to use personal savings and angel investors as a funding source, 9% and 8% respectively. In contrast 6% less likely to use corporate venture capital as a funding source.

Survey respondents with at least one minority founder compared to no minority founders:

- 6% more likely to be profitable within the first 3 years (25% vs 19%)
- 2% more likely to have annual revenues exceeding 500K (33% vs 31%)

Self-identifies as a visible minority?	39%
Self-identifies as a woman?	36.7%
Is a recent immigrant?	14%
Self-identifies as 2SLGBTQIA+?	8%
Self-identifies as an Indigenous person?	3.4%
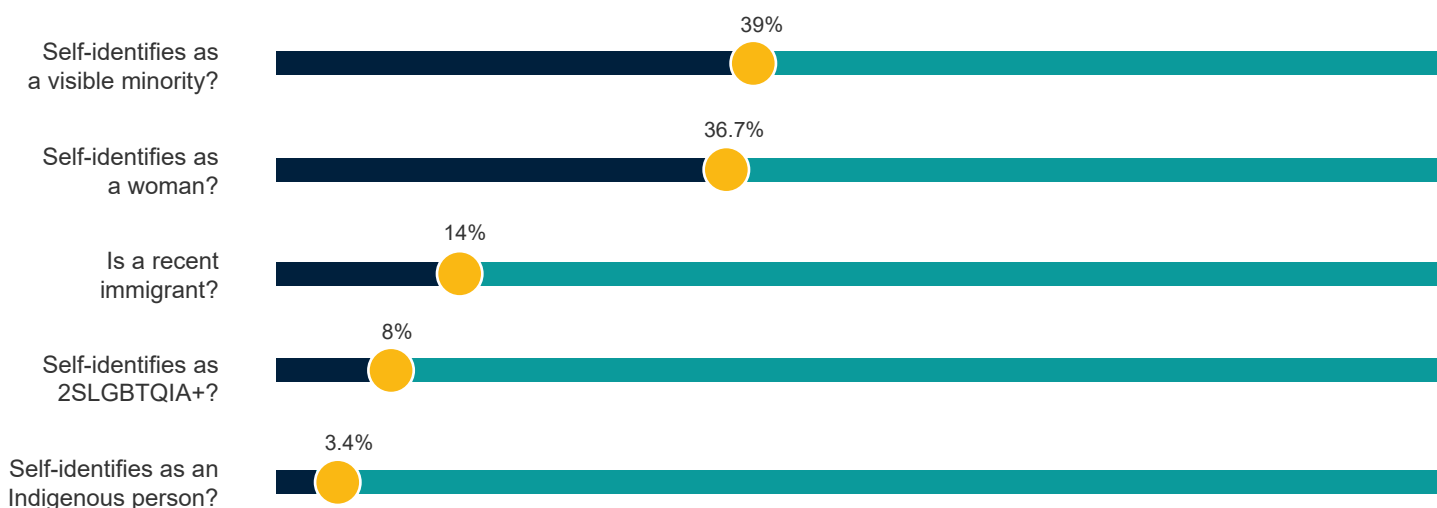
● Yes ● No

Source: 2023 AEC DFS Survey Recent immigrants defined as within the last five years (2018 – 2023).

3.4 Employees

Of companies with at least one full-time employee the most common company size is between 1-4 employees (47%, an increase of 14% from 2021 results) and 84% have less than 25 employees.

Survey respondents with 1–4 employees tend to have:

- Been founded in the last three years (55%)
- Raised less than $500k since their establishment (26%)
- Achieved less than $500k in annual revenue in the previous fiscal year (39%)
- Have founders with a technical background (69%)
- Have founders with previous startup experience (56%)
- Have at least one founder that self identifies as female (37%)

Survey respondents with 5 – 50 employees tend to:

- Have raised more than CAD $1 million in funding to date
- Be in the scaling or establishing phases (73% of these companies are in one of these phases)
- Have annual revenue in their last fiscal year of between $500k - $10 million (55%)

---

[4] *Canada 2021 Census,* statcan.gc.ca/en/census/census-engagement/community-supporter/immigration

Figure 18: Company Size

The survey findings about the company size are impacted by the age of the responding companies, as newer companies tend to have fewer employees. When analyzing the correlation between company age and number of employees for both 2021 and 2023, no significant difference was identified between the surveys, meaning that generally there is a consistent correlation between number of employees and age of company between the two reports.

Legend: ● 2021 ● 2023

Company Size	2021	2023
1 - 4	33.1%	47.3%
5 - 9	17.4%	18.7%
10 - 24	23.1%	18.3%
24 - 49	12.9%	9.1%
50 - 99	6.3%	3.7%
+100	5.4%	2.7%

Company Size (# of Employees)
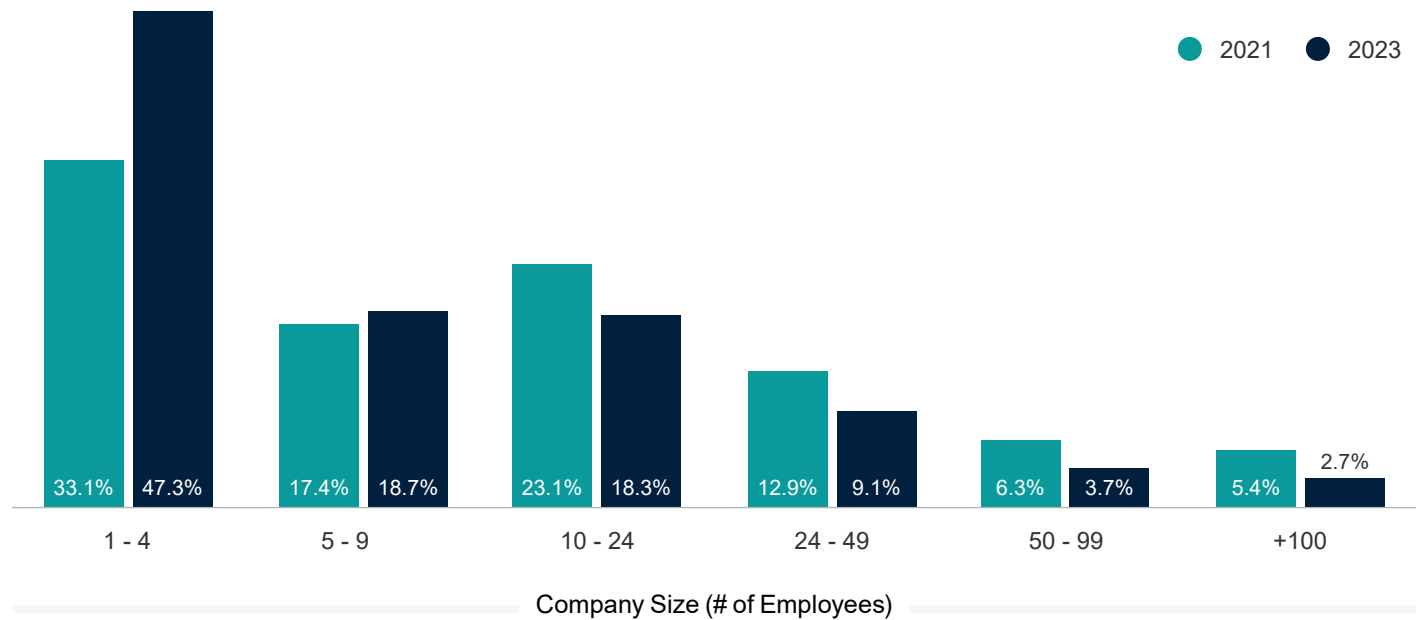
Source: 2023 AEC DFS Survey

Figure 19: Number of Employees (Size of Company) by Founding Year

Most companies founded in the last three years have 1-4 full time employees (24%).

Source: 2023 AEC DFS Survey

Legend: ● 0 ● 1-4 ● 5-9 ● 10-99 ● Over 100
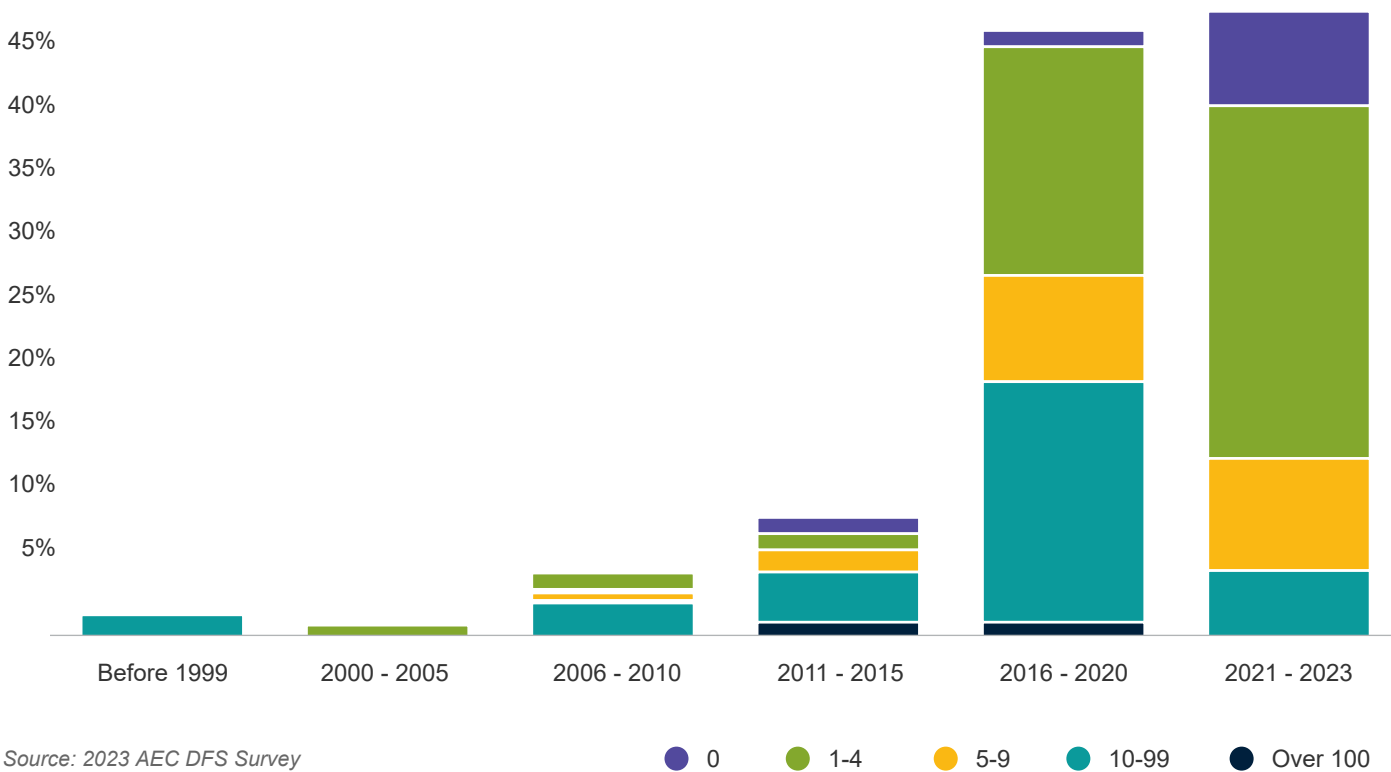
Figure 20: Percent of Respondents who Indicated the Diversity of their Employees:

20% of companies indicated that they had 10% or more of their workforce identifying as 2SLGBTQIA+ while 35% of companies indicated that their workforce was comprised of 50% or more women.

79.5%	13.6%	2.3%	1.5%	0.4%	0.8%					1.9%
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

Percentage of Employees that Self Identify as 2SLGBTQIA+
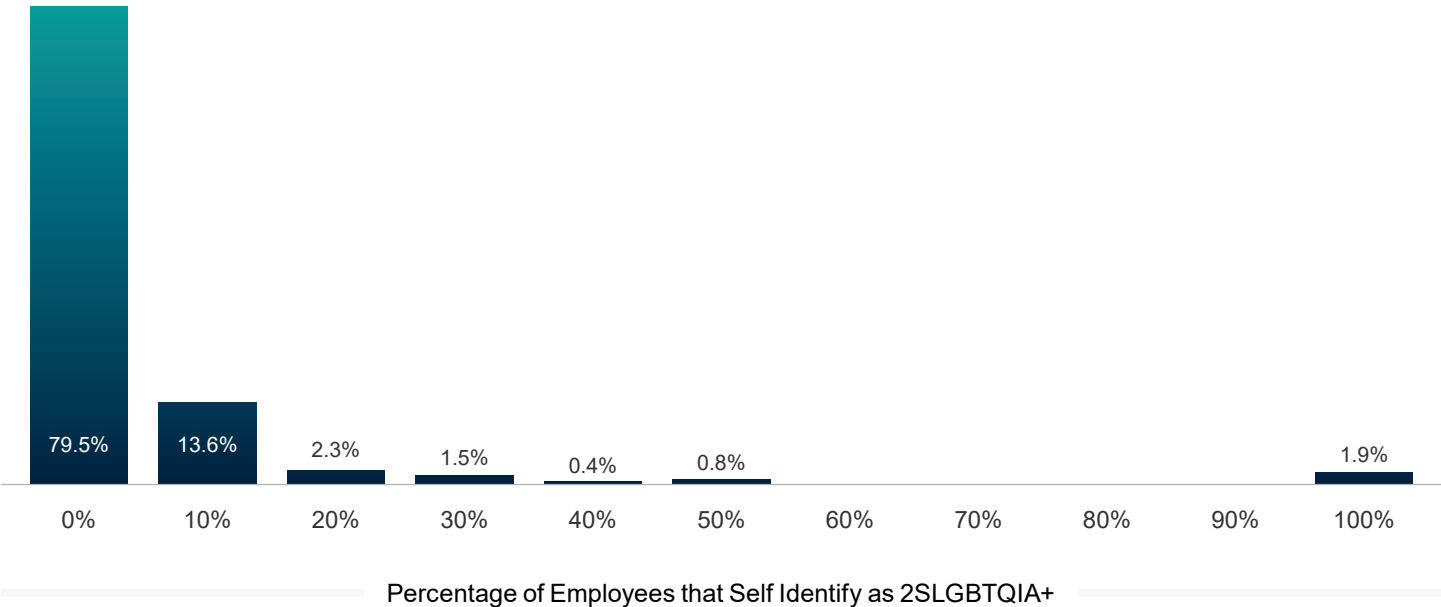
Source: AEC DFS 2023; Percent of respondents who indicated that the employees of their company were comprised of 2SLGBTQIA+.
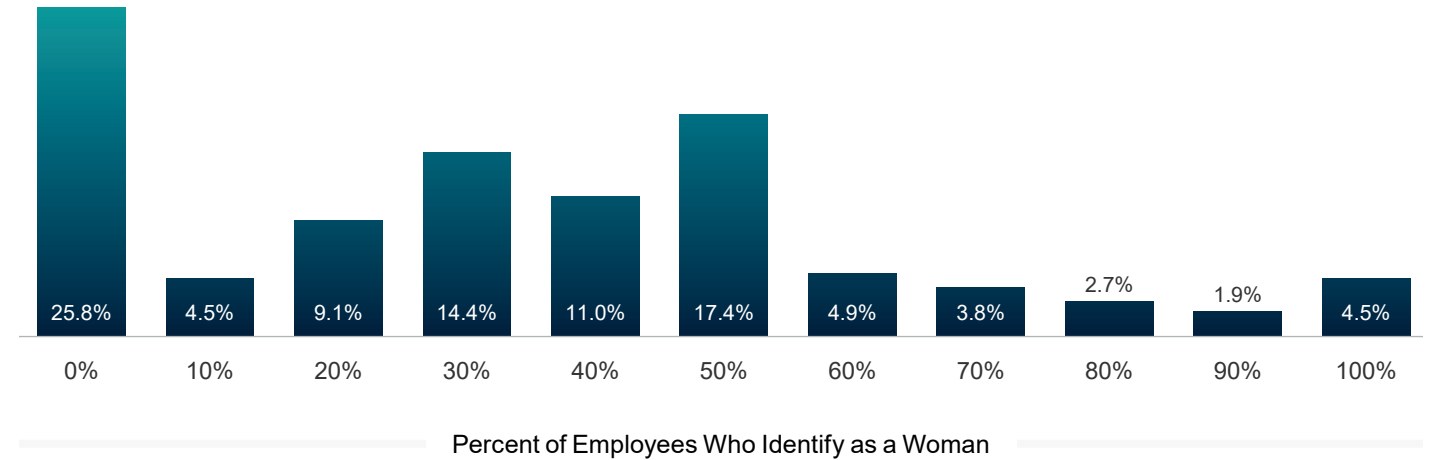
25.8%	4.5%	9.1%	14.4%	11.0%	17.4%	4.9%	3.8%	2.7%	1.9%	4.5%
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

Percent of Employees Who Identify as a Woman

Percent of respondents who indicated that the employees of their company were comprised of women.

Figure 21: Breakdown of Men and Women Employees by Company Size

The breakdown of employee composition for companies with greater than 50 employees tends to be balanced, indicating strong diversity across larger populations of employees. However, companies with less than 50 employees tend to have more male representation.

Number of Employees	Greater than 50% Men	Greater than 50% Women
200 - 499	0.8%	0.8%
100 - 199	1.5%	1.1%
50 - 99	5.3%	0.4%
25 - 49	7.6%	3.8%
10 - 24	12.5%	3.8%
5 - 9	26.1%	7.2%
0	5.7%	0.8%

Source: 2023 AEC DFS
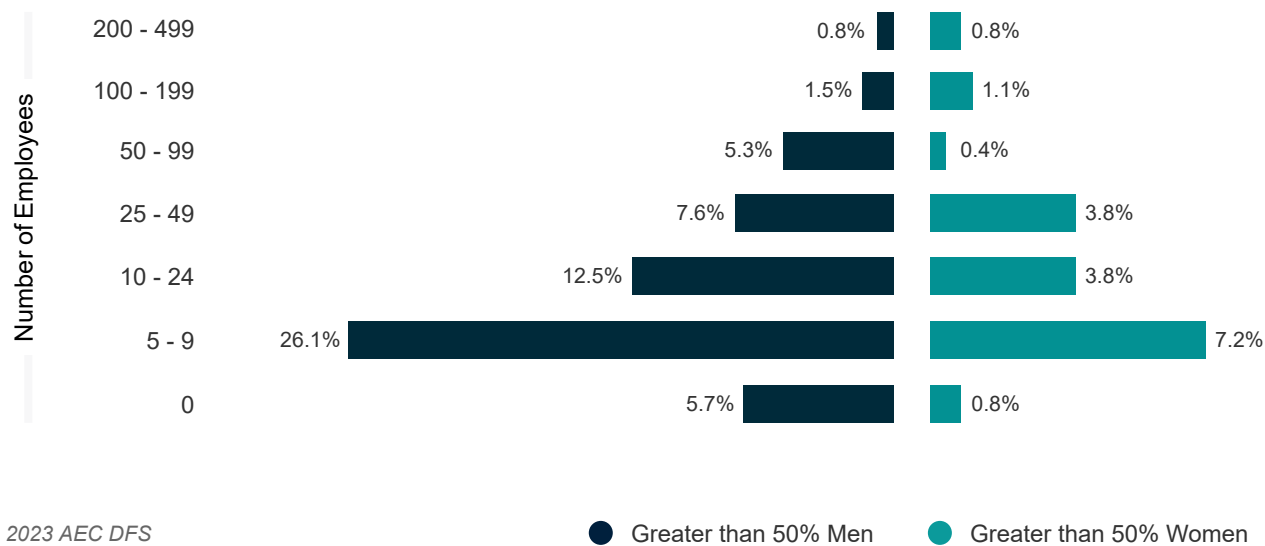
Figure 22: Companies with at Least one executive who identifies as a recent immigrant
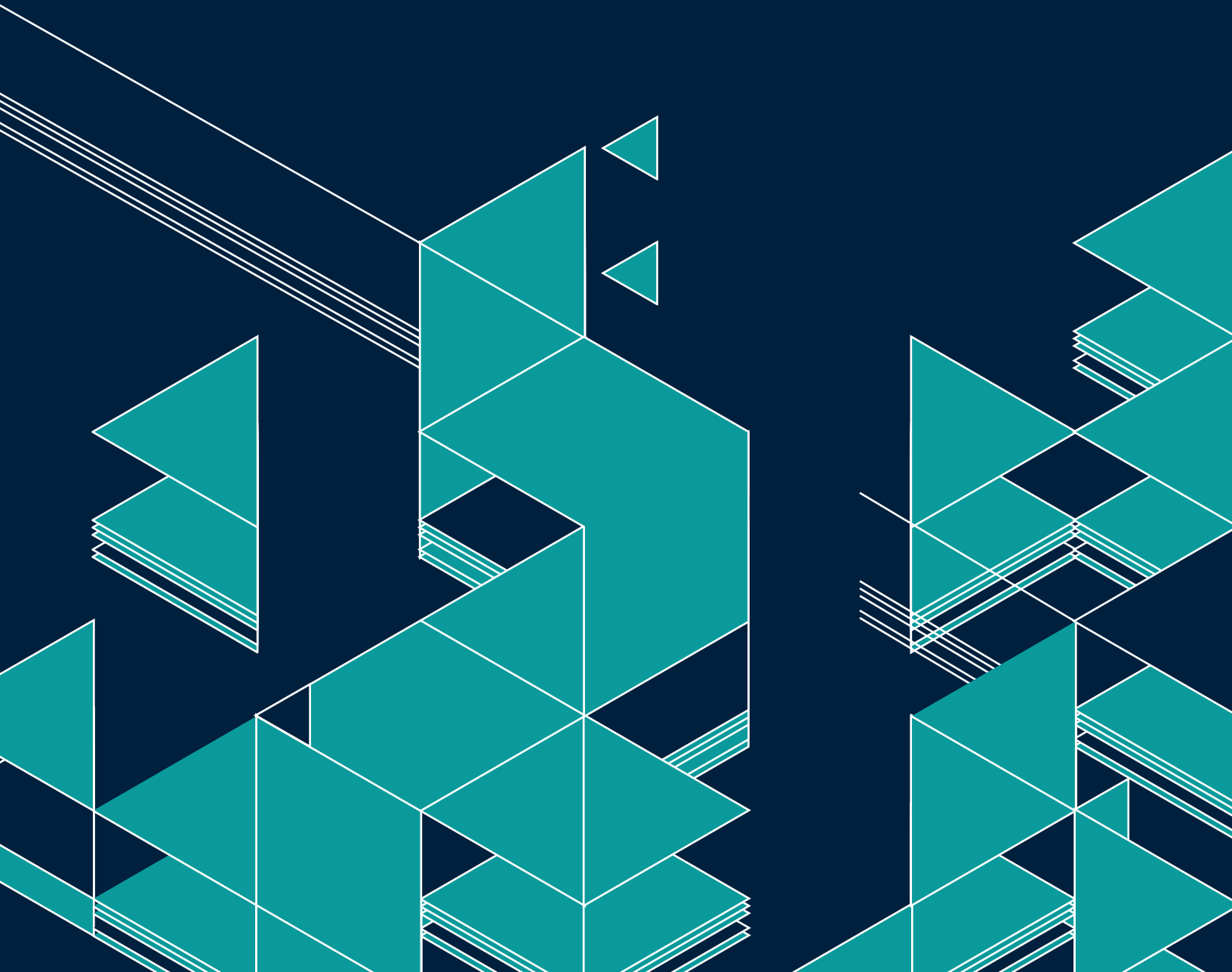
19% of Survey Respondents have at least one executive that identifies as a recent immigrant, while 74% of respondents indicated that less than 20% of their employees are recent immigrants.

