



OKANAGAN TECH SECTOR REPORT

ECONOMIC IMPACT STUDY 2023 EDITION

POWERED BY  ACCELERATE
OKANAGAN



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The Okanagan Valley is a remarkable region renowned for its agriculture, wine, tourism, and thriving innovation community.

Letter From The CEO

We know the value of having strong data to provide a baseline, advocate for our region, and tell the story of the Okanagan tech community. That's why Accelerate Okanagan took the opportunity to work with KPMG and e-assess the economic impact of the tech sector for 2023. I am proud of this initiative and excited to share updated results with you via this report.

This is the fourth economic impact study that Accelerate Okanagan has conducted since 2013, and delighted to report that we continue to see positive growth in the number of jobs, tech companies, and total economic impact. Since our first study in 2013, the sector has grown from \$1.02B to \$4.98B in 2023.

We are continuously impressed by the collaborative nature of our tech sector and its meaningful contribution to the region's diverse economy. We look forward to continuing to be advocates for our region, telling the unique story of the Okanagan Valley, and are committed to fostering an environment where tech companies can scale, driving prosperity for generations to come.

We acknowledge the traditional, ancestral, unceded territories of the Secwépemc and Syilx peoples, on whose land we live, work, and play, and the 14 Chartered Métis Communities in our service area.



Brea Lake

Chief Executive Officer
Accelerate Okanagan

Report At A Glance

EXECUTIVE SUMMARY

As part of our ongoing mission to support entrepreneurs as they grow technology-driven businesses, Accelerate Okanagan (AO) has commissioned KPMG to conduct an analysis of the Okanagan tech sector. To do this, we invited Okanagan tech companies to participate in an online survey that gathered information about business structure, revenues, expenditures, and workforce, as well as the benefits and challenges of operating their tech company.

The ultimate goal of the study is to assist in talent attraction, companies, and investment in the region, as well as inform policymakers and the media. This report aligns with BC Stats' approach, embracing their classification of sub-sectors and high-tech industries through the North American Industry Classification System. While defining what qualifies as "tech" is a complex and ever-evolving challenge, our commitment to this method ensures consistency and accuracy in the analysis, offering a clear picture of the sector's true impact.

Through the 2023 study, it's clear that the Okanagan isn't just keeping pace with global trends—it's setting them. The region's tech ecosystem is a powerful engine of economic growth fuelled by connectivity and collaboration. Companies across subsectors like advanced manufacturing, clean-tech, and life sciences drive innovation and create high-value jobs. As of 2023, the region boasts 787 tech companies, producing an economic impact of 32,645 jobs and a remarkable \$4.9 Billion GDP contribution annually to the BC economy.

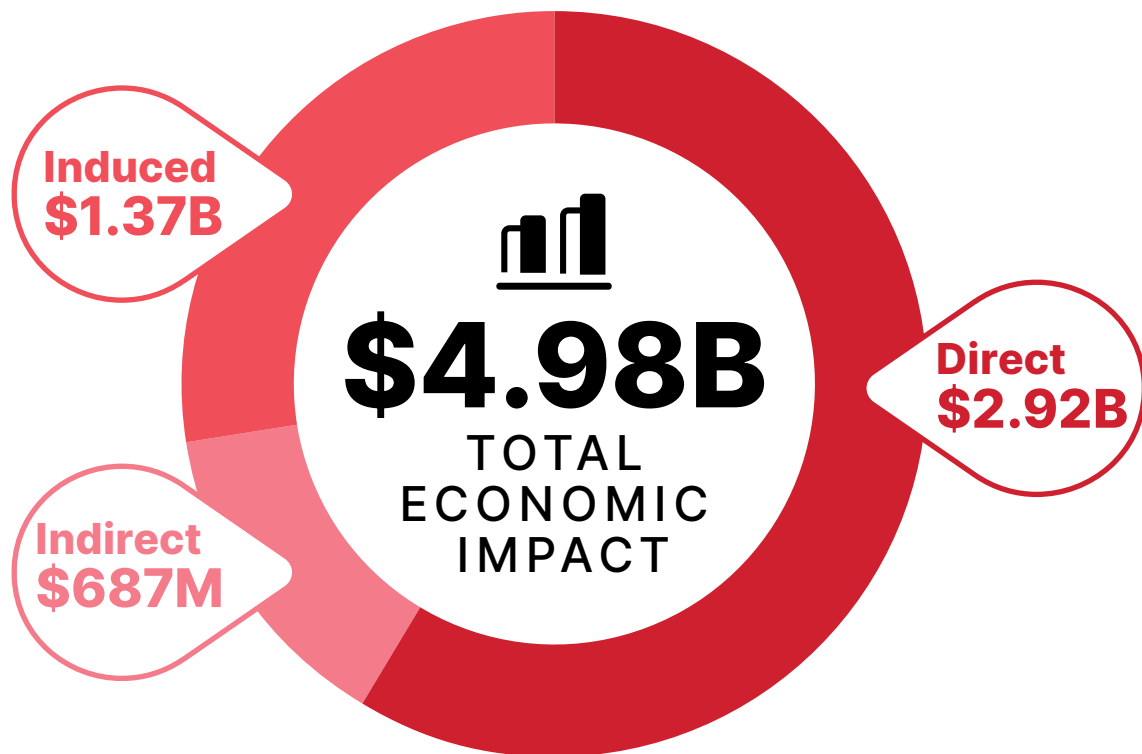
Connectivity, collaboration, and lifestyle are key to this thriving sector. Companies boast a 58% profitability rate and a workforce brimming with young talent, where nearly half of all employees are under 35 years old. Tech companies in the Okanagan are not just local players; they are global connectors, with 61% having significant relationships with suppliers or customers as far-reaching as Ontario, California, and beyond. This vast network underscores the Okanagan's growing influence and strategic importance as a hub for technological innovation. The sector's optimism is palpable, with 65% of firms expecting to increase their team sizes within the next year—a testament to the region's robust economic outlook.