Are any of the executives of your company a recent immigrant? 18.6%

Source: 2023 AEC DFS Survey; Recent immigrant defined as within the last five years, 2018-2023

4

Operations

4.1 Overview

This section summarizes operational characteristics of the survey respondents.

42% of companies surveyed were founded between 2021 and 2023.

42% of survey respondents are in the Validating Phase, 39% are working on Scaling, and 8% are Establishing their product.

84% of survey respondents identify business-to-business (B2B) as their primary business model, with an additional 18% indicating that they offer a multi-sided platform.

69% of survey respondents utilize Software in their product or service offering, while almost 50% rely on Artificial Intelligence or Machine Learning.

63% of companies consider themselves startups.

4.2 Company Characteristics

Figure 23: Share of Startup Companies

Of the 264 surveyed companies, 165 answered that they considered themselves a startup, 90 considered themselves a scaleup, and 9 considered themselves mature.

Category	Percentage
Mature	3.4%
Scaleup	34.1%
Startup	62.5%
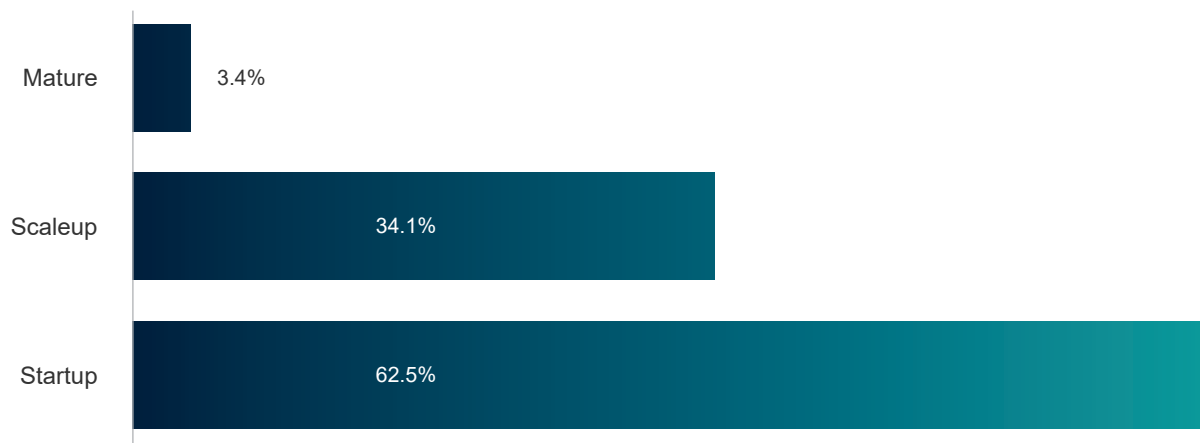
Source AEC 2023 DFS

Figure 24: Companies by Founding Year

42% of the companies who responded to the survey have been founded in the last three years. 63% of survey respondents consider themselves startups, with 34% considering themselves to be scaleups and only 3% consider themselves mature. Among the 165 startup companies, 92% were founded in 2016 or later. For companies that consider themselves in the scale up phase, 74% were founded in 2016 or later, while more than 75% of the mature companies were founded before 2018.

Founding Year	Percentage
Before 1999	1.9%
2000 - 2005	1.1%
2006 - 2010	4.2%
2011 - 2015	9.1%
2016 - 2020	41.3%
2021 - 2023	42.4%
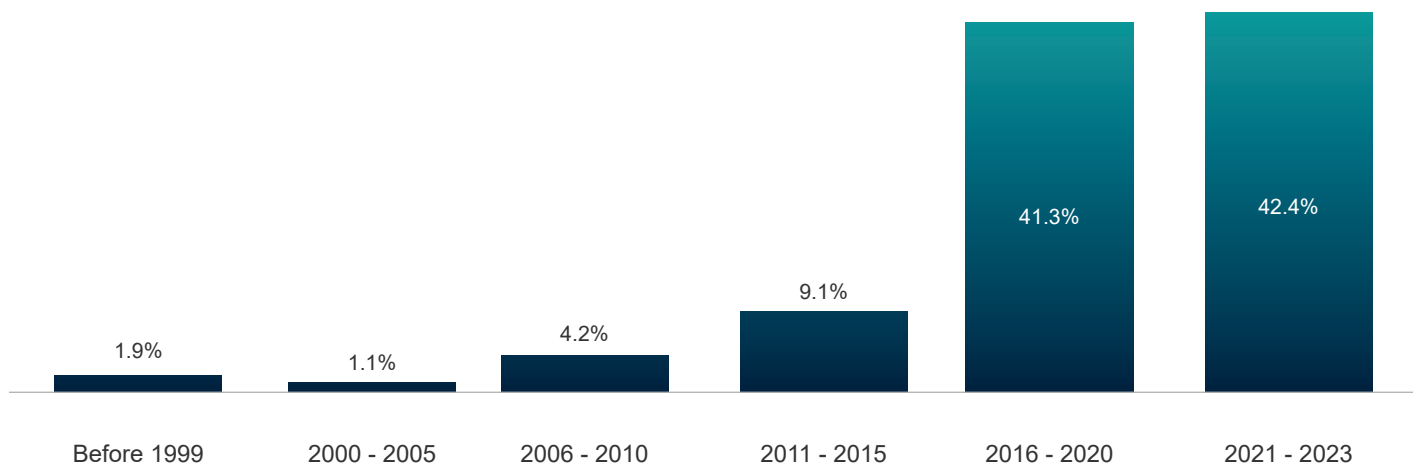
Source: AEC DFS Survey 2023

Figure 25: Company Phase Breakdown by Founded Year

80% of companies who started from 2021-2023 indicated that they are in a startup phase.

● Startup   ● Scaleup   ● Mature

	2010 and before	2011 - 2015	2016 - 2020	2021 - 2023
Mature	31.6%	4.2%	1.8%	
Scaleup	47.4%	58.3%	41.3%	19.6%
Startup	21.1%	37.5%	56.9%	80.4%

100%
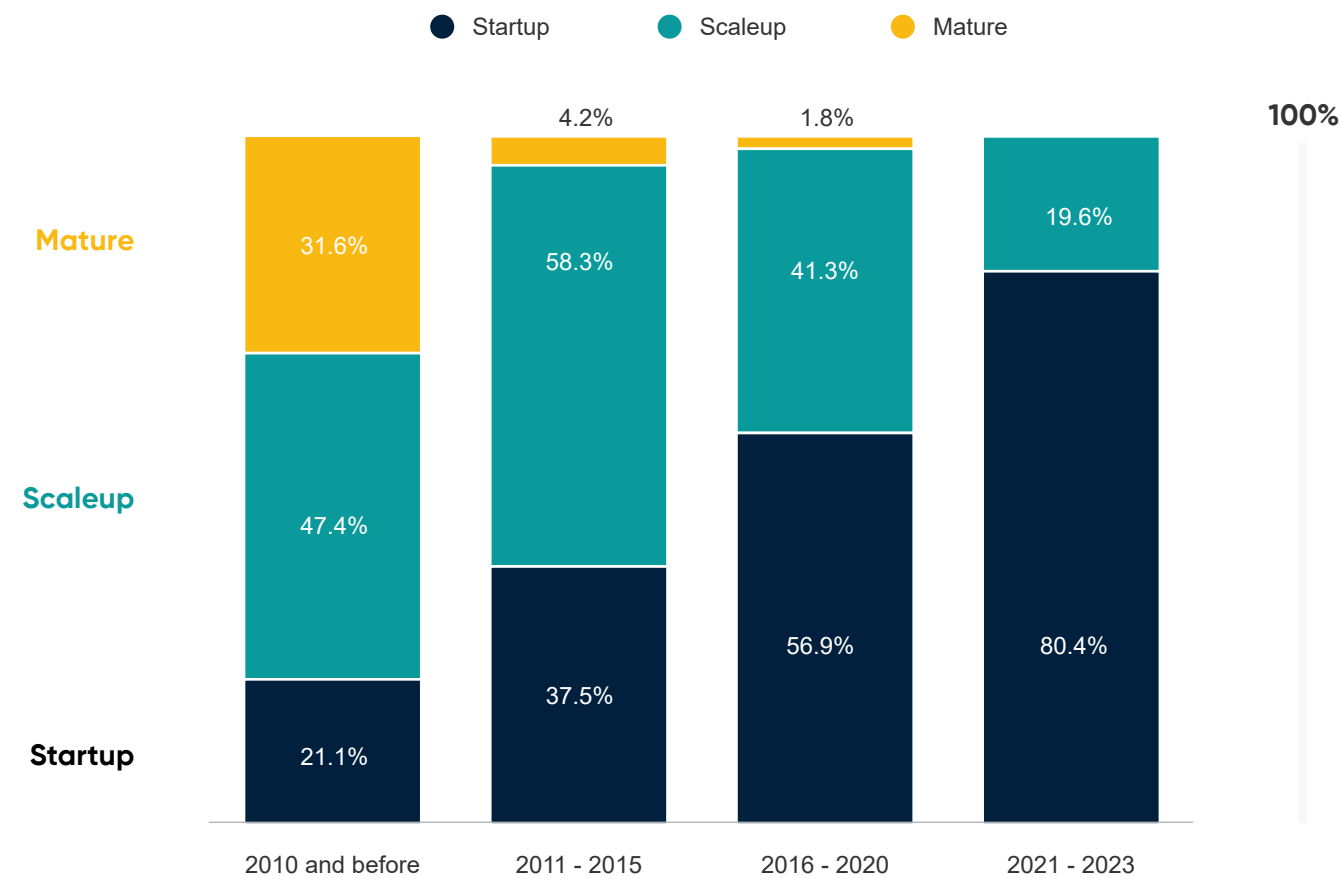
Source: AEC DFS Survey 2023; Totals may not equal 100% due to rounding

Figure 26: Spin-Offs of Academic Research

13% of survey respondents are spun out of academic research. Calgary has a larger percentage of these companies than Edmonton, 60% versus 34%. The companies that are an extension of academic research tend to:

- Produce an innovative physical product (34%), produce an innovative service (14%) or a combination of the two (43%)
- Have founders with a technical background (80%). Of these founders with a technical background 43% have raised 1 million CAD or more in funding to date, compared with the 36% of survey respondents with technical backgrounds that are not spun off academic research.

Yes	13.3%
No	86.7%

Source: AEC DFS Survey 2023   ● Calgary   ● Edmonton

Figure 27: Product Building and Outsourcing

36% of responses indicated that they are utilizing a hybrid approach when developing their product, using both outsourced and internal resources. Of those, 37% are specifically outsourcing to contractors within Canada and 21% are only outsourcing internationally. The majority (63%) of survey respondents develop their product or service internally, which is an increase of 9 percentage points from the 2021 study. 33% of the companies combine outsourcing and developing internally, a decrease of 6 percentage points from the 2021 study. Only 3% of survey respondents exclusively outsource the product or service development.

Where is your company outsourcing?

● Within Canada   ● International   ● Both

21.3%
41.5%
37.2%

Are you building your product on your own or outsourcing?

62.9%
Building our own product in-house

33%
A mix of both
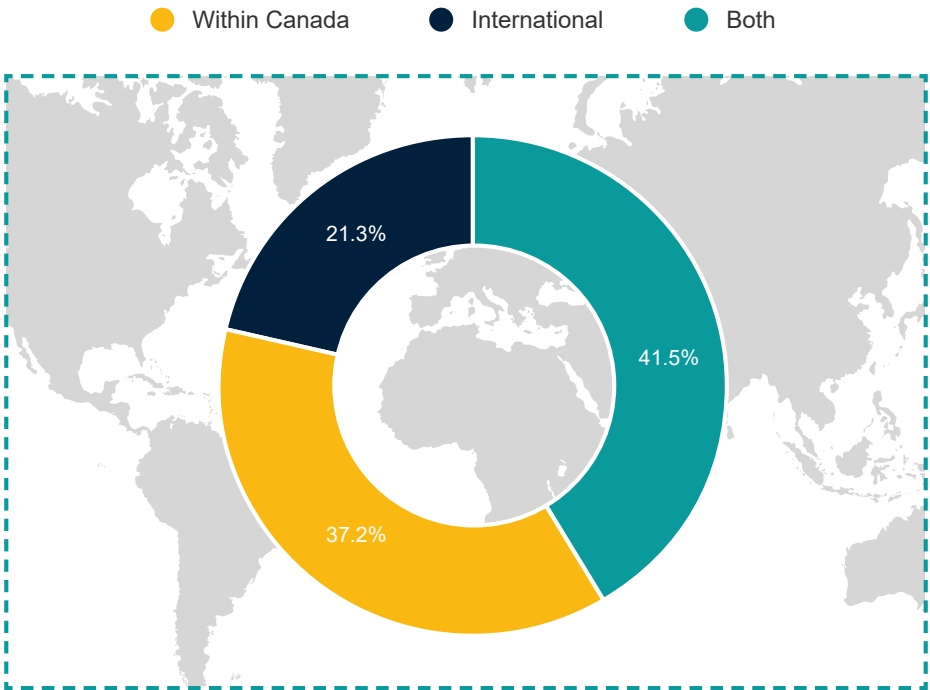
2.7%
Outsourcing
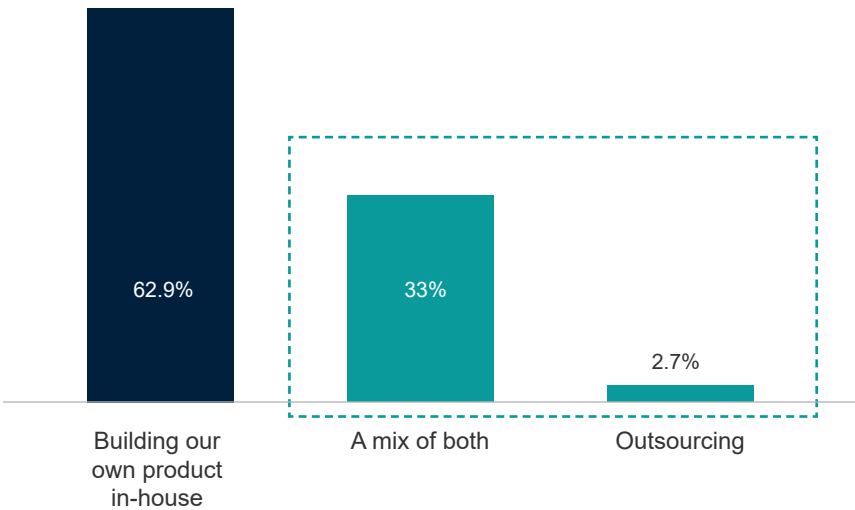
Source: AEC DFS Survey 2023

4.3 Products and Services Offered

Company's products or services are intended to have potential impacts on consumers, with a wide range of ultimate outcomes and benefits. Cost savings and business productivity were among the most selected options by respondents at 72% and 68% respectively.

In addition, companies have made a conscious effort to deliver Environment, Social and Governance (ESG) impacts through their product and service offerings, with 40% of survey respondents reporting social benefits, 35% reporting environmental benefits, and 19% reporting governance benefits.

Figure 28: Impacts of Company's Product

Cost savings 72%
Business productivity 68.2%
Social benefits
Environmental benefits
Governance benefits
Other

12.9%   19.3%

● ESG Focus

35.2%

39.8%
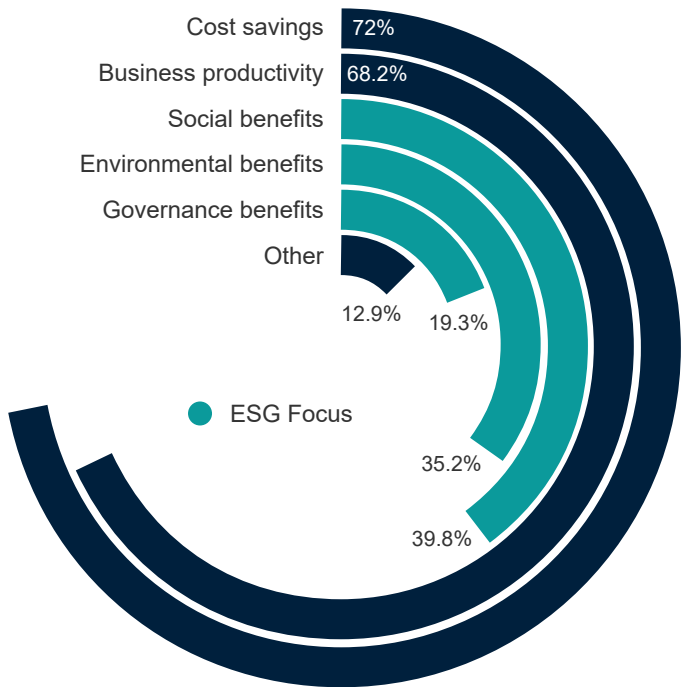
Source: 2023 AEC DFS, Impacts add up to more than 100% as company products may have multiple impacts.

48% of survey respondents develop either an innovative service (34%) or physical product (14%), while a further 32% provide a combination of the two.

Figure 29: Product or Services Developed

34.5%
32.2%
14.4%
11.7%
7.2%

● An innovative service

● A combination of an innovative service and a physical product

● An innovative physical product

● Existing product or service made or delivered in a new way

● Other
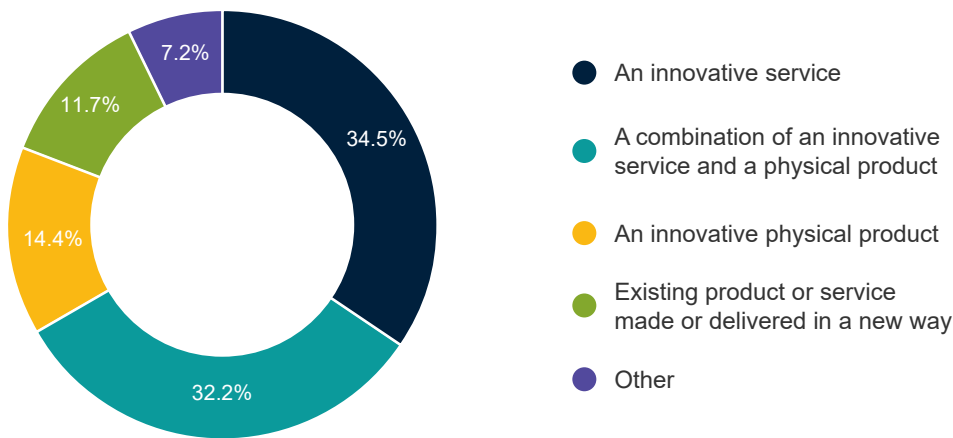
Source: 2023 AEC DFS

For 69% of respondents, software is the primary digital innovation technology offered by their company. Artificial Intelligence and Machine Learning has seen a 10% increase from the 2021 study, 36% in 2021 to 46% in 2023.

Figure 30: Breakdown of Digital Innovation Technology Utilized in Company's Offering

Category	Percentage
Software	69.3%
AI / ML	45.5%
Innovative in how a product is designed	24.2%
Hardware	20.5%
Big Data	22.3%
Innovative in how a business is structured	21.2%
Chemistry / Biology	12.9%
Materials	11.7%
Cryptocurrency	2.7%
Other	7.2%
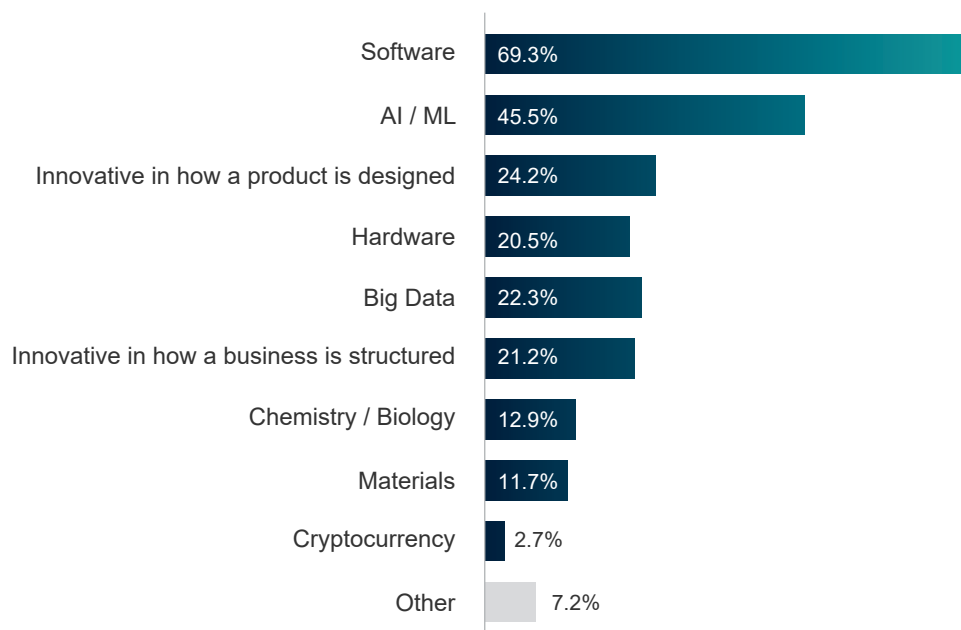
Source: AEC DFS 2023 Impacts add up to more than 100% as companies may utilize more than one technology.

Figure 31: Which CVCA Technology Tag Best Reflects Your Business

In the technology sector, it is common that a company doesn't easily "fit" in a traditional classification box. To support correctly identifying and categorizing companies, the CVCA has developed a Tech Tag system to add an additional layer of insight into companies using common technology language like AI, FinTech or Big Data. In the 2023 Survey, respondents were asked to select up to five Tech Tags that best described their business. The most selected tag with 31% of survey respondents was Software as a Service ("SaaS") followed by Artificial Intelligence ("AI") at 26%.

Big Data	6.1%
Data Intelligence	6.8%
Internet of Things (ioT)	6.8%
Oil and Gas	7.2%
Hardware	7.2%
eCommerce	7.6%
AgTech	8.3%
Digital Health	9.1%
Climate Tech	9.1%
Marketplace	9.5%
Life Sciences	11.4%
Data Analytics	12.1%
FinTech	12.5%
CleanTech	12.9%
HealthTech	13.6%
Machine Learning (ML)	16.7%
Analytics	18.2%
Enterprise Software	20.1%
Artificial Intelligence (AI)	26.1%
SaaS	30.7%
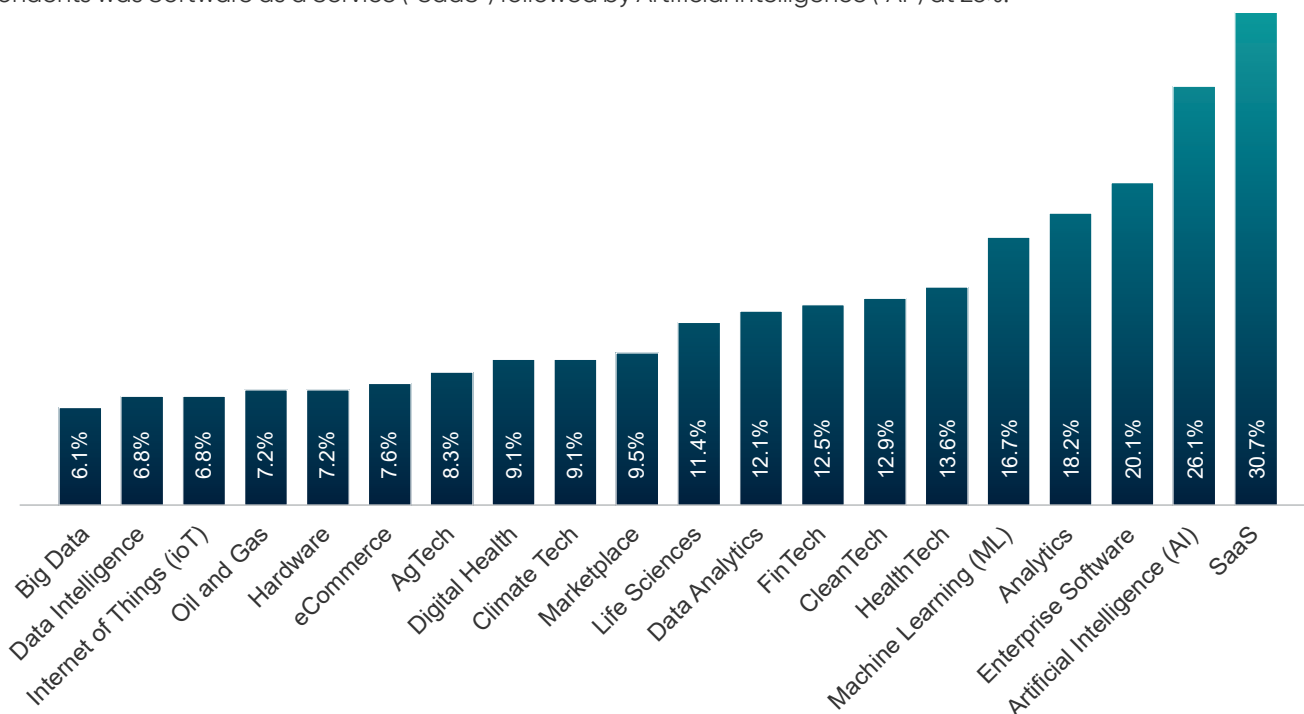
Source AEC DFS 2023 Survey up to five choices could be selected only top 20 shown. Other not shown.

Figure 32: Product or Service Development Stage

Consistent with the 2021 study, the framework used for classifying startup development phases was created by Startup Commons. A combined 81% of respondents indicated that their startup was in the validating or scaling stage of development. The number of companies that identified as being in the validating phase has increased by 13% (42% in 2023 vs 29% in 2021), whereas the number of companies that identified themselves as being in the scaling phase has decreased by 12% (39% in 2023 vs 51% in 2021). Only 4% are in the ideating and concepting stage, which is comparable to the 2021 survey results.

The shift between the Scaling and Validating stages is likely a result of the earlier discussed difference in company age of the survey respondents. Companies move through the development stage throughout their lifecycle.

Ideating	1.1%
Concepting	3%
Committing	4.2%
Validating	42%
Scaling	39.4%
Establishing	8.3%
Not sure / Prefer not to say	1.9%
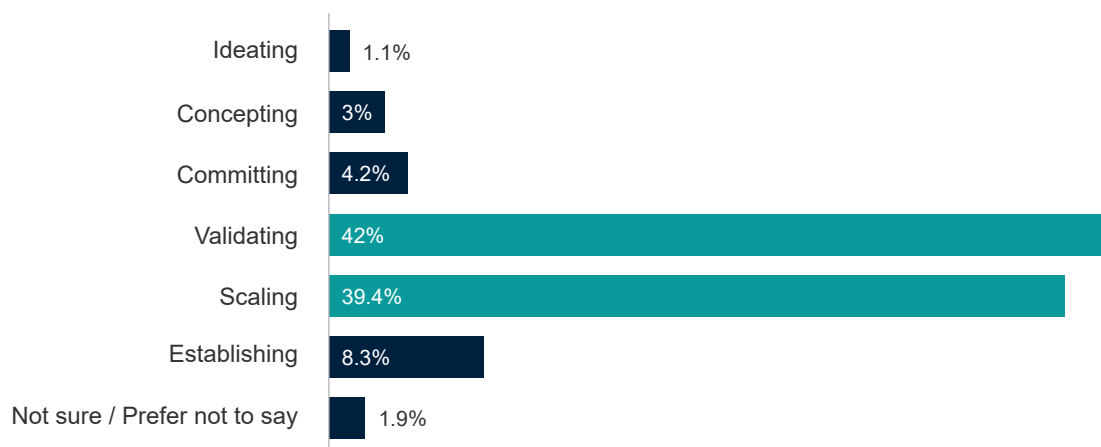
Source: AEC DFS Survey 2023; Phases were obtained from startup commons; www.startupcommons.org/startup-development-phases.html

Figure 33: Company Age by Development Stage

Legend: ● Ideating ● Concepting ● Committing ● Validating ● Scaling ● Establishing

Company Age (Years)	Ideating	Concepting	Committing	Validating	Scaling	Establishing
1 - 2	2.9%	7.1%	7.1%	55.7%	22.9%	4.3%
3 - 4			5%	46.3%	36.3%	10.3%
5 - 6	2.5%		4.3%	44.7%	46.8%	4.3%
7 - 8				28.6%	57.1%	14.3%
9 - 10	9.1%			36.4%	54.5%	
11 - 15		5.6%		22.2%	61.1%	11.1%
16 - 25					77.8%	22.2%
>25					33.3%	66.7%
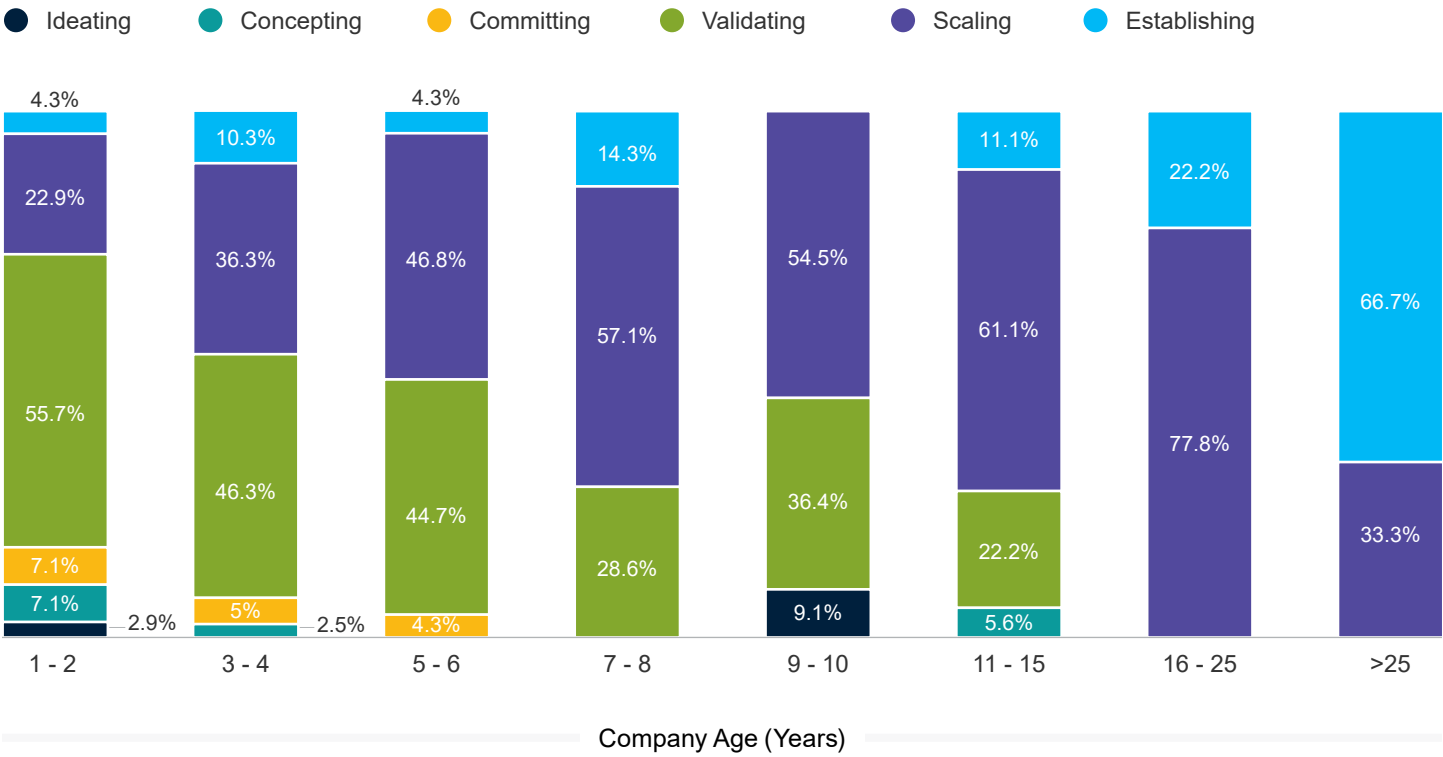
Source: AEC DFS Survey 2023, Phases were obtained from startup commons, startupcommons.org/startup-development-phases.html

There is a positive relationship between the development stage of a product and the amount of funding raised to date. Companies entering the Scaling Stage have demonstrated greater ability to raise funding. More advanced companies in terms of their product development tend to have accumulated more funding. A similar trend is visible when looking at revenues in the last fiscal year. 12% of survey respondents in the Establishing Stage and 51% of survey respondents in the Scaling Stage had revenues of greater than $1 million.

Figure 34: Product Development Stage by Amount of Funding Raised

● Ideating   ● Concepting   ● Committing   ● Validating   ● Scaling   ● Establishing

	No Funding	Less than $1M	$1M-5M	$5M+
Establishing	11.9%	6.4%	7.1%	9.5%
Scaling	32.8%	26.6%	48.2%	71.4%
Validating	32.8%	62.8%	39.3%	19.0%
Committing	10.4%	2.1%	22.9%	
Concepting	7.5%	2.1%	1.8%	
Ideating	4.5%			
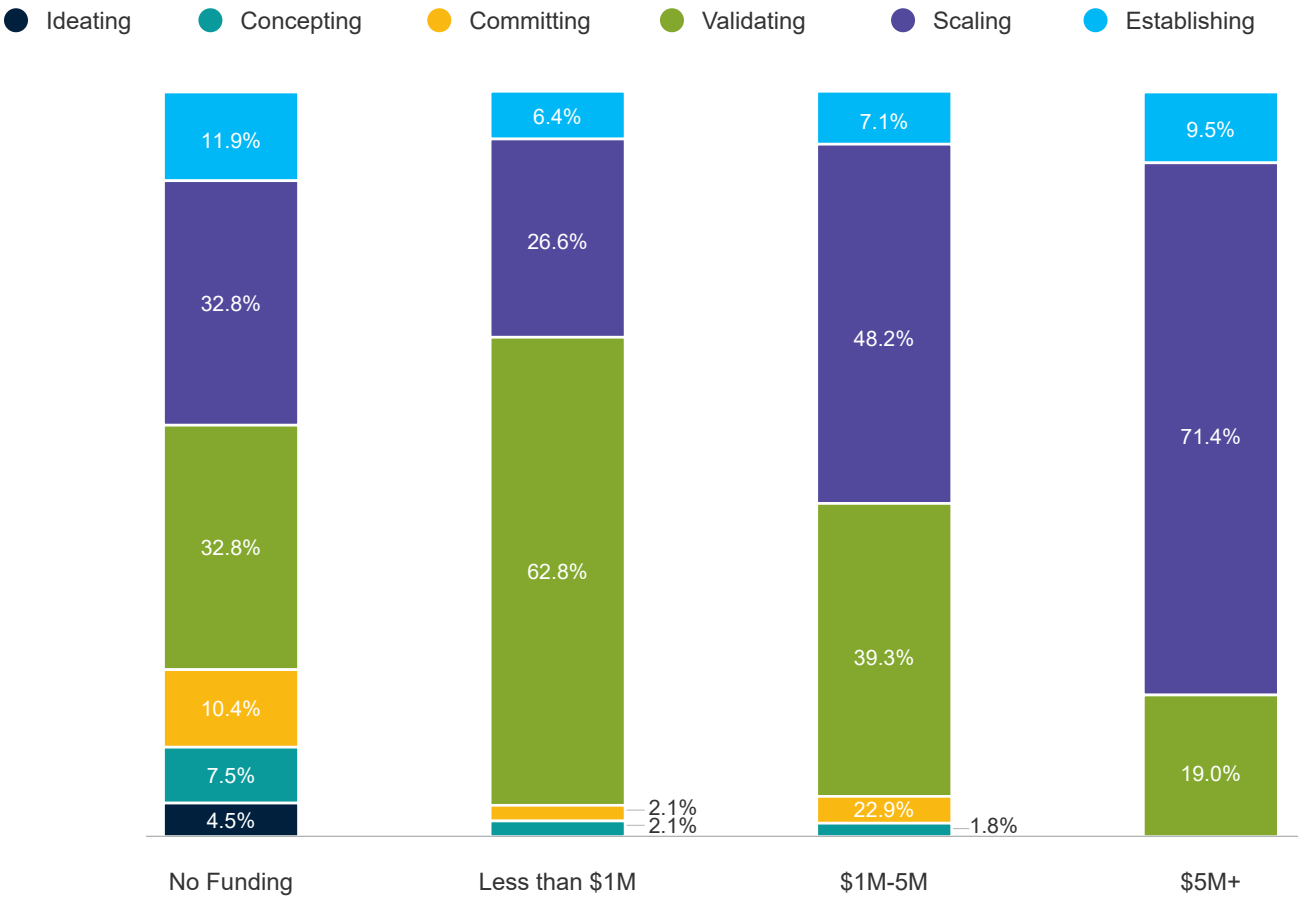
Source: AEC DFS 2023

Figure 35: Product Development Stage by Amount of Revenue Earned

63% of Companies in the Validating stage indicated that they are in a pre-revenue phase. This moves to Scaling as companies begin to exceed $1M in revenue.

Legend: ● Ideating ● Concepting ● Committing ● Validating ● Scaling ● Establishing

Pre-revenue:
- 1.3% (Establishing)
- 13.3% (Scaling)
- 62.7% (Validating)
- 12% (Committing)
- 8% (Concepting)
- 2.7% (Ideating)

Less than $1M:
- 8.6% (Establishing)
- 40.6% (Scaling)
- 46.9% (Validating)
- 1.6% (Committing)
- 0.8%
- 0.8%

$1M - 15M:
- 13% (Establishing)
- 76.1% (Scaling)
- 6.5% (Validating)
- 2.2%

$15M+:
- 26.7% (Establishing)
- 46.7% (Scaling)
- 6.7% (Validating)
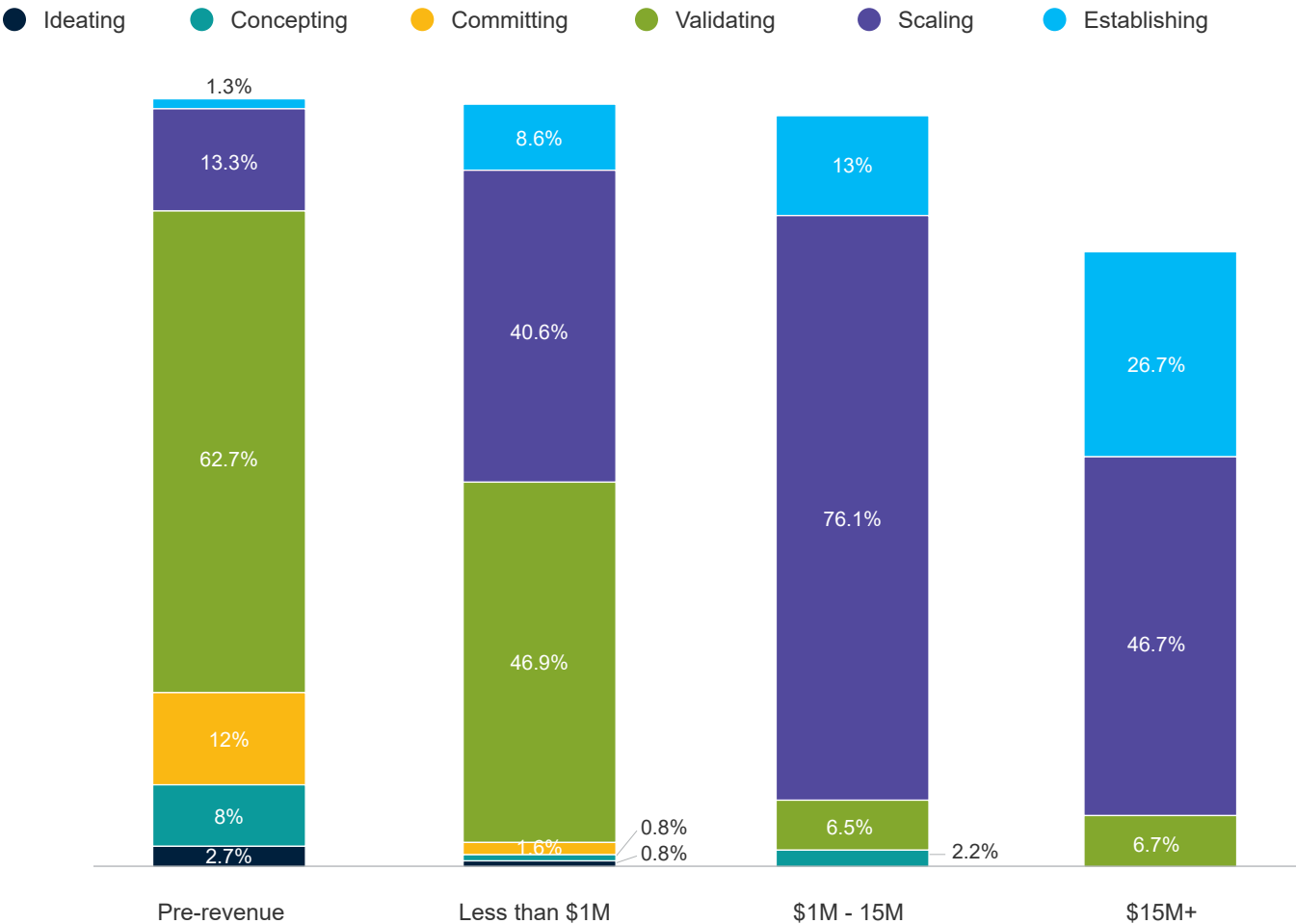
Source: AEC DFS 2023

Figure 36: Companies Business Model

Business-to-business (B2B) remains the most common business model, with 85% of survey respondents identifying as B2B, up from 72% in 2021. For Business-to-consumer (B2C) 25% of companies offer their product or services to individual consumers, up from 17% in 2021.

- Business -to-Business (B2B): 84.5%
- Business-to-Consumer (B2C): 25%
- Multi-sided platform: 18.2%
- Business-to-Government (B2G): 11.7%
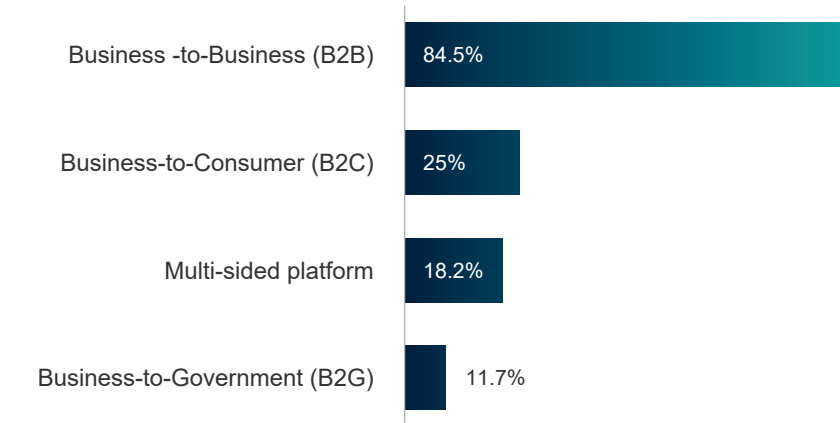
Source: AEC DFS Survey 2023; Business Model adds up to more than 100% as companies may use more than one business model.

4.4 Exports

Figure 37: Value of Exports

38% of survey respondents realized revenue from customers outside Canada, with 13% of companies exporting more than $1 million. It is worth noting that almost 40% of the companies with less than $1 million in total revenue are operating internationally.

Category	Percentage
No exports	61.7%
Less than $100K	13.3%
$100K - $500K	7.6%
$500K - $1M	4.5%
$1M - $5M	6.1%
$5M+	6.4%
Other	0.4%
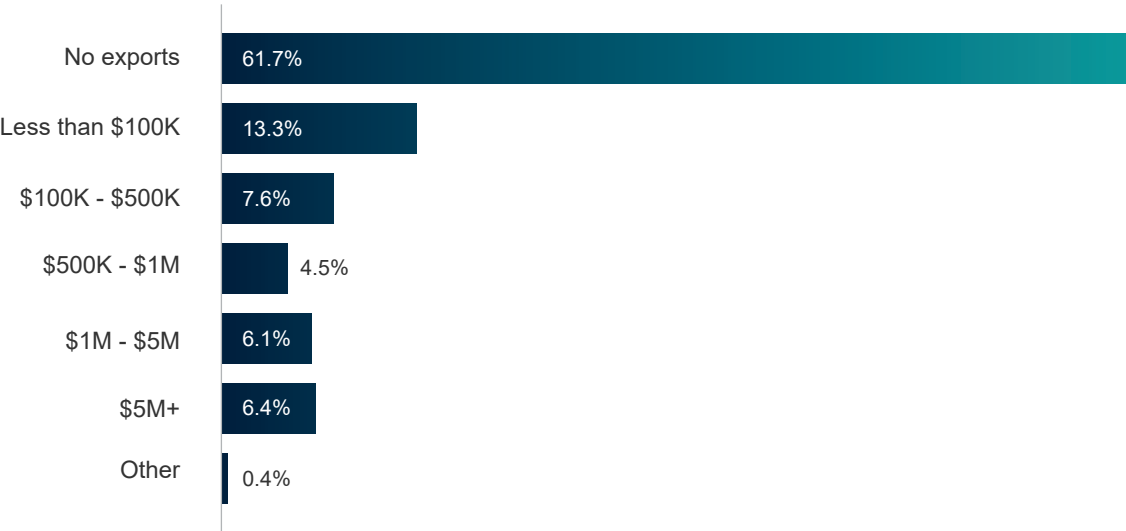
Source: AEC DFS Survey 2023

Figure 38: Location of Exports (% of Total Respondents)

Of the 264 responses collected in the survey 49% of respondents indicated they sell products and/or services to customers in the USA, while 21% of respondents export to Europe. 5% of respondents indicated they have exported to regions outside of those shown below.

- USA: 48.5%
- Europe: 21.2%
- Asia: 11.4%
- Middle East: 10.2%
- South America: 8.7%
- Africa: 7.6%
- Other: 5.3%
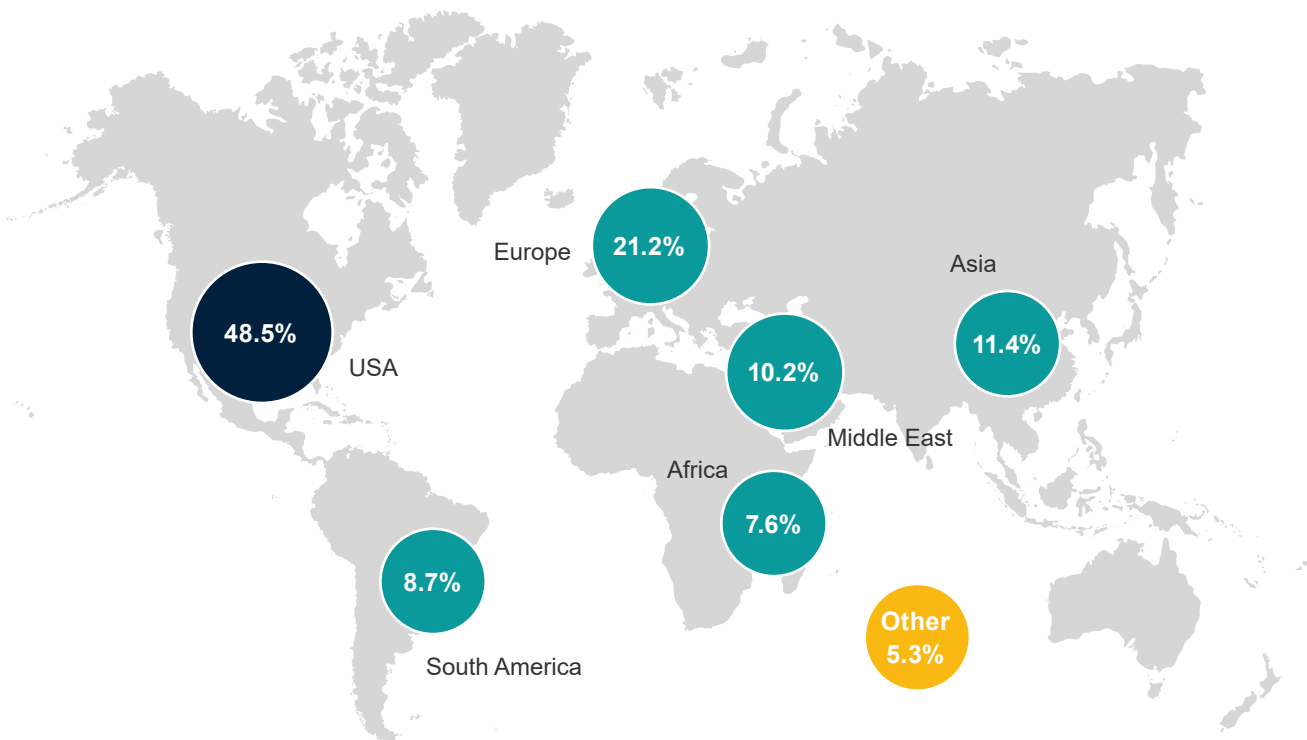
Source: AEC DFS Survey 2023; percent of total responses, may total to greater than 100% as companies could export to more than one region.

4.5 Challenges and Opportunities

Figure 39: Biggest Challenges Faced

Many of the respondents, at 69%, highlight a lack of access to capital and/or funding as the biggest immediate challenge facing their companies. This number has increased by more than 10% from 2021. 64% of the companies that selected this were founded between 2020 – 2023.
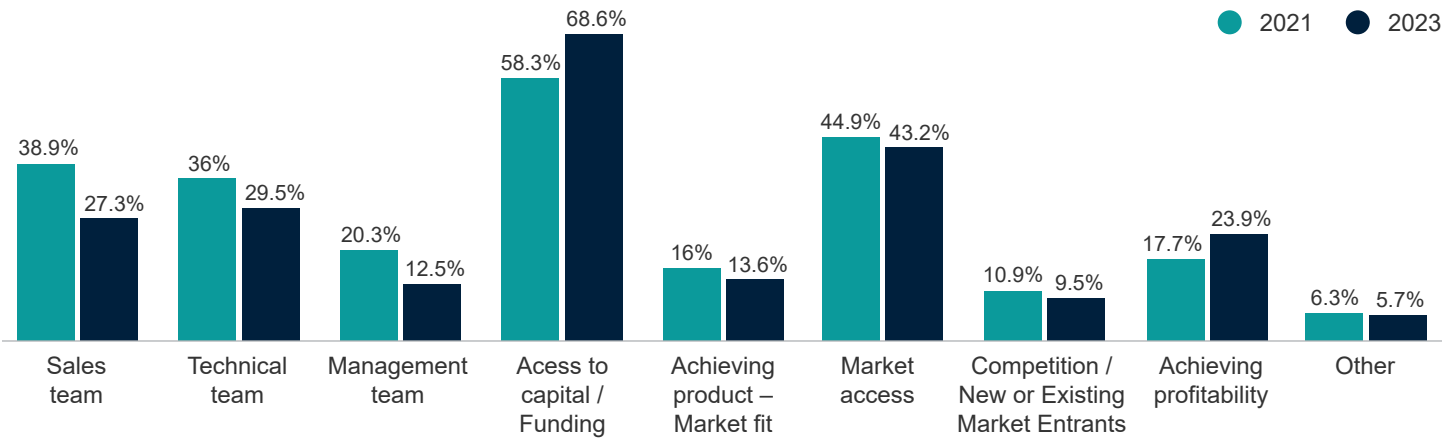
Figure 36 Source: 2023 AEC DFS, data presented based on 2023 results

Access to capital and market access are common challenges for early-stage companies, so it is no surprise these areas score the highest in both the 2023 and 2021 surveys. The increased challenge to find capital in 2023 compared to 2021 is also in line with macro market conditions which have made access to equity capital more challenging across all stages and emphasized the need for efficiently run businesses with a focus on revenue and profitability. Since 2021, access to talent has decreased as one of the biggest challenges startups face. Accordingly, achieving profitability (24%) has seen an increase of 6% from 2021 as a challenge for founders. These challenges relate to access to both technical and sales talent, including developing, acquiring, and retaining teams remains a challenge, particularly in the case of technical talent (30%) and sales teams (27%) however, we note that this has decreased as an immediate challenge from the 2021 survey by 7% and 13% respectively.

Interestingly, 40% of companies that identified Access to Capital/Funding as their biggest challenge have secured funding of less than $1 million CAD to date. The trend suggests a correlation between the challenges companies are facing with the funding raised.

Figure 40: Reasons for unsuccessful fundraising in last two years

Of the companies who were unsuccessful in their fundraising efforts in the last two years, the top three challenges encountered were not enough traction to date (25%), lack of access to investors (24%), and investors not understanding the vision (19%). "Yes" indicates companies who have tried to raise capital in the previous two years but failed.
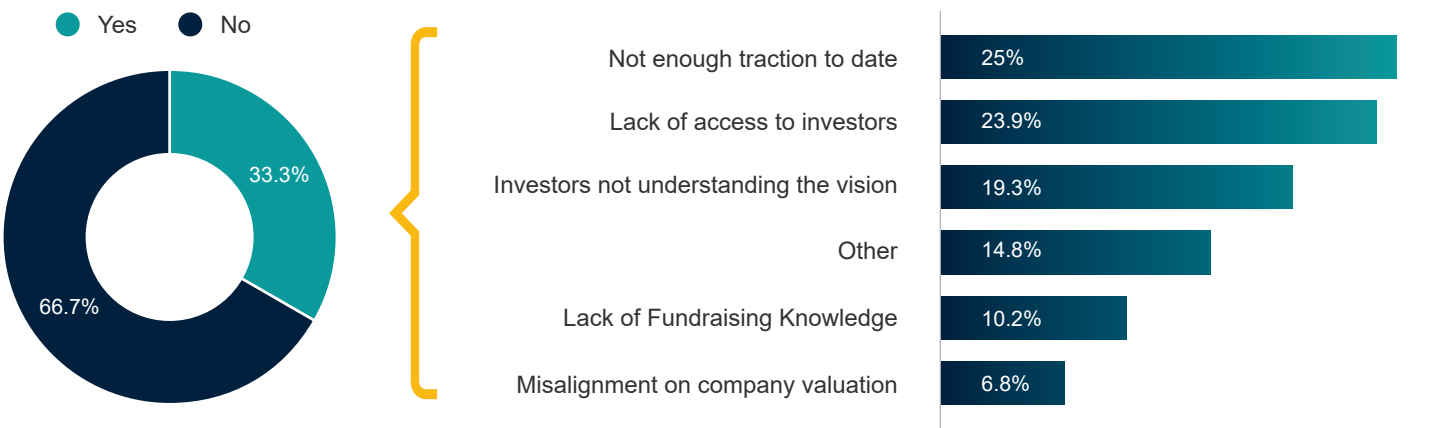
Source 2023 AEC DFS Impacts add up to more than 100% as companies may have more than one immediate challenge.

Of the companies who participated in the survey, 47% have found the recruiting for senior level roles the most challenging, with mid-level roles closely behind at 42%.

Figure 41: Recruitment Challenges

47.7% Senior Level Roles

41.7% Mid Level Roles

10.6% Entry Roles

Source: AEC 2023 DFS
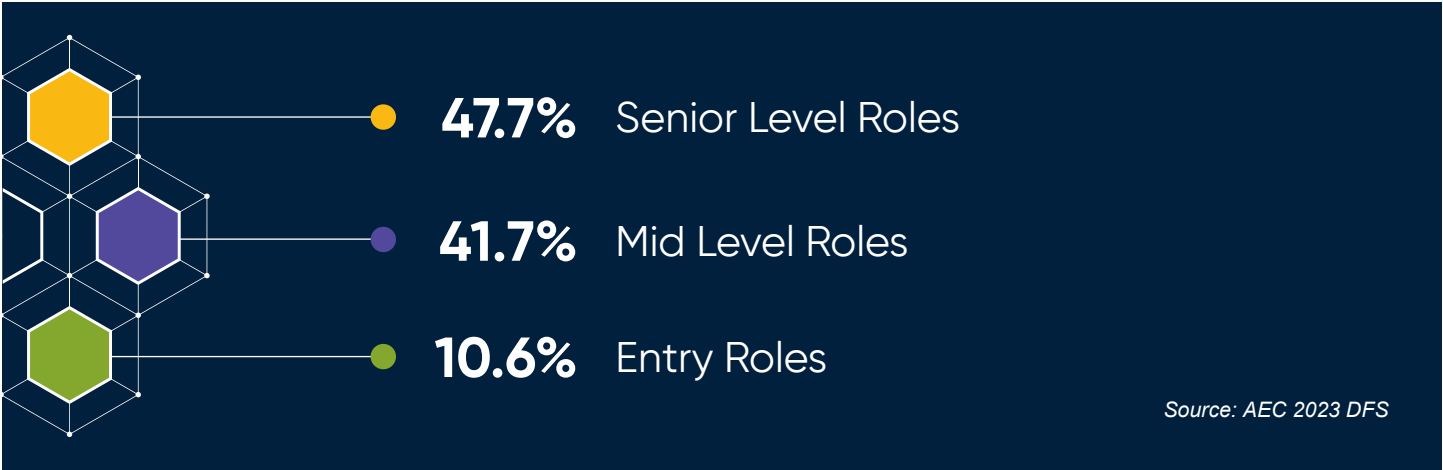
Figure 42: Has your company participated in any of the following programs?

The survey asked: "Has your company participated in any of the following early-stage accelerator, incubator, or business growth support programs? If you participated in a program provided by an organization not on this list, please provide the organization's name."

71% of survey respondents indicated that they had participated in one or more of the following early-stage accelerator, incubators, or business growth support programs in the 2023 survey.

Program	Percentage
None	29.5%
Startup TNT	25%
Other	17.4%
Platform Calgary Incubator Program	14.4%
Innovate Calgary	14%
Creative Destruction Labs - Rockies	14%
Alberta Catalyzer	14%
Plug and Play Alberta	12.9%
Growth X	10.6%
The A100	8.3%
Startup Edmonton	7.6%
Alberta Accelator by 500	6.4%
Valhalla Angels	4.2%
Community Safety and Wellness powered by Alchemist	3%
150 Startups	3%
SVG Ventures THRIVE	2.7%

Source: AEC 2023 DFS More than one selection available, total will not equal 100%

The top 5 "Other" program's that were mentioned by the survey respondents were the following:

Foresight Canada (5), Edmonton Unlimited (5), Trade Accelerator Program (TAP) (3), YYC Accelerator (Calgary) (2), Google for Startups Accelerator (2).

The full list is available in Appendix E.

Figure 43: Funding Amount by Those Who Participated in a Program and those who did not.

The following shows a coloration from Survey Respondents on the impact of participating in programs and generating funding:

- Companies who received no funding: 59% had participated in a program and 41% had not
- Companies who received less than $1M: 81% participated in a program and 19% had not
- Companies who received greater than $1M: 68% participated in a program and 32% had not

● Yes ● No

No Funding	Less than $1M	Greater than $1M
58.8% / 41.2%	81.1% / 18.9%	68.3% / 31.7%
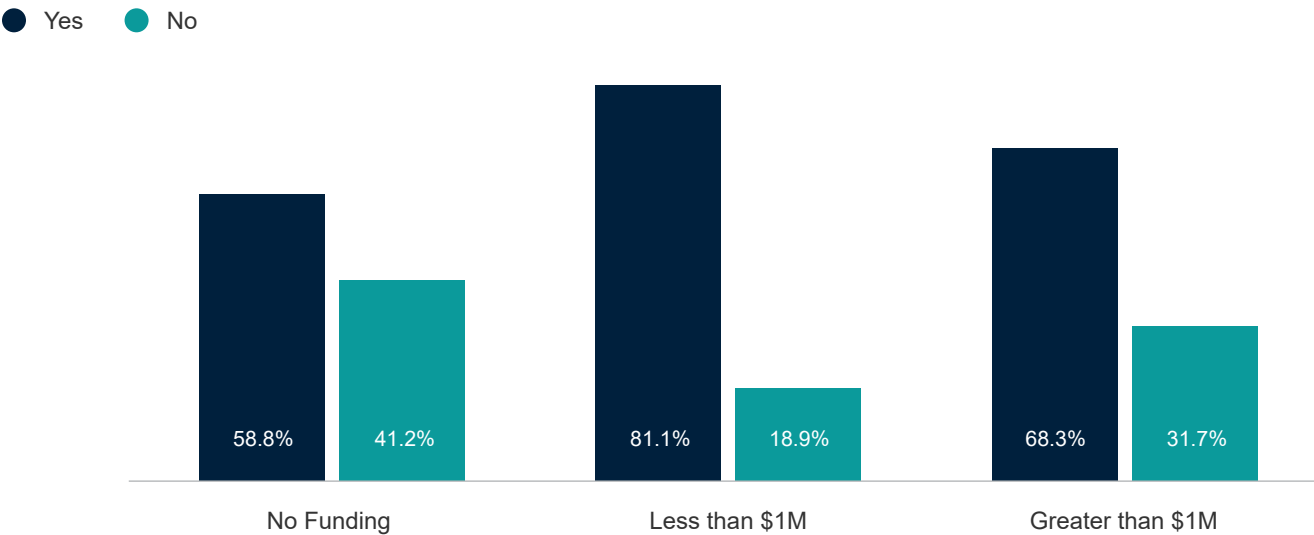
Source: AEC 2023 DFS Survey

5

The Resources
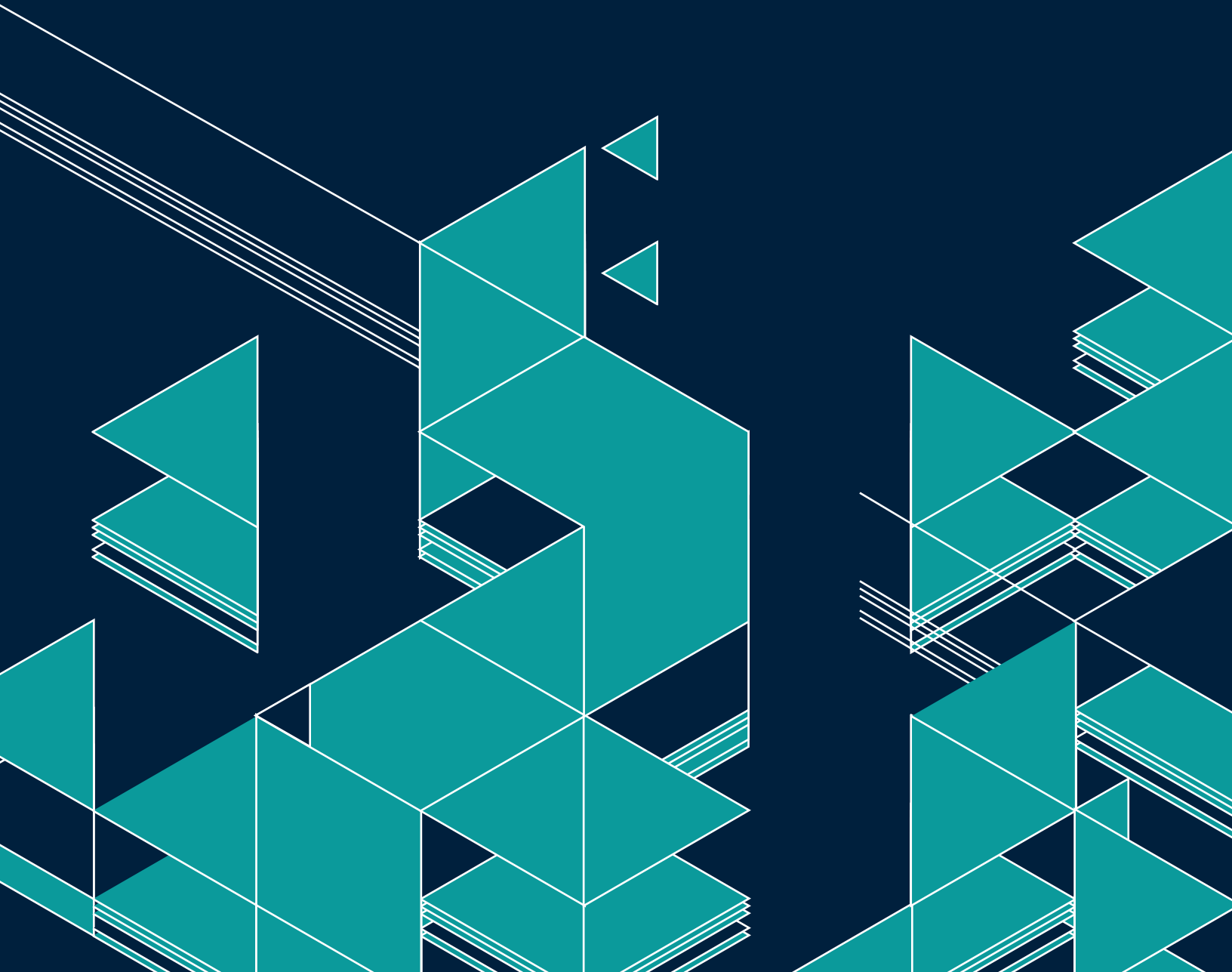
5.1 Overview

This section highlights revenues, profitability, and funding characteristics of the survey respondents.

28% of Survey Respondents are in the pre-revenue phase and 17% of companies had between $1 million and $9.9 million in revenue in their most recent fiscal year.

32% of Survey Respondents have achieved profitability, including 13% in the last two years.

74% of survey respondents are currently seeking funding.

54% of the Survey Respondents have undergone one or more rounds of fundraising, and 22% of those have raised three or more rounds of funding.

38% of Survey Respondents have raised 1 million CAD or more in funding to date.

62% of companies sourced their funding from Calgary, up from 53% in 2021, other key sources of funding are Edmonton at 33% of companies and Canadian provinces excluding Alberta at 35%.

32% of survey respondents have achieved profitability, including 17% who have achieved profitability in the last two years.

- Survey respondents who have yet to achieve profitability tend to have 1-4 employees (43%)
- 35% of survey respondents that have achieved profitability within 3 years indicate they have at least one female founders, with 40% of them having at least more than 50% female employees. Of the companies that have not yet achieved profitability, 67% had less than 50% of employees that were female.

68% of companies founded in the last 3 years (2021 – 2023) have not yet achieved profitability. The time it takes to realize profitability for survey respondents is similar in the 2021 survey.

Figure 44: Years to Profitability

Other	3.4%
More than five years	4.9%
Four to five years	1.9%
Three to four years	3.4%
Two to three years	4.5%
One to two years	5.3%
Less than one year	11.7%
It has not been profitable yet	64.8%

31.8% of respondents indicated that their business has achieved profitability.
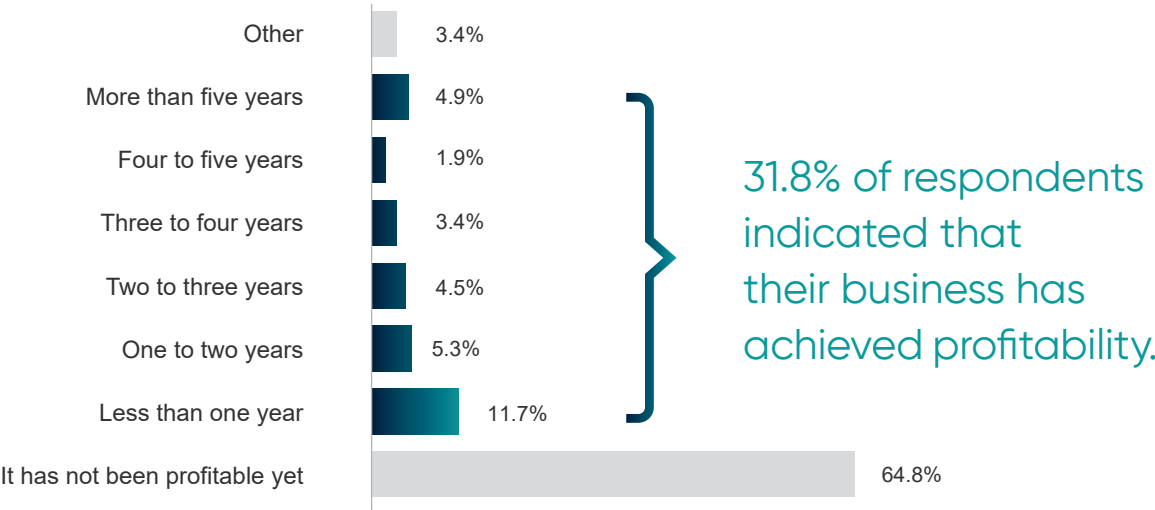
30% of Survey Respondents have achieved revenue between $100,000 and $1 million.

The number of companies indicating they have started generating revenue is comparable at ~72% in both the 2021 and 2023 study. Companies generating revenue of more than $1 million per year have fallen from 39% to 23% of respondents. This decline is likely a result of the population of companies surveyed, with younger companies usually generating less revenue.

Figure 45: Annual Revenue in Most Recent Fiscal Year ($CAD) by Startup Phase

Consistent with expectation, companies who indicated they are at a mature stage are generating revenue with 93% of them indicating that they are generating greater than $1 million annually, while 28% of startups are in a pre-revenue phase.

Pre-revenue

	Startup	Scaleup	Mature
Pre-revenue	28.4%	2.5%	
Up to $1M	18.8%	18.5%	7.1%
Greater than $1M	52.8%	79%	92.9%
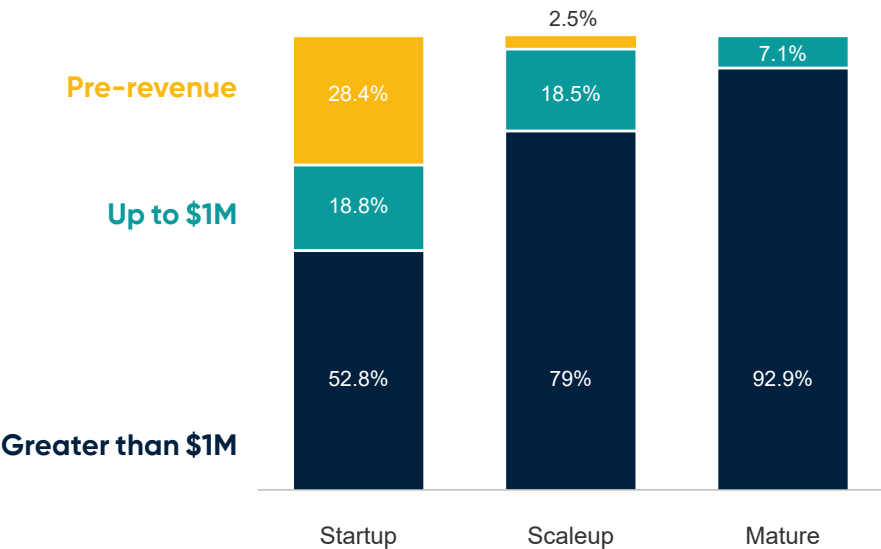
Source: AEC DFS 2023

5.2 Funding Stage

Figure 46: Rounds of Fundraising

54% of respondents indicated they have completed at least one round of fundraising. Of the group that indicated they completed one or more rounds of fundraising, 22% indicated they have completed three or more rounds.

Other; 1.9%

None; 43.9%

One or more; 54.2%

Funding Rounds

Number of Funding Rounds

1 — 45.5%

2 — 32.9%

3 — 14.7%

4 — 5.6%

5+ — 1.4%

64% of total survey respondents who have completed more than one round of funding have a founder with a technical background, and 55% have a founder with previous experience in establishing a company.

- Previous Startup
- Technical Experience

More than one round of funding: 55%, 64%

No funding: 54%, 75%

Source: AEC DFS 2023

Figure 47: Stage of Last Round of Funding (and change relative to 2021)

The number of pre-seed companies has increased from 18% in 2021 to 46% in 2023 indicating that a greater number of companies are in early stages. The trend is consistent with the observation that the age of Survey Respondent companies is younger than in 2021. Pre-seed is the most common round of funding achieved by Survey Respondents (46%), followed by seed stage at 36%. Only 11% of the respondents have raised a Series A or later stage financing.

- 2021
- 2023

Stage	2021	2023
Pre-seed	17.8%	29.9%
Seed	25.1%	23.5%
Series A	7.9%	4.9%
Series B	2.6%	1.9%
Series C		0.6%
Beyond Series C	1.7%	0.4%
Other	15.5%	4.2%

Source: 2023 AEC DFS & 2021 AEC DFS

5.3 Fundraising

Figure 48: Companies Currently Seeking Funding

Of the companies profiled, 74% have indicated they are looking to raise capital, an increase of 16% over the 2021 study (58%). Of the companies looking to raise capital, 53% have reached profitability.

Yes	No
73.9%	26.1%
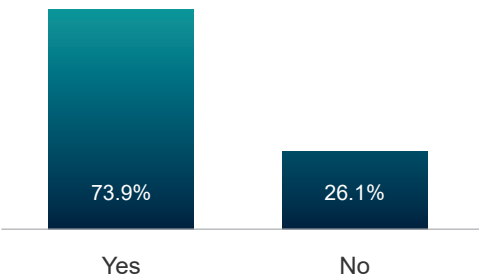
Source: 2023 AEC DFS

Figure 49: Total Funding to Date

None	Less than $100K	$100K - $499K	$500K - $999K	$1M - $4.9M	$5M - $14.9M	$15M - $29.9M	$30M - $49.9M	$50M - $99.9M	$100M - $199.9M
25.8%	9.8%	15.9%	10.2%	21.2%	9.8%	2.7%	1.5%	1.5%	1.5%
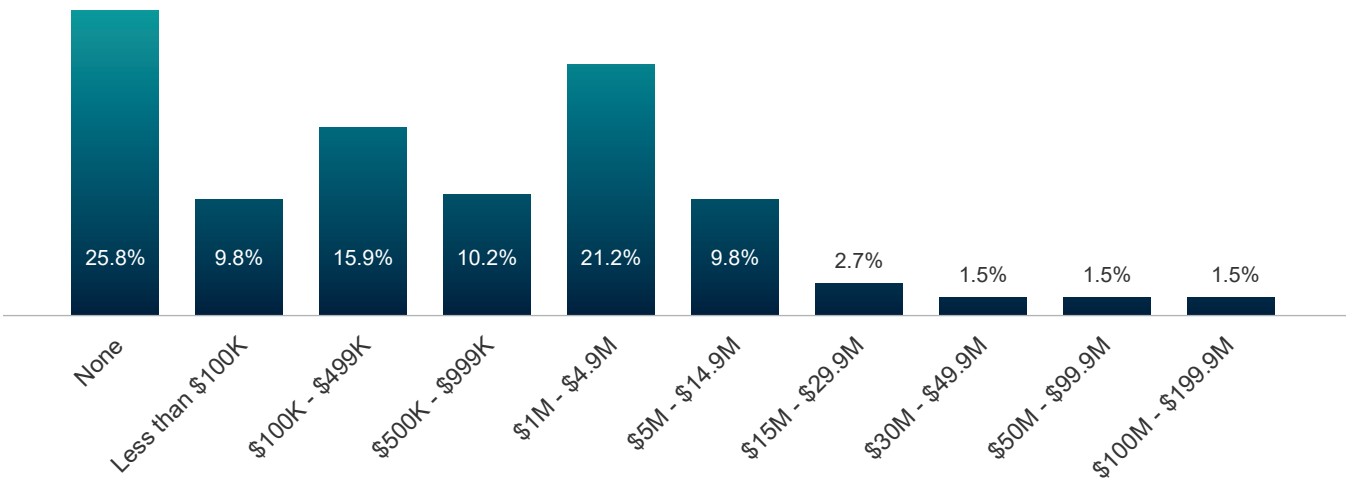
Source: 2023 AEC DFS

27% of Survey Respondents have raised $1 million CAD or more of funding in their most recent round.

For Survey Respondents who have received more than $1 million CAD in funding it is more common to have at least one female founder (41% compared to 35% of the overall population) and to have a founder that has previous experience in a startup (58% compared to 52% of the overall population).

Figure 50: Total Funding to Date by Age of Company

	Before 1999	2000 - 2005	2006 - 2010	2011 - 2015	2016 - 2020	2021 - 2023
$5M+	75%	33.3%	50%	36.4%	27.6%	3.3%
$1M-$5M		33.3%	37.5%	31.8%	30.6%	24.6%
Less than $1M	25%	33.3%	12.5%	31.8%	41.8%	72.1%

● Less than $1M   ● $1M-$5M   ● $5M+
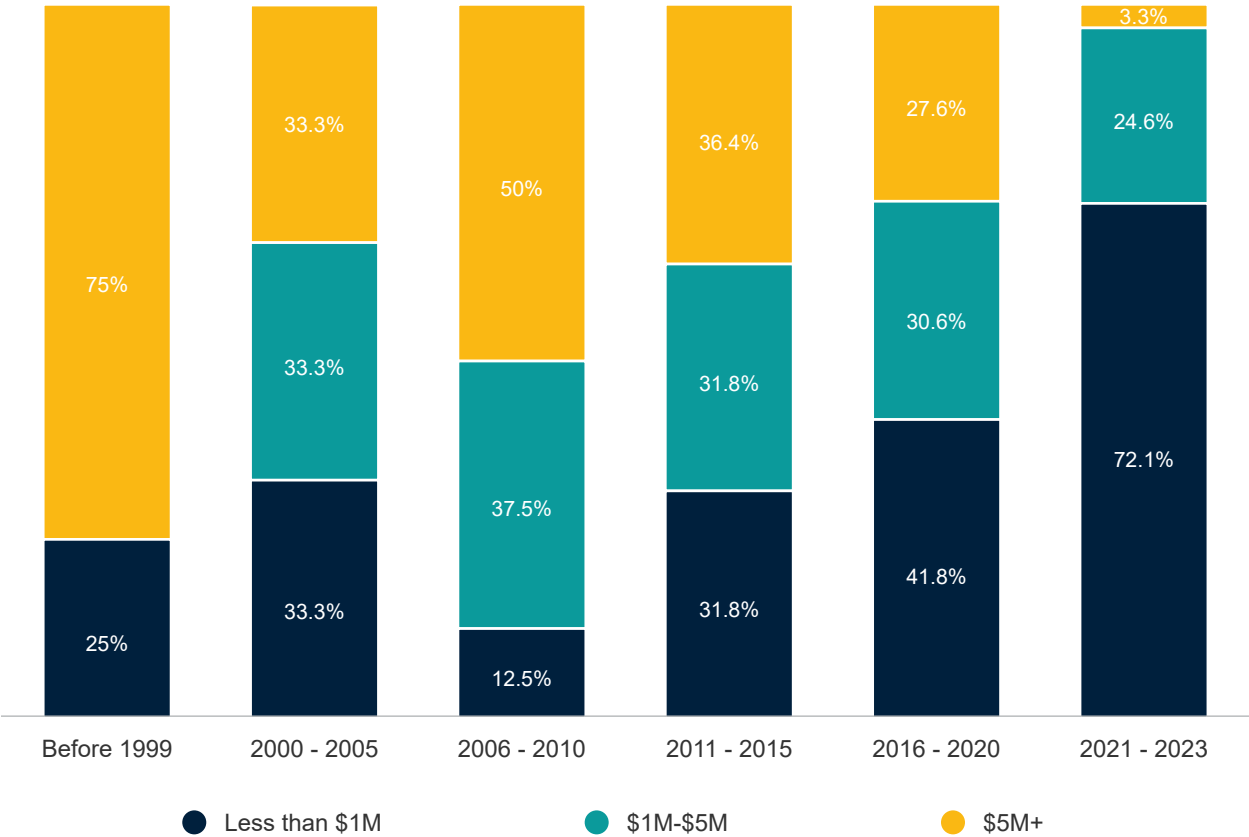
Source: AEC DFS 2023 – Total Funding By Age of Company (no funding removed)

Some of the major reasons highlighted for unsuccessful fund-raising attempts are lack of access to investors (24%) and lack of traction (25%). Investors not understanding the vision (19%) is cited as another common challenge faced by the companies.

Figure 51: Funding Raise ($CAD) in most Recent Round

27% of survey respondents indicated they had raised $1M or more in their most recent round of financing.

None	Less than $100K	$100K - $499K	$500K - $999K	$1M - $4.9M	$5M - $14.9M	$15M - $29.9M	$30M - $49.9M	$50M - $99.9M	More than $100M
34.5%	11.7%	19.3%	7.6%	17%	5.7%	1.5%	1.1%	1.1%	0.4%
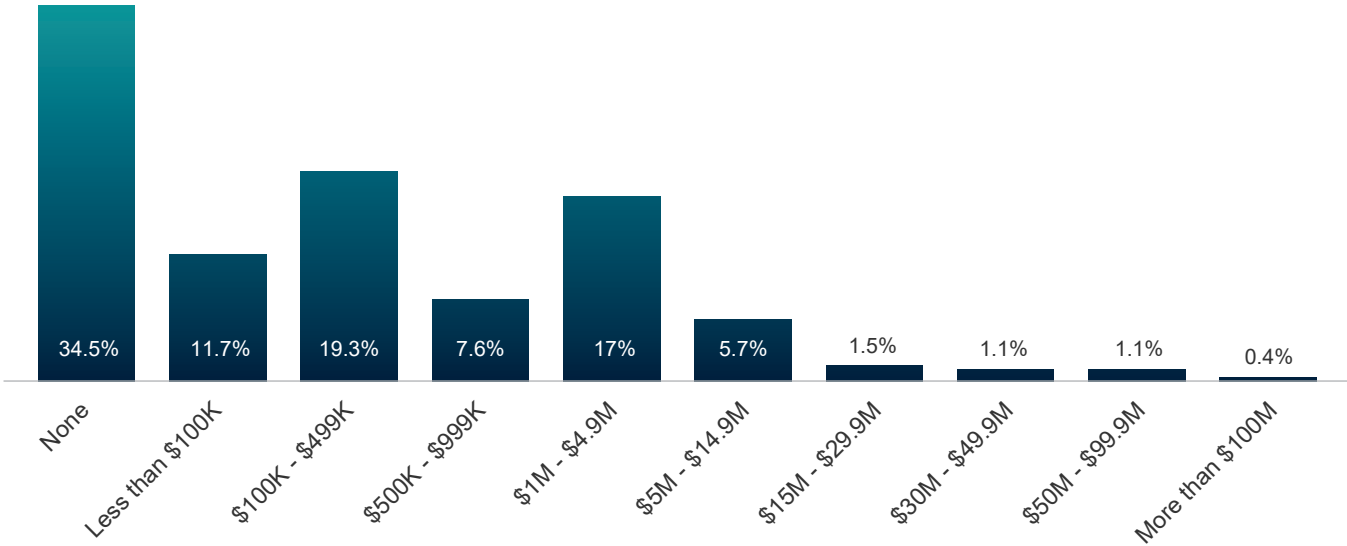
Source: 2023 AEC DFS

Figure 52: Time to Close Most Recent Funding Round

39% of survey respondents found that it took 6 months or less to close their most recent round of fundraising, a decline of 7% from 2021. Additionally, 8% of survey respondents had their most recent fundraising event last more than a year, a decrease from the 2021 survey results of 1%.
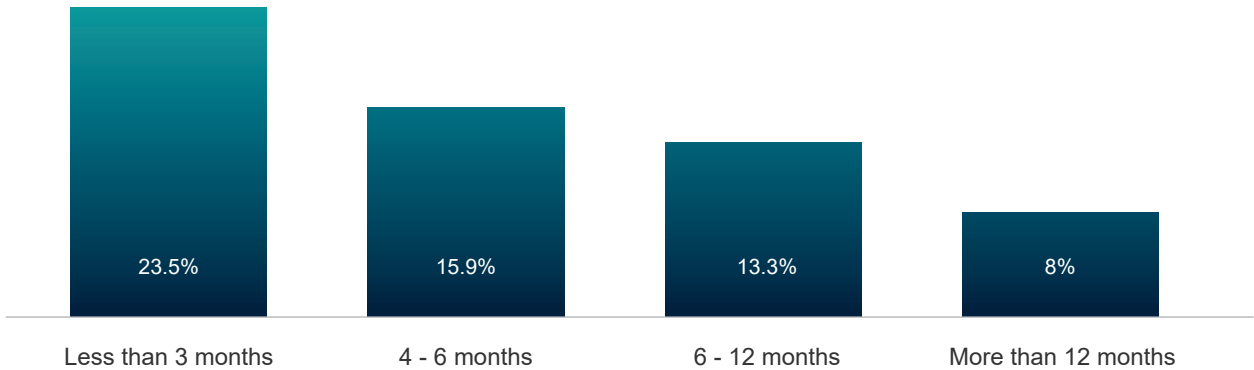
Less than 3 months	4 - 6 months	6 - 12 months	More than 12 months
23.5%	15.9%	13.3%	8%

Figure 53: Intended Fundraising in Next Round of Fundraising

Looking at the future, the majority of the respondents (51%) expect to raise $1 million or more in the next round of funding. 25% expect to raise a total of $1 – $4.9 million and 26% expect to raise more than $5 million in their next round of funding.

None	Less than $100K	$100K - $499K	$500K - $999K	$1M - $4.9M	$5M - $14.9M	$15M - $29.9M	$30M - $49.9M	$50M - $99.9M	More than $100M
14.8%	4.9%	13.3%	15.9%	25%	14.8%	5.7%	1.9%	1.9%	1.9%
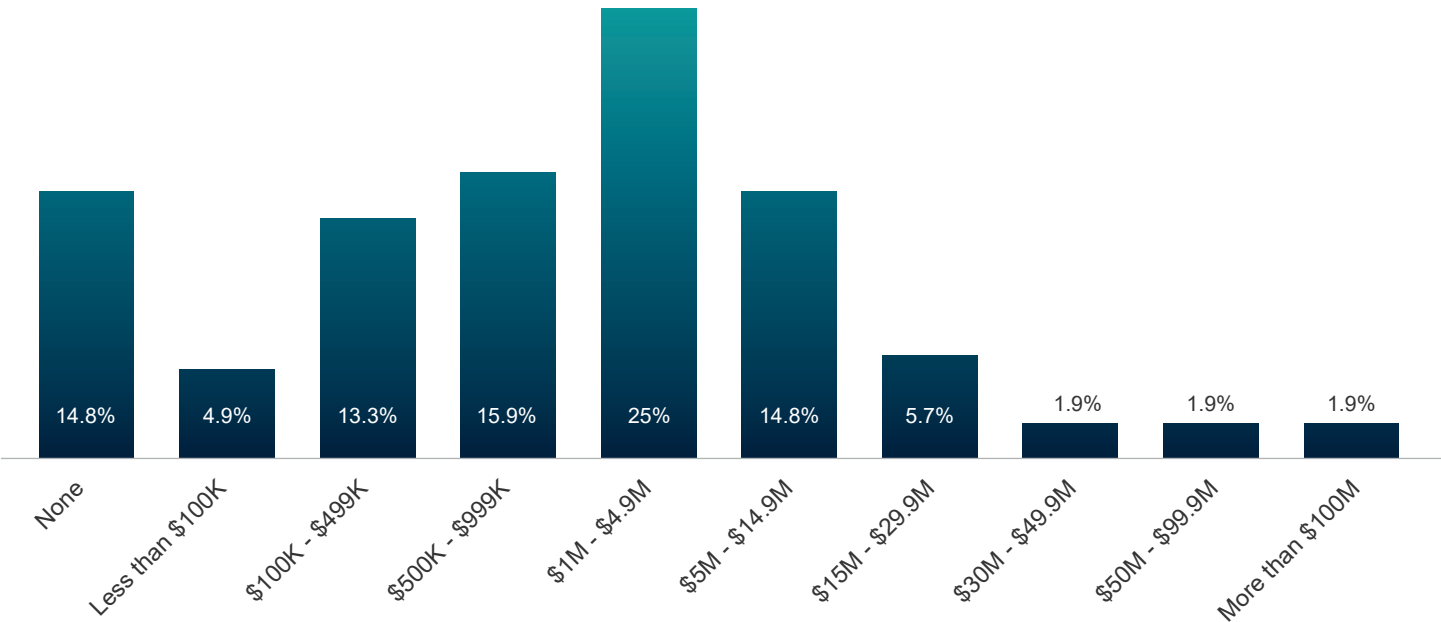
Figure 54: Intended Fundraising in Next Two Years

50% of respondents indicated they would like to raise $1 - $15 million in the next two years, and 21% aim to raise $15 million or more.

None	Less than $100K	$100K - $499K	$500K - $999K	$1M - $4.9M	$5M - $14.9M	$15M - $29.9M	$30M - $49.9M	$50M - $99.9M	$100M - $249.0M	More than $100M
14%	2.3%	6.8%	6.8%	31.8%	17.4%	11%	4.9%	1.1%	2.7%	1.1%
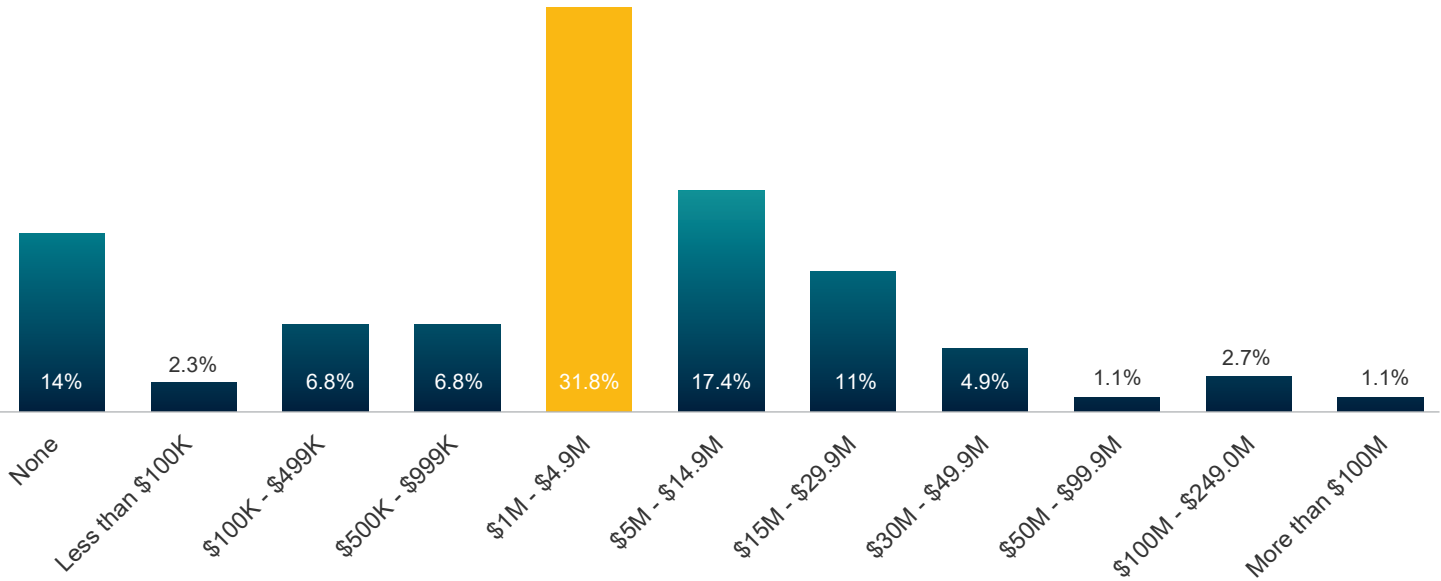
Source: 2023 AEC DFS

Figure 55: Type of Financing Options Used

The most common type of funding is Equity representing 44% of survey respondents. The remaining types of financing including, grants, hybrids and debt represent a relative equal share of the remaining financing obtained (20%, 19%, and 16% respectively).

Category	Percentage
Equity	44.3%
Other	27.3%
Grants	19.7%
Hybrids (i.e. convertible notes etc.)	18.9%
Debt	15.5%
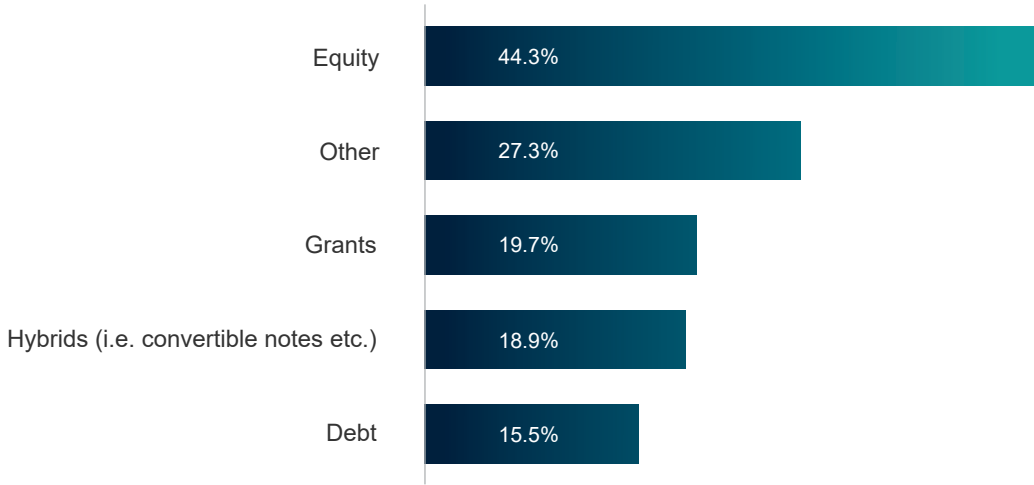
Source: 2023 AEC DFS; Respondents could select more than one funding option, therefore the results will total to greater than 100%

Figure 56: Funding Sources

70% of respondents indicated they have funded the operations of their business through personal savings with an additional 46% of respondents indicating that they have leveraged friends and family as a source of financing. Overall, the sources of funding from the 2023 survey are relatively consistent with the 2021 survey.

Grants and/or credits make up 50% of the survey respondents' funding sources. The type of grant or credit received is evenly split between Federal grants (22%), provincial grants (21%) and Scientific Research and Experimental Development (SR&ED), Investment Tax Credit (ITC) and R&D tax credits (19%) are the most common type of grants or credits.

Funding Source	Percentage
Personal savings	69.7%
Grants / Credits	50%
Angel Investors	41.3%
Friends and Family	45.5%
Venture Capital Investors	27.1%
Family Offices	17.8%
Banks	19.7%
Corporate Venture Capital	8.7%
Other	8.3%
Crowdfunding	1.9%

Donut chart (Grants / Credits breakdown):
- Federal Grant: 22.4%
- Provincial Grant: 20.9%
- Industry organization (e.g. CRIN, Foresight Canada, etc.): 13.4%
- SR&ED, ITC, R&D tax credits: 19.4%
- Prizes and Awards: 16.4%
- Other: 7.5%

Source: 2023 AEC DFS

Figure 57: Location of Funding Source

62% of respondents indicated they have raised funding in Calgary and 33% in Edmonton. 38% of survey respondents have indicated raising funds in the US while funding raised outside North America has been indicated by 19% of respondents.

Location	Percentage
In the Calgary Region	62.1%
In the Edmonton Region	33%
In another part of Alberta	10.6%
In another part of Canada	34.5%
In San Francisco / Silicon Valley	13.6%
In other parts of the USA	24.2%
In Europe	7.6%
In Asia	5.3%
In another part of the world	6.4%
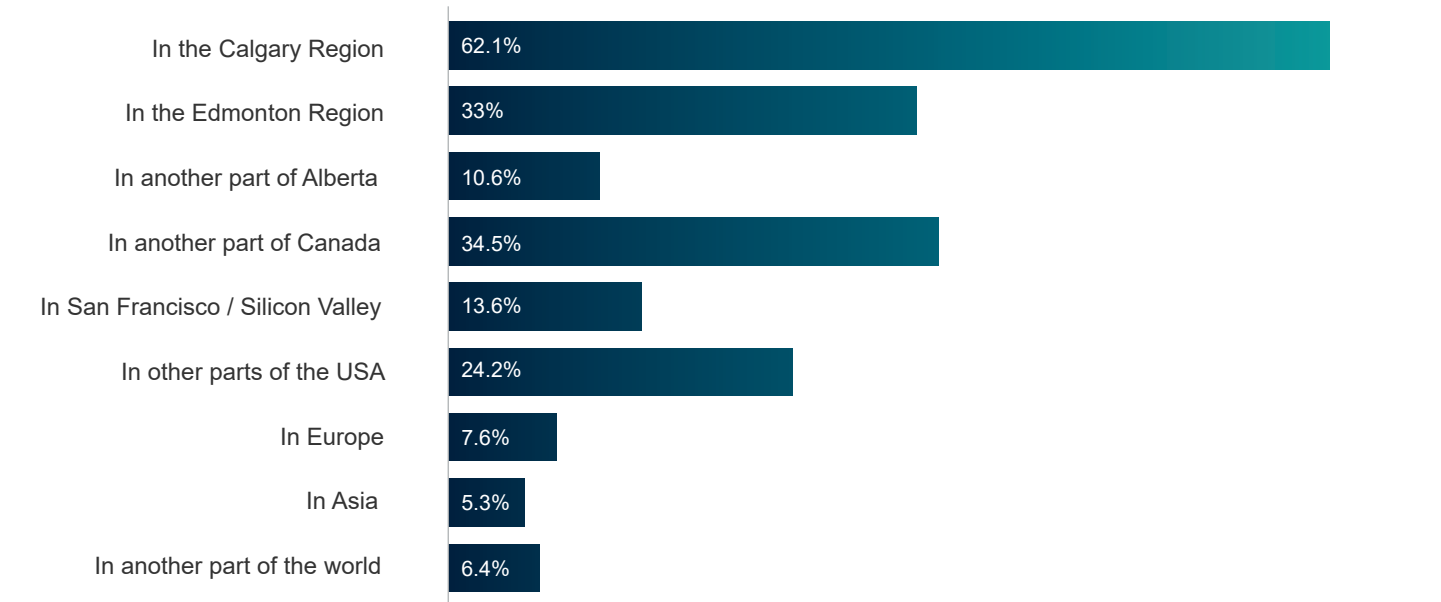
Source: 2023 AEC DFS; Data displayed is the percentage of total respondents where more than one location could be selected.

Figure 58: Where do you See Your Business in Five to Ten Years?

55% of respondents see their business exiting through IPO or acquisition in the next 5-10 years.

- Of the companies who see themselves being acquired within the next five to ten years, 51% have raised $1 million or more in funding, which is the highest percentage.
- Of the companies who see themselves exiting by IPO within the next five to ten years, 47% have raised $1 million or more in funding, which is the second highest percentage.

When taking a closer look at the companies who see themselves being acquired within the next five to ten years, their main sources of funding is personal savings (65%), grants/credits (60%), angel investors (56%), friends and family (51%) and venture capital investors (39%).

Source 2023 AEC DFS

- Other
- Lifestyle Business
- IPO
- Scale
- Acquisition

2.3%
6.1%
12.1%
42.4%
37.1%
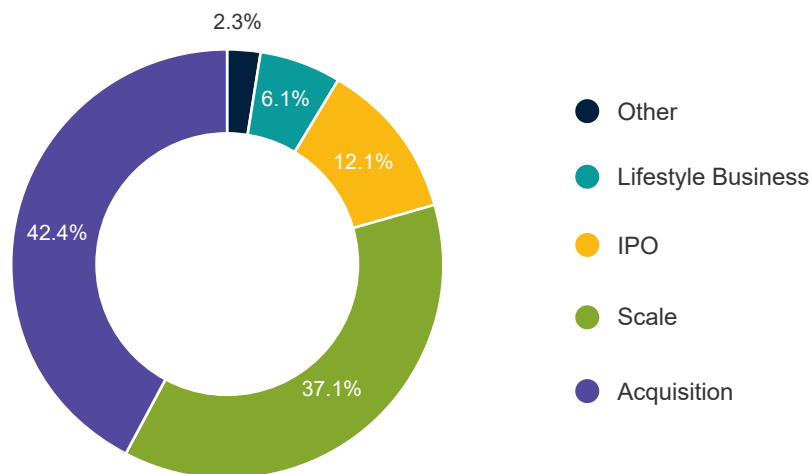
Appendix A

Glossary of Terms
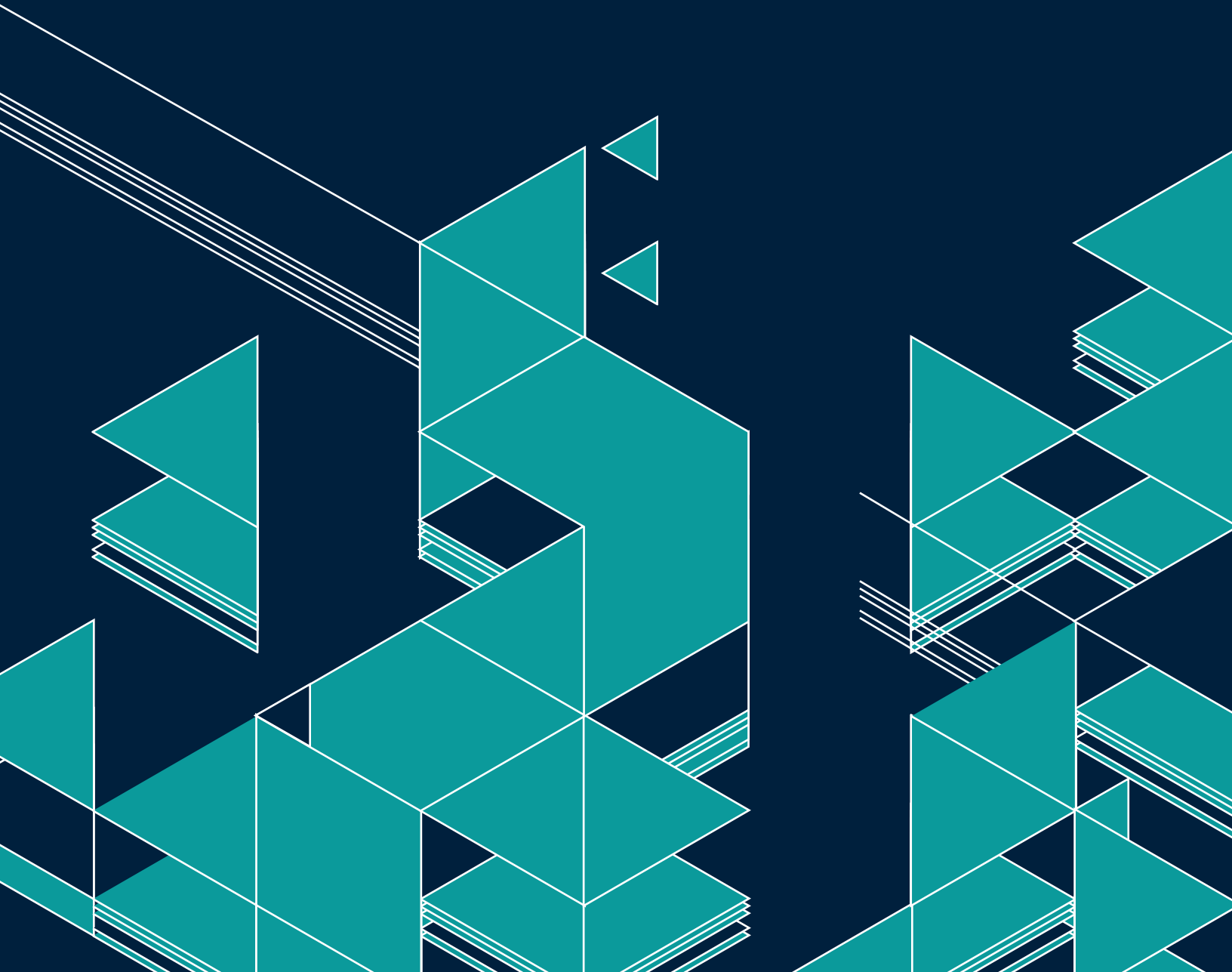
Key terms

2023 Study

The study of the technology and life and health science industries in Alberta for 2023.

Business Model

Describes the strategic approach to delivering value to a specific customer base, including direct to consumers (B2C), business-to-business (B2B), government engagements (B2G), and platforms serving multiple user groups simultaneously.

Business Productivity

Refers to the deployment of digital tools and software solutions designed to optimize operational processes, enhance efficiency, and drive productivity gains within organizations.

Customer Industries/Verticals

Specifies the market segments or sectors targeted by a technology product or service, tailored to meet those industries' unique needs and challenges.

**CVCA Industry Classifications –
Sector List and Tech Tags**

The Canadian Venture Capital and Private Equity Association (CVCA) represents the venture capital and private equity industry in Canada, encompassing a wide range of members from VC and PE firms to institutional investors and service providers. To better understand and track technology investments, the CVCA has introduced a classification system to help in organizing investments into specific industry sectors, like "CleanTech" or "Health and Life Sciences". While a sub-sector refers to a narrower classification within a larger industry sector (for example, "Biotechnology" within the " Health and Life Sciences" sector). "Tech Tags" specifically highlight the technological aspects or innovations used by companies within any sector. For example, "Artificial Intelligence" might be a tech tag relevant to companies in healthcare, finance, and consumer services alike, crossing the boundaries of traditional sub-sectors. These tags are especially useful in contexts like venture capital and private equity, where understanding technological dimensions of investments can influence decision-making and strategy development.

Deal Flow Study

The Deal Flow Study serves as a comprehensive guide for stakeholders, offering insights into the dynamics, strengths, and challenges of the technology and innovation sectors across various regions and industries in Alberta. It stands as the primary benchmark for assessing the vitality, expansion, and structure of Alberta's technology sector.

Digital Innovation Technology

Encompasses the broad spectrum of emerging digital technologies that drive innovation, transformation, and competitive advantage across all sectors of the economy.

Enabling Technology/Innovation

Identifies the core technological advancements and innovative practices that form the foundation of a product's value proposition, spanning digital, physical, and process innovations.

ESG

ESG (Environmental, Social, and Governance) denotes the trio of critical elements used to evaluate the sustainability and societal influence of a business or investment.

Identified Companies

The Technology companies which were found to be operating in Alberta in 2023.

Impacts

Refers to the significant outcomes and benefits of technology deployment, including environmental sustainability (ESG), business efficiency, cost reductions, and societal well-being.

NAICS[5]

The North American Industry Classification System (NAICS) is a classification framework used by businesses and governments in North America to categorize companies based on the type of economic activity in which they are engaged. This classification system was used in the 2021 DFS and was replaced by the CVCA Tech Tag classification for the 2023 DFS.1

Public Companies

Public companies are businesses whose shares are traded openly on stock exchanges, allowing anyone to invest.

M&A Transactions

M&A transactions, short for mergers and acquisitions, involve the consolidation of companies or assets.

Survey Respondents

Companies that completed the 2023 survey.

Technology Driven

Companies that deliver products or provide services based on technology that require(d) research and/or development efforts, excluding companies that only resell or distribute products manufactured by others or provide professional services using or implementing technology developed by others.

Startup Phases

Startup Development Phases[6]

Developed by Startup Commons, the Startup Development Phases offer a comprehensive framework to categorize startups within an ecosystem based on their current stage of development. This open standard aids in understanding and supporting the growth journey of startups.

Ideation Stage

This stage is characterized by entrepreneurial entities that possess ambitious ideas or concepts for products or services with the potential for scalability in a sufficiently large market.

Conceptualization Stage

At this point, companies begin to crystallize their purpose and direction, laying down a mission and vision accompanied by a preliminary strategy. This includes setting key milestones for the coming years to navigate their path forward.

Commitment Stage

This stage marks the formation of a dedicated, skill-diverse founding team united by a common vision, values, and mindset, signaling a serious commitment to the venture's future.

Validation Stage

Companies in this phase are actively refining their business models and testing market assumptions. They seek to validate their solutions, aiming to show early signs of user growth or revenue as proof of their concept's viability.

Scaling Stage

Focus shifts to aggressive growth at this stage, with companies emphasizing key performance indicators (KPIs) related to user acquisition, customer base expansion, revenue increases, and enhancing market share within a large or rapidly growing target market.

Establishment Stage

At this final stage, companies have achieved significant growth with the momentum expected to persist, indicating a stable and established presence in their respective markets.

Funding Rounds & Sources of Funding

Angel Funding

Individuals (angel investors) invest their personal funds into early-stage companies, offering financial support and sometimes mentorship.

Crowdfunding

Funding obtained via a crowdfunding platform, where individuals contribute financially without receiving equity, in return for early access to the company's products before they are launched to the general market.

Pre-seed and Seed Funding

Initial funding stages where startups receive capital to develop their product and business model, typically from angel investors or venture capital firms.

Venture Capital

Private equity provided to promising startups with potential for high growth, usually in exchange for equity. Venture Capital (VC) investments are structured in progressive rounds, commonly referred to as Series A, B, C, etc. These rounds help companies raise the capital necessary at different stages of their growth, with each series typically attracting different types of investors as the company matures and its valuation increases.

Other Funding Types

Convertible note

This is a short-term debt instrument that later converts into equity, often during a subsequent funding round. Rather than repaying the investor with interest, the startup offers equity, turning the investor into a shareholder.

Debt Financing

This involves borrowing capital with the commitment to repay the amount, plus interest, within a specified timeframe. It's commonly sourced from financial institutions like banks.

Equity Financing

Investors receive ownership shares in a company, signifying equity, in exchange for their financial investment. This method dilutes the ownership of existing shareholders but does not require repayment like debt financing.

Grants

Financial aid provided typically by governmental bodies or funded agencies, grants do not require repayment or equity from the receiving company. They are often awarded based on certain criteria or for specific projects.

Hybrid Financing

A mix of various funding methods, hybrid financing combines elements of debt, equity, and sometimes other funding types to tailor financial solutions for specific needs or stages of a company's growth.

---

[6] *Startup Development Phases,* startupcommons.org/startup-development-phases.html

Sectors & Verticals

Agribusiness/AgTech

Emphasizes technological and innovative approaches within the agriculture sector to improve efficiency, productivity, and sustainability in food production and agricultural practices.

CleanTech

Focuses on technologies aimed at reducing environmental footprints, promoting renewable energy, and enhancing efficiency in resource use to achieve sustainable ecological outcomes.

Agriculture, Food & Bio-resources

Dedicated to the technological advancement and innovation in the cultivation of crops, animal husbandry, aquaculture, forestry, and bioproducts, aiming to sustainably increase productivity and market accessibility.

Analytics/Big Data

Centers on leveraging advanced algorithms and computational techniques to analyze, interpret, and extract meaningful insights from vast and complex datasets, driving decision-making and innovation across sectors.

Artificial Intelligence/AI/Machine Learning/ML

Involves the development and application of algorithms and computational models that enable machines to perform tasks requiring human-like intelligence, learning from data to improve processes, services, and decision-making.

Energy and Mining

Relates to the exploration, extraction, and processing of natural resources, with an increasing focus on integrating sustainable practices and technologies to minimize environmental impact.

Health, Wellness, and Medical

Encompasses technologies and services aimed at improving healthcare delivery, patient outcomes, and wellness, including medical devices, health informatics, and biotechnology.

IT/Information and Communication Technology

Covers the development, implementation, and management of computer-based information systems, including hardware, software, internet technologies, and telecommunications.

Information & Media

Involves the creation, management, and distribution of information and cultural content through digital platforms, enhancing access, engagement, and communication.

Medical Device

Pertains to the development and manufacturing of electronic and mechanical instruments and devices designed to diagnose, treat, or prevent health conditions and diseases.

Industrial and Manufacturing/Other Industrials

Focuses on the application of innovative technologies to improve manufacturing processes, product design, and operational efficiency in the industrial sector, including traditional manufacturing and emerging industrial applications.

Pharmaceuticals

Relates to the research, development, and production of medicinal and therapeutic compounds to diagnose, treat, and prevent diseases, with an emphasis on innovation and efficacy.

Professional and Other Services

Includes firms providing expert knowledge, skills, and services in various fields such as finance, education, legal, and management, leveraging technology to enhance service delivery and client outcomes.

Appendix B

Detailed Approach & Methodology

The methodology for the 2023 Alberta Technology Deal Flow Study was developed into a five-stage structured process to provide a detailed and accurate analysis of Alberta's technology sector. This methodology aims to reflect the sector's dynamic nature and growth accurately.

Stage 1 - Defining Scope and Criteria

The initial stage established the study's scope, focusing on a diverse range of sectors. It delineated the criteria for companies to be included, emphasizing those offering products or services that necessitate research and/or development. Utilizing the Canadian Venture Capital & Private Equity Association's (CVCA) "Tech Tags," companies were categorized across various sectors like Information and Communication Technology and CleanTech, among others, see Appendix A.

Stage 2 – Data Collection

In collaboration with KPMG and the Alberta Enterprise Corporation (AEC), an extensive data collection process engaged over 34 sources to compile a comprehensive list of potential technology companies, resulting in over 15,000 records.

Stage 3 - Screening and Verification of Companies

This crucial phase involved verifying companies against the study's criteria, including being Alberta-based and offering a Technology Driven product or service. KPMG applied a thorough screening methodology, using various sources to confirm companies' operational status and headquarters location, and refining the selection to include only those companies fitting the "Technology Driven" criterion.

Companies fitting the study's criteria were meticulously verified, focusing on:

- Removing duplications
- Being based in Alberta
- Offering a technology-driven product or service

For each of the technology companies identified in Step 2, KPMG applied a screening methodology to identify any companies who should be removed from the population while sequentially assigning a primary and secondary Tech Tag to the population.

Companies that did not have significant operations in Alberta were excluded from the list. KPMG utilized various sources to determine the location of the companies' employees to make this assessment. For companies who did not have a disclosed city within the data initially collected, KPMG developed and implemented custom scripting solutions to collect and verify the companies' headquarters.

In refining the criteria used in 2021, a narrower view was taken when assessing a company's technology offering. Specifically, the following were scrutinized and removed from the 2023 List of Alberta Technology Companies if they did not meet the definition of "Technology Driven", see Appendix A:

- Engineering firms (who are not developing intellectual property)
- Consulting firms (accounting, law, IT, management consulting, environmental consulting, etc.)
- IT service companies (who are not developing software or applications)
- Digital marketing companies
- Energy services (who are not developing innovative or clean technology)
- Manufacturing companies (primarily focused on traditional manufacturing processes without a significant emphasis on developing or integrating innovative technologies into their products or operations)
- Retail, Resale and/or Distribution businesses

Additionally, through the screening process KPMG employed a variety of approaches to identify companies that were no longer in operation.

Unlike 2021, public companies were not removed from the list. While the objective of the 2023 Study is to provide relevant information to AEC and other early-stage investors, the inclusion of public companies provides additional insights into the development and maturity of the ecosystem in the province. For the same reason, companies that have been acquired by out-of-province companies, but that continue to have a significant presence in the province continue to be included.

The methodology for the 2023 Alberta Technology Deal Flow Study unfolds in a structured five-stage process, described below. This comprehensive approach ensures a robust analysis and accurate representation of Alberta's technology sector landscape, reflecting its dynamism and growth. A further detailed explanation on the study's methodology can be found in Appendix B: Detailed Approach and Methodology.

Stage 4 - In-depth Survey of Alberta-based Technology Companies

A detailed survey was distributed to companies in Alberta's technology sector, covering aspects like industry segmentation, company data, fundraising, and more. This resulted in just under 300 responses, with 264 companies contributing to the study's findings, ensuring the inclusion of the most relevant technology companies through thorough analysis and application of CVCA Tech Tags.

Stage 5 - Analysis and Presentation of Data

The final stage presented a detailed analysis of the collected data, examining the growth and changes within the sector, comparing survey results with previous reports, and analyzing collected data to offer a comprehensive view of the progress and challenges within Alberta's technology industry.

Identification of Differences Between the 2021 and 2023 Study Methodology and Approach

The following section compares the differences from the 2021 and 2023 study methodology and approach.

Scope and Criteria Definition

2021 Study: Initiated with a broad classification scheme, employing the North American Industry Classification System (NAICS) to ensure comparability across industries. It aimed to include a wide range of technology or technology affiliated companies.

2023 Study: Utilized Canadian Venture Capital & Private Equity Association's (CVCA) "Tech Tags" to categorize companies, with a shift towards a more specific classification focused on Technology Driven companies. The exclusion criteria became more refined, explicitly excluding resellers, distributors, and professional services firms that do not develop technology.

Data Collection

2021: Relied on a combination of databases, company listings from Alberta Enterprise, and previous years' master lists. This approach focused on identifying companies through a set of predefined attributes such as location, product offering, and ownership status.

2023: Expanded the data collection effort significantly, engaging with over 34 data sources and compiling over 15,000 records. This broader data collection strategy aimed to create a more comprehensive list of potential technology companies.

Screening and Verification

2021: Focused mainly on verifying companies based on location, privately held status, and technology-based product or service offering.

2023: Introduced a more detailed screening process, including the removal of duplicates and a finer scrutiny of a company's technology offering. This included excluding sectors not aligned with a strict definition of "Technology Driven," such as engineering and consulting firms, IT service companies not developing software or applications, and traditional manufacturing companies without significant innovative technology integration.

Classification and Analysis

2021: Segmented companies by customer industry, enabling technology (digital/soft tech vs. physical/hard tech), business model (B2B, B2C, etc.), and targeted outcomes (ESG outcomes, business productivity, etc.). This segmentation aimed to offer insights into the variety of technologies and markets addressed by Alberta's technology companies.

2023: Advanced the segmentation further by employing primary and secondary "Tech Tags" for each company, offering a more nuanced view of the technology landscape. The inclusion of public companies and those acquired by out-of-province entities marked a departure from the 2021 methodology, providing a broader perspective on the ecosystem's maturity and development.

Appendix C

Study Considerations
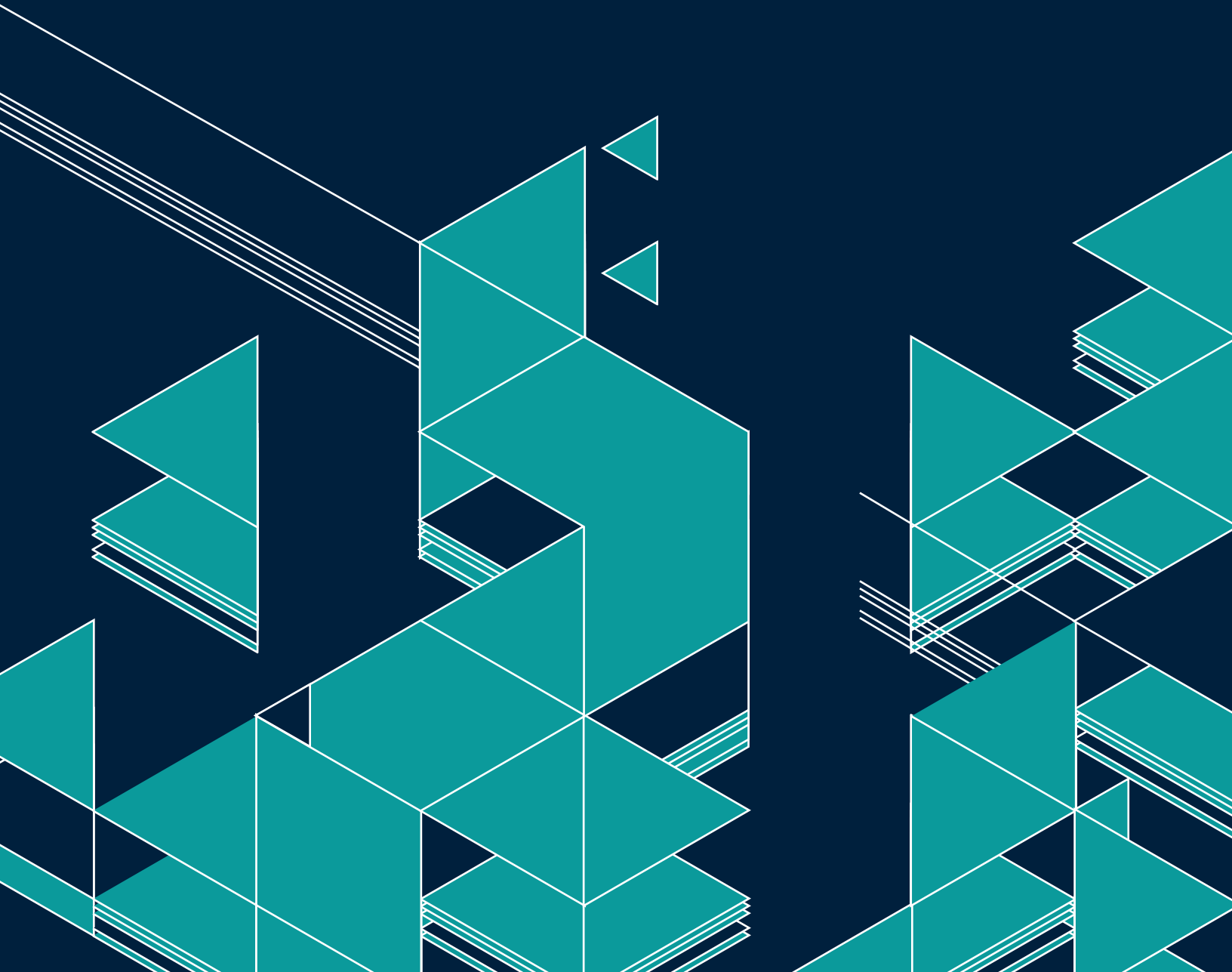
Study Considerations

The 2023 Alberta Technology Deal Flow Study, undertaken by KPMG in collaboration with Alberta Enterprise Corporation, is underpinned by key assumptions about the completeness, reliability, and accuracy of data from over 34 external sources. This comprehensive approach, integrating a myriad of data to accurately depict Alberta's technology-focused ecosystem, inherently assumes the data's integrity. It's crucial to recognize that any significant deviations from these assumptions could markedly affect our analysis. The data, exceeding 15,000 records, while extensive, was not independently audited or verified by KPMG, making our findings dependent on the data's provided quality without any form of assurance on the outcomes.

In the event of receiving new information or uncovering facts previously unknown, KPMG reserves the flexibility to adjust or withdraw this report accordingly. Our findings, pertinent as of the report's specified date, highlight the necessity of considering this analysis in its entirety to avoid skewed interpretations from partial evaluations.

The methodology employed faced limitations, notably in the subjective determination of CVCA "Tech Tags" for company categorization and the potential for overlooking companies not present in databases or referenced by ecosystem partners. Moreover, some firms might have been inaccurately identified as Technology Driven if technology was not their primary business focus.

The evolution from the 2021 study to the 2023 report involved significant methodological advancements:

- Diverse Data Sources: A marked increase in data collection efforts led to a broader aggregation of potential technology companies.

- CVCA "Tech Tags" Classification: A shift to a more focused and specific categorization system provided a refined view of technology-driven entities.

- Enhanced Screening and Verification: A detailed screening process was introduced, offering a nuanced perspective on what constitutes a "Technology Driven" company and potentially affecting the types and numbers of companies identified.

Such methodological refinements and the selective process based on professional judgment in tech tag allocation underscore the complexities of mapping Alberta's vibrant technology landscape. The transition in company numbers from the 2021 report's 3,083 to 2,378 in 2023 can be attributed to revised criteria for inclusion of companies, changes to classification, expanded data collection and verification efforts, and the inherent subjectivity in evaluating companies' relevance within the technology ecosystem.

These elements collectively highlight the study's evolving nature and the importance of viewing its conclusions within the framework of its methodological and data-related limitations. This acknowledgment is critical for understanding the potential for variation and the need for reinterpretation as new information emerges or as methodological approaches advance.

Appendix D

List of
Sources Used

List of Sources Used

The 2023 AEC DFS leveraged several data sources to build a comprehensive list of 2,378 companies. The following are some of those organizations:

- Accelerate Fund
- Alberta Enterprise Venture Capital Portfolio Fund Data
- Alberta IoT
- Alpaca VC
- Amplitude Ventures
- Azure Capital Partners
- Biohubx
- Builders VC
- Canadian Accelerator & Incubator Network – CAIN
- Creative Destruction Labs-Rockies
- CVCA Intelligence
- Edmonton Unlimited
- Evok Innovations
- Flying Fish Partners
- Halo Health
- Inovia Capital
- McRock Capital
- Panache Ventures
- Platform Calgary
- Plug and Play Calgary
- Relay Ventures
- Sprout Fund
- Start Alberta
- Startup TNT
- Technology Alberta
- The51
- Thin Air Labs
- Yaletown Partners

The following is a list of additional resources used to build a comprehensive list of Alberta tech companies:

- Briefedin.in
- Crunchbase
- Dealroom
- KPMG Canada
- Pitchbook
- Startup Genome
- Previous Alberta Technology Deal Flow Study lists

Appendix E

Other Programs Mentioned in the Survey

Programs in the "other" category mentioned by survey respondents:

- 321 Growth Academy (1)
- API (1), Accelerator YYC (1)
- Alberta Innovates (1)
- Alberta Innovation Rodeo TAP (1)
- Alberta IoT Fast track program (1)
- Asent Program (1)
- First Cohort (1)
- UCalgary (1)
- Calgary (1)
- Avatar Innovations (1)
- BBVA (1)
- Berkeley SkyDeck (1)
- Business Link (1)
- C51 (1)
- CBCC- Canadian black chamber (1)
- CETAC-West (1)
- Capital City Pilots (1)
- CleanTech Open NE (1)
- Collision 2023 Alpha Startup Showcase & Exhibitor (1)
- Communitech (1)
- DC Bank FinTech (1)
- Platform Calgary (1)
- DeltaClimeVT (1)
- E2i (1)
- ERIN (1)
- Empowered Startup incubator (1)

- EvoNexus (San Diego) (1)
- Fierce Founders (1)
- FinTech Cadence – Montreal (1)
- Founder Institute Accelerator (1)
- Haskayne ScaleUp (1)
- IBM–VilCap (1)
- Imaginal Ventures (1)
- MATTER.health (Chicago) (1)
- OKGN Summit 2022 (1)
- Platform Calgary Junction Program (1)
- Platform Discover (1)
- Propel (1)
- Public Sector Network Canada (1)
- R2SI Incubator (1)
- REACH Canada (1)
- SaaS Global (1)
- ScaleUp for CleanTech (1)
- Startup YMM (1)
- TEC Edmonton (2)
- Tecconnect (1)
- The 51 and/or M51 (2)
- UCEED (1)
- University of Lethbridge Agility Program (1)
- UBC HATCH (1)
- Startup150 (1)

Appendix F

Detailed Results
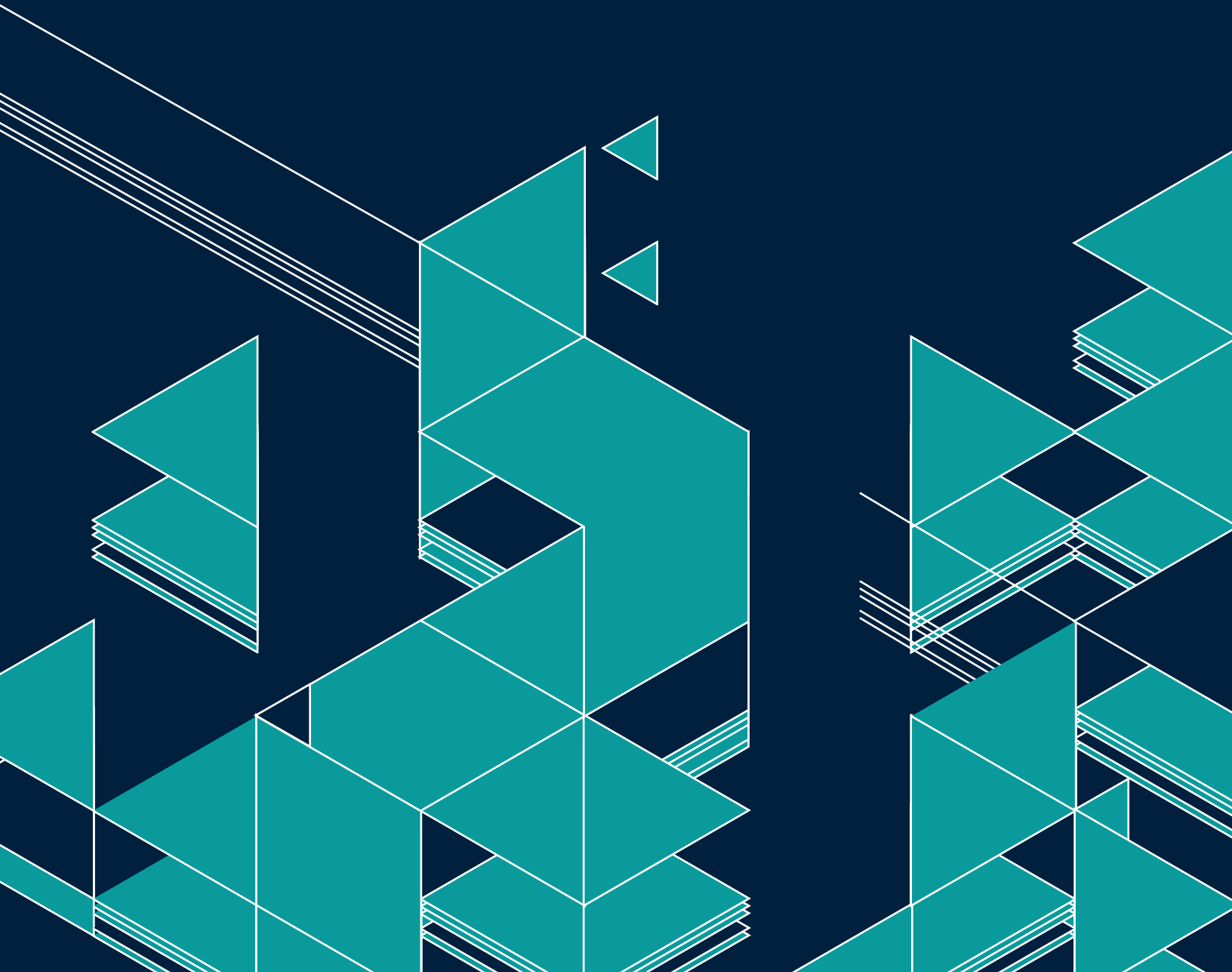
Alberta's Technology Sector Overview

Companies by industry

Table 1: Number and percentage of identified companies by summary industry classification

Industry	Share	Number
ICT (Information and Communication Technology)	*57%*	1,346
Health and Life Sciences	*12%*	295
Cleantech	*10%*	226
Industrial and Manufacturing	*8%*	194
Business Products and Services	*6%*	154
Agribusiness	*4%*	92
Other	*2%*	42
Energy and Mining	*1%*	29
Total	**100%**	**2,378**

Table 2: Number and percentage of identified companies by CVCA industry classification

CVCA Category and Sub Category		% of Total Subsector	% Of Total
1. ICT (Information and Communication Technology)			
a. Computer hardware & Services	69	*5%*	*3%*
b. eCommerce	55	*4%*	*2%*
c. Internet Software and Services, SaaS	1,209	*90%*	*51%*
d. Video game studio	13	*1%*	*1%*
	1,346		**57%**
2. Agribusiness			
a. Food & Beverage	27	*29%*	*1%*
b. Forestry	4	*4%*	*0%*
c. Advanced Agriculture	54	*59%*	*2%*
d. Greenhouses	7	*8%*	*0%*
	92		**4%**
3. Cleantech			
a. BioFuels	43	*19%*	*2%*
b. Energy Efficiency	128	*57%*	*5%*
c. Solar Power	23	*10%*	*1%*
d. Other Clean Technology	25	*11%*	*1%*
e. Emissions Reduction	3	*1%*	*0%*
f. Fuel Cell & Other Electric Technology	4	*2%*	*0%*
	226		**10%**
4. Health and Life Sciences			
a. Diagnostics	85	*29%*	*4%*
b. Drug Discover	62	*21%*	*3%*
c. Health Technology	10	*3%*	*0%*
d. Medical Device and Equipment	138	*47%*	*6%*
	295		**12%**
5. Other			
a. CPG	9	*21%*	*0%*
b. Automotive and Transportation	3	*7%*	*0%*
c. Other	30	*71%*	*1%*
	42		**2%**
6. Energy and Mining			
a. Oil and Gas	3	*10%*	*0%*
b. Mining	1	*3%*	*0%*
c. Energy - Oil & Gas Services	5	*17%*	*0%*
d. Oil & Gas Equipment	20	*69%*	*1%*
	29		**1%**
7. Industrial and Manufacturing			
a. Aerospace & Defense	2	*1%*	*0%*
b. Chemicals	7	*4%*	*0%*
c. Construction & Engineering	19	*10%*	*1%*
d. Construction Materials	2	*1%*	*0%*
e. Machinery & Equipment	53	*27%*	*2%*
f. Manufacturing	27	*14%*	*1%*
g. Other Industrial & Materials	2	*1%*	*0%*
h. Textiles	1	*1%*	*0%*
i. Electronic Test, Measurement & Monitoring	44	*23%*	*2%*
j. Industrial Automation	11	*6%*	*0%*
k. Automotive and Transportation	26	*13%*	*1%*
	194		**8%**
8. Business Products and Services			
a. Advertising, Marketing & PR	15	*8%*	*1%*
b. Consulting & Outsourcing	69	*36%*	*3%*
c. Other Business Products & Services	70	*36%*	*3%*
	154		**6%**
Total All Subsectors	**2,378**		

Companies by region

Table 3: Number and percentage of identified companies by headquarters location

City	% of Total	No. of Companies
Calgary	63%	1490
Edmonton	29%	687
Other	8%	201
Total	**100%**	**2,378**

Table 4: Number and percentage of identified companies by headquarters location and industry classification

	Calgary Region		Edmonton Region		Rest of Alberta	
Industry	**#**	**%**	**#**	**%**	**#**	**%**
(Count)						
ICT (Information and Communication Technology)	873	59%	380	55%	93	46%
Health and Life Sciences	152	10%	124	18%	19	9%
Cleantech	161	11%	42	6%	23	11%
Industrial and Manufacturing	96	6%	66	10%	32	16%
Business Products and Services	111	7%	34	5%	9	4%
Agribusiness	53	4%	22	3%	17	8%
Other	18	1%	19	3%	5	2%
Energy and Mining	26	2%	-	0%	3	1%
Total	**1,490**	**100%**	**687**	**100%**	**201**	**100%**

Companies over time

Table 5: Number of identified companies by year and headquarters location

	2023		2021		2018		2016	
Industry	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Calgary	1490	63%	1359	59%	767	62%	547	59%
Edmonton	687	29%	740	32%	394	32%	332	36%
Other AB	201	8%	217	9%	77	6%	48	5%
Total	**2,378**	**100%**	***2316**	**100%**	**1,238**	**100%**	**927**	**100%**

Table 6: Number of identified companies by year and classification

	2023	2021
Industry	No. of Companies	No. of Companies
ICT (Information and Communication Technology)	1,346	1,295
Health and Life Sciences	295	315
Cleantech	226	213
Industrial and Manufacturing	194	211
Business Products and Services	154	129
Agribusiness	92	72
Other	42	44
Energy and Mining	29	38
Total	**2,378**	***2316**

**This number is based on the new CVCA industry classification.

Detailed Survey Responses

		Location			Year founded						
	Total	Calgary	Edmonton	Other	Total	<1999	2000-2005	2006-2010	2011-2015	2016-2020	2021-2023
Q1: Where is your company headquartered?											
Edmonton Region	27%				27%	0%	1%	2%	3%	11%	9%
Calgary Region	70%				70%	2%	-	2%	5%	28%	33%
Other	4%				4%	-	-	0%	0%	2%	1%
Q2: In what year was your company founded?											
<1999	2%	2%	0%	-							
2000-2005	1%	-	1%	-							
2006-2010	4%	2%	2%	0%							
2011-2015	9%	5%	3%	0%							
2016-2020	41%	28%	11%	2%							
2021-2023	42%	33%	9%	1%							
Q3: Is your company developing:											
A combination of the two	32%	20%	11%	1%	32%	0%	0%	1%	4%	14%	13%
An innovative physical product	14%	10%	4%	0%	14%	0%	-	1%	2%	6%	5%
An innovative service	34%	26%	8%	1%	34%	-	0%	1%	2%	14%	17%
Existing product or service made or delivered in a new way	12%	9%	1%	2%	12%	0%	0%	1%	0%	4%	5%
Other	7%	5%	2%	-	7%	1%	-	0%	1%	2%	3%
Q4: Please indicate the technology utilized in your company's offering											
Digital innovation: Software	69%										
Digital innovation: AI / ML	45%										
Big Data	22%										
Digital innovation: Cryptocurrency	3%										
Physical innovation: Hardware	20%										
Innovation in how a product is designed	24%										
Innovation in how a business is structured	21%										
Physical innovation: Chemistry / Biology	13%										
Physical innovation: Materials	12%										
Other	7%										
Q5: Please indicate your company's business model. Please select all that apply.											
Business-to-Business (B2B)	84%										
Business-to-Consumer (B2C)	25%										
Business-to-Government (B2G)	12%										
Multi-sided platform	18%										
Q6: Please indicate the outcome of your company's product or technology on consumers. Please select all that apply.											
Cost savings	72%										
Business productivity	68%										
ESG impact - Social benefits	40%										
ESG impact - Environmental benefits	35%										
ESG impact - Governance benefits	19%										
Other	13%										
Q7: Which industries do you sell your product(s) or service(s) to? (Top 10 industries)											
Energy & Power	33%										
Healthcare / Life Science	30%										
Oil & Gas	27%										
Industrial & manufacturing	24%										
Business Products & Services	23%										
Consumer Products & Services	20%										
CleanTech	18%										
Financial	17%										
Agribusiness	17%										
Internet Software & Services	17%										
Q8: Does your company operate in the Health or Life Science sector?											
Yes	26%	17%	8%	1%	26%	-	0%	1%	2%	14%	9%
No	74%	53%	18%	3%	74%	2%	1%	3%	7%	27%	34%
Q9:Has your company been involved in transactions, such as acquisitions or mergers, in the last 24 months? Please select all that apply.											
Acquisition - Acquirer	6%										
Acquisition - Target	6%										
Merger	3%										
Other	2%										
None	88%										

Q9: Has your company been involved in transactions, such as acquisitions or mergers, in the last 24 months? Please select all that apply.

Acquisition - Acquirer	6%
Acquisition - Target	6%
Merger	3%
Other	2%
None	88%

Q10: What are the biggest immediate challenges your company is facing? Please select all that apply.

Access to capital / Funding	69%
Market access (i.e. reaching customers and scaling sales)	43%
Technical team - Developing / Acquiring / Retaining talent	30%
Sales team - Developing / Acquiring / Retaining talent	27%
Achieving profitability	24%
Achieving product - Market fit (i.e. a product which meets your mar	14%
Management team - Developing / Acquiring / Retaining talent	13%
Competition / New or Existing Market Entrants	9%
Other	6%

Q11: Would you classify your company as a start-up?

Start-up	63%	44%	16%	3%	63%	-	-	2%	3%	23%	34%
Scale Up	34%	24%	9%	1%	34%	1%	0%	2%	5%	17%	8%
Mature	3%	2%	2%	-	3%	1%	1%	0%	0%	1%	-

Q12: Was your company originally a spinoff from academic research

Yes	13%	8%	5%	1%	13%	-	0%	0%	1%	7%	5%
No	87%	62%	22%	3%	87%	2%	1%	4%	8%	34%	38%

Q13: Which of the following best represents the stage of your company's main product offering (as based on the Startup Commons Development Phases)?

Validating	42%	28%	13%	2%	42%	-	-	1%	2%	17%	22%
Scaling	39%	29%	9%	2%	39%	0%	1%	3%	6%	19%	11%
Establishing	8%	6%	3%	-	8%	1%	0%	0%	1%	3%	3%
Committing	4%	3%	1%	-	4%	-	-	-	-	2%	3%
Concepting	3%	2%	1%	0%	3%	-	-	0%	-	-	3%
Not sure / Prefer not to say	2%	2%	0%	-	2%	1%	-	-	-	1%	0%
Ideating	1%	1%	-	-	1%	-	-	-	0%	-	1%

Q14: Are you building your product on your own or outsourcing?

Building our own product in-house	63%	44%	16%	3%	63%	2%	1%	3%	5%	27%	26%
A mix of both	33%	22%	10%	1%	33%	0%	-	1%	5%	13%	14%
Outsourcing	3%	2%	0%	0%	3%	-	-	-	-	2%	1%
Not sure / Prefer not to say	2%	2%	-	-	2%	-	-	-	-	0%	1%

Q15: What was your company's annual revenue (in $CAD) in the most recent fiscal year?

Pre-revenue	28%	20%	8%	1%	28%	-	-	0%	2%	6%	21%
<$100K	19%	14%	5%	0%	19%	-	0%	-	2%	8%	9%
$100K to $500k	21%	13%	7%	1%	21%	-	0%	1%	1%	10%	8%
$500K to $1M	9%	7%	2%	0%	9%	-	-	-	1%	5%	3%
$1M to $9.9M	17%	13%	4%	0%	17%	1%	0%	2%	3%	9%	2%
$10M to $14.9M	0%	0%	-	-	0%	-	-	-	-	0%	-
$15M to $25M	3%	3%	1%	-	3%	-	-	0%	1%	2%	-
$25M to $50M	2%	1%	0%	0%	2%	1%	-	-	0%	1%	-
>$50M	0%	0%	-	-	0%	0%	-	-	-	-	-

Q16: How long has it taken for your company to achieve profitability (i.e. positive EBITDA)?

It has not been profitable yet	65%	46%	16%	3%	65%	-	-	2%	5%	29%	29%
Less than one year	12%	6%	5%	1%	12%	-	0%	1%	1%	3%	7%
One to two years	5%	5%	1%	-	5%	0%	0%	-	0%	1%	3%
Two to three years	5%	4%	1%	-	5%	-	-	-	1%	3%	1%
Three to four years	3%	3%	0%	-	3%	-	-	-	0%	2%	1%
Four to five years	2%	1%	1%	-	2%	1%	-	0%	-	1%	-
More than five years	5%	2%	2%	0%	5%	0%	0%	1%	1%	2%	-
Other	3%	2%	1%	-	3%	0%	-	0%	0%	2%	1%

Q17: Please indicate the most recent annual value (in $CAD) of your company's international exports.

<$100K	13%	10%	2%	1%	13%	-	-	0%	1%	9%	3%
$100K to $500K	8%	4%	3%	0%	8%	-	-	-	1%	4%	3%
$500K to $1M	5%	3%	1%	0%	5%	0%	-	0%	1%	2%	2%
$1M to $5M	6%	3%	3%	-	6%	0%	0%	1%	1%	3%	0%
$5M+	6%	4%	2%	-	6%	1%	-	1%	1%	3%	0%
Other	0%	0%	-	-	0%	-	-	-	-	-	0%
No exports	62%	45%	14%	2%	62%	-	1%	2%	5%	21%	34%

Q18: What are the destinations of your company's international exports? Please select all that apply

No exports	48%
USA	48%
Europe	21%
Asia	11%
Middle East	10%
South America	9%
Africa	8%
Other regions	5%

Q19: Is your company currently seeking funding?

Yes	74%	52%	20%	2%	74%	0%	-	3%	6%	30%	34%
No	26%	18%	6%	2%	26%	2%	1%	1%	3%	11%	8%

Q20: How much funding ($CAD) has your company raised to date?

Less than $100k	10%	8%	2%	-	10%	-	0%	0%	0%	3%	5%
$100k - $499k	16%	12%	3%	1%	16%	-	-	-	1%	8%	7%
$500k - $999k	10%	8%	2%	-	10%	0%	-	-	1%	5%	4%
$1M - $4.9M	21%	13%	6%	2%	21%	-	0%	1%	3%	11%	6%
$5M - $14.9M	10%	8%	2%	0%	10%	-	0%	2%	1%	6%	1%
$15M - $29.9M	3%	2%	1%	-	3%	0%	-	-	0%	2%	-
$30M - $49.9M	2%	0%	1%	0%	2%	-	-	-	1%	1%	-
$50M – $99.9M	2%	1%	0%	-	2%	-	-	-	1%	1%	-
$100M – $199.9M	2%	1%	0%	-	2%	1%	-	-	-	1%	-
None	26%	17%	8%	1%	26%	0%	-	1%	1%	4%	19%

Q21: Which of the following are funding sources to your company? Please select all that apply.

Personal savings	70%
Friends and Family	45%
Family Offices	18%
Angel Investors	41%
Venture Capital Investors	28%
Corporate Venture Capital	9%
Crowdfunding	2%
Grants / Credits	50%
Banks	20%
Other	8%

Q22: How many rounds of fundraising did your company go through?

0	44%	28%	14%	1%	44%	0%	0%	1%	2%	13%	27%
1	25%	19%	5%	2%	25%	-	0%	1%	1%	11%	11%
2	18%	13%	4%	1%	18%	1%	0%	1%	3%	8%	4%
3	8%	6%	2%	0%	8%	-	-	0%	2%	6%	-
4	3%	2%	1%	-	3%	-	-	1%	-	2%	-
5+	1%	0%	0%	-	1%	-	-	-	0%	0%	-
Other	2%	2%	0%	-	2%	1%	-	-	-	1%	0%

Q23: What was the stage of the last round of funding your company raised?

Pre-seed	30%	22%	6%	2%	30%	-	0%	0%	0%	12%	17%
Seed	23%	17%	5%	1%	23%	-	0%	2%	3%	13%	6%
Series A	5%	4%	1%	0%	5%	-	-	0%	2%	2%	-
Series B	2%	1%	1%	-	2%	0%	-	-	0%	1%	-
Beyond Series C	0%	0%	-	-	0%	0%	-	-	-	-	-
Other	4%	3%	1%	-	4%	-	0%	-	-	2%	2%
Not applicable	35%	23%	12%	1%	35%	1%	-	2%	3%	11%	19%

Q24: How much funding ($CAD) was raised in your company's most recent round of fundraising?

Less than $100k	12%	9%	3%	-	12%	-	-	0%	0%	4%	7%
$100k - $499k	19%	13%	5%	1%	19%	0%	-	-	3%	10%	6%
$500k - $999k	8%	5%	2%	0%	8%	-	0%	-	1%	3%	3%
$1M - $4.9M	17%	13%	3%	1%	17%	0%	-	2%	1%	10%	4%
$5M - $14.9M	6%	4%	2%	-	6%	0%	-	0%	2%	3%	0%
$15M - $29.9M	2%	1%	1%	-	2%	-	-	-	0%	1%	-
$30M - $49.9M	1%	1%	-	0%	1%	-	-	-	1%	0%	-
$50M - $99.9M	1%	1%	0%	-	1%	-	-	-	-	1%	-
More than $100M	0%	0%	-	-	0%	0%	-	-	-	-	-
None	34%	23%	10%	2%	34%	0%	1%	2%	2%	8%	22%

Q25: From what type of financing options did this fundraising come from? Please select all that apply.

Equity	44%
Other	27%
Grants	20%
Hybrids (i.e. convertible notes etc.)	19%
Debt	16%

Q26: How long did it take you to close your most recent round of fundraising?

4 to 6 months	16%	11%	4%	1%	16%	-	-	0%	2%	9%	5%
6 to 12 months	13%	10%	3%	-	13%	0%	0%	0%	3%	6%	3%
Less than 3 months	23%	16%	7%	1%	23%	0%	1%	2%	2%	9%	9%
More than 12 months	8%	5%	2%	0%	8%	0%	-	-	1%	5%	1%
Not sure / Prefer not to say	39%	28%	10%	2%	39%	1%	-	2%	2%	12%	23%

Q27: Have you attempted to fundraise over the past two years but were unsuccessful?

Yes	33%	23%	9%	2%	33%	-	-	1%	4%	17%	11%
No	67%	47%	18%	2%	67%	2%	1%	3%	5%	24%	31%

Q28: How much funding ($CAD) does your company intend to raise in your next round of fundraising?

Less than $100k	5%	3%	2%	-	5%	-	-	-	-	0%	5%
$100k - $499k	13%	10%	3%	-	13%	0%	-	-	0%	4%	8%
$500k - $999k	16%	10%	6%	-	16%	-	-	1%	1%	5%	9%
$1M - $4.9M	25%	17%	5%	3%	25%	-	-	2%	2%	11%	10%
$5M - $14.9M	15%	11%	3%	-	15%	-	-	0%	2%	10%	3%
$15M - $29.9M	6%	4%	2%	-	6%	-	-	0%	1%	4%	1%
$30M - $49.9M	2%	2%	0%	-	2%	-	-	-	1%	1%	-
$50M - $100M	2%	1%	1%	-	2%	1%	-	-	-	1%	-
$100M+	2%	2%	-	-	2%	0%	-	-	1%	1%	-
None	15%	9%	5%	1%	15%	0%	1%	1%	2%	4%	6%

Q29: Where have your funders been located? Please select all that apply.

In the Calgary region	62%
In another part of Canada	34%
In the Edmonton region	33%
In other parts of the USA	24%
In San Francisco / Silicon Valley	14%
In another part of Alberta	11%
In Europe	8%
In another part of the world	6%
In Asia	5%

Q30: How many full-time employees are in your company?

1 - 4	47%	32%	13%	2%	47%	-	1%	1%	2%	17%	26%
5 - 9	19%	15%	4%	-	19%	-	-	1%	2%	8%	8%
10-24	18%	12%	5%	1%	18%	-	0%	1%	2%	10%	5%
25-49	9%	7%	2%	-	9%	1%	-	2%	1%	5%	-
50-99	4%	2%	2%	-	4%	1%	-	-	0%	2%	-
100-199	2%	2%	-	0%	2%	-	-	-	1%	1%	-
200 - 499	0%	0%	-	-	0%	0%	-	-	-	-	-

Q31: Approximately what percent of your employees self-identify as: 2SLGBTQIA+

0%	80%	53%	23%	3%	80%	1%	1%	3%	8%	30%	36%
10%	14%	11%	2%	-	14%	1%	-	1%	-	9%	3%
20%	2%	2%	-	-	2%	-	-	0%	0%	2%	-
30%	2%	1%	0%	0%	2%	-	-	-	0%	1%	0%
40%	0%	0%	-	-	0%	-	-	-	-	-	0%
50%	1%	0%	0%	-	1%	-	-	-	-	-	1%
100%	2%	2%	-	-	2%	-	-	-	0%	-	2%

Q32: Approximately what percent of your employees self-identify as: Man

0%	6%	5%	2%	-	6%	-	-	-	2%	1%	4%
10%	2%	1%	1%	-	2%	-	-	-	-	2%	-
20%	3%	3%	0%	-	3%	-	-	0%	-	1%	2%
30%	4%	2%	2%	0%	4%	-	-	0%	-	3%	1%
40%	6%	4%	2%	0%	6%	-	0%	0%	0%	3%	2%
50%	19%	14%	4%	1%	19%	1%	0%	0%	1%	9%	7%
60%	10%	7%	2%	1%	10%	1%	-	0%	2%	3%	4%
70%	13%	9%	3%	1%	13%	-	-	0%	2%	7%	4%
80%	8%	6%	3%	-	8%	0%	0%	-	2%	4%	2%
90%	4%	2%	2%	0%	4%	-	-	0%	0%	1%	2%
100%	24%	17%	6%	0%	24%	-	-	2%	2%	6%	15%

Q33: Approximately what percent of your employees self-identify as: Woman

0%	26%	18%	8%	0%	26%	-	-	1%	3%	6%	16%
10%	5%	3%	2%	0%	5%	-	-	0%	1%	1%	2%
20%	9%	6%	3%	-	9%	0%	0%	-	2%	4%	3%
30%	14%	10%	3%	1%	14%	0%	-	0%	1%	8%	5%
40%	11%	8%	2%	0%	11%	0%	-	1%	2%	5%	3%
50%	17%	13%	4%	1%	17%	1%	0%	0%	1%	8%	7%
60%	5%	3%	2%	0%	5%	-	0%	-	0%	3%	1%
70%	4%	2%	1%	0%	4%	-	-	0%	-	2%	2%
80%	3%	2%	0%	-	3%	-	-	0%	-	1%	1%
90%	2%	1%	1%	-	2%	-	-	-	-	2%	-
100%	5%	4%	1%	-	5%	-	-	0%	0%	1%	3%

Q34: How many founders started your company?

1	30%	20%	8%	1%	30%	1%	-	1%	3%	10%	15%
2	40%	27%	11%	2%	40%	-	0%	3%	4%	16%	16%
3	16%	12%	3%	0%	16%	-	-	0%	2%	9%	5%
4	11%	8%	3%	-	11%	0%	1%	-	0%	5%	5%
5+	3%	2%	0%	-	3%	-	-	-	-	2%	1%
Other	2%	1%	0%	-	2%	0%	-	-	-	0%	1%

Q35: Does your company have at least one founder who:

Has a technical background in your industry?	69%	48%	19%	3%	69%	2%	1%	2%	4%	30%	30%
Has previous experience in a startup?	56%	41%	13%	2%	56%	0%	1%	1%	4%	23%	27%
Self-identifies as a visible minority?	39%	27%	10%	2%	39%	0%	-	2%	3%	17%	17%
Self-identifies as a woman?	37%	27%	9%	1%	37%	-	1%	2%	1%	18%	16%
Is a recent immigrant? (recent is defined as within the last five yea	14%	9%	4%	1%	14%	-	-	-	-	4%	10%
Self-identifies as 2SLGBTQIA+?	8%	6%	2%	-	8%	-	-	0%	1%	2%	4%
Self-identifies as an Indigenous person?	3%	3%	1%	-	3%	-	-	0%	1%	2%	1%

Q36: What is the current average age of your company's founders?

Less than 20 years	0%	-	0%	-	0%	-	-	-	-	-	0%
20 to 30 years	9%	6%	3%	0%	9%	-	-	-	-	2%	8%
31 to 40 years	33%	23%	8%	2%	33%	-	-	-	2%	14%	17%
41 to 50 years	38%	28%	9%	1%	38%	-	1%	2%	4%	17%	13%
51 to 60 years	16%	10%	5%	0%	16%	1%	0%	2%	3%	6%	4%
61 to 70 years	3%	1%	1%	0%	3%	1%	-	-	0%	1%	1%
Over 71 years	1%	0%	-	0%	1%	0%	-	-	-	0%	-

AEC

Alberta Enterprise Corporation

Email: info@alberta-enterprise.ca
www.alberta-enterprise.ca

To get more information on technology startups
in Alberta, visit: www.StartAlberta.com