Methodology

The economic impacts of the Okanagan tech sector are measured through the use of Statistics Canada's input-output model. The analysis is based on inputs from an online survey conducted from May 27th, 2024, to July 8th, 2024, with 104 respondents. For the purposes of this report, the Okanagan Region encompasses the following Census Divisions:

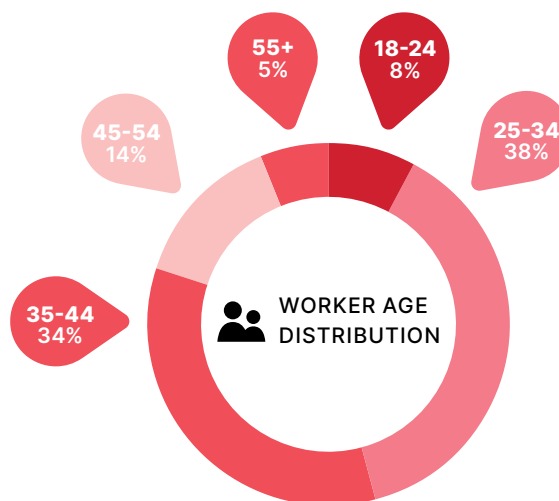
- Central Okanagan
- North Okanagan
- Okanagan-Similkameen
- Columbia-Shuswap

The analysis of the economic impacts considers the various types of expenses incurred by tech companies in the Okanagan. There are two main categories of expenditures leveraged in the model: Operating Expenses (OPEX) and Capital Expenses (CAPEX). See the appendices for a complete summary of methodology, terminology, and regional notes.



KEY METRICS	
32,645	Jobs Supported
787	Tech Companies
\$3.16B	Salaries & Wages

GOVERNMENT REVENUES	
\$97M	Municipal
\$408M	Provincial
\$506M	Federal



KEY SUBSECTORS

- Advanced Manufacturing
- Aerospace & Aviation
- Agritech
- Artificial Intelligence (Ai)
- Cleantech
- Gaming & Animation
- Life Sciences
- Software As A Service





ECONOMIC IMPACT

BY THE NUMBERS

High Tech In British Columbia

A STORY OF GROWTH

British Columbia (BC) is a well-established hotbed for scaling tech companies. The BC high-tech industry has been on a powerful and sustained growth trajectory, seeing a positive increase in GDP year over year. BC accounted for 13.4% of Canada's tech sector revenues in 2021, this is notably higher than the 9.7% BC accounted for in 2010.

LONG TERM GROWTH: 2010 - 2021

Business
Count
Growth
31%

GDP
Growth
68%

Positive
Year Over
Year Growth

INDUSTRY RESILIENCE: 2020 - 2021

Revenue
Growth
16.4%

Salaries
& Wages
Growth
24.2%

Business
Count
Growth
3.5%

All information on this slide is sourced from BC Stats.

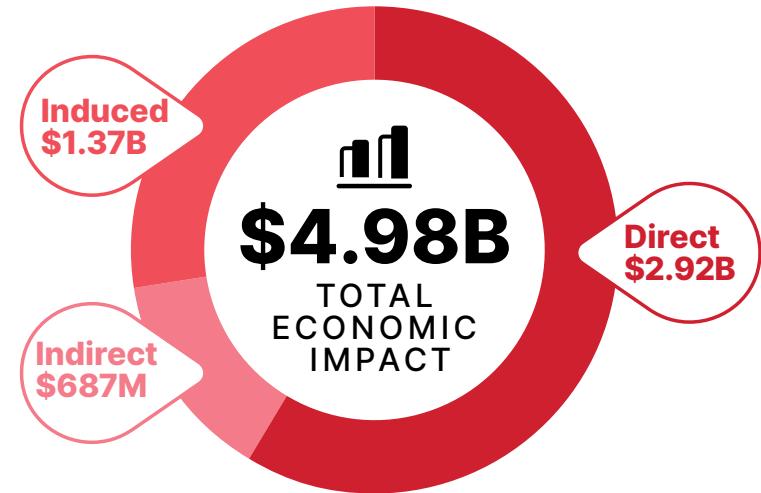


Impact Of Okanagan Tech

TOTAL ECONOMIC IMPACT

The total economic impact stemming from the Okanagan tech industry is estimated at \$4.98B over the 2023 period. This represents the net value-add of the operating and capital expenditure. These activities are produced by 787 companies and support 32,645 jobs (in-person years) over the 2023 year.

In addition, these expenditures would generate additional government revenues through taxes on personal incomes, taxes on products, and taxes on production. Tax revenues over the period are estimated at \$506M for the federal government, \$408M for the provincial government, and \$97K for the municipal governments. These figures demonstrate how the Okanagan Tech sector contributes to public finances at all levels, reinforcing its role in driving economic growth and prosperity.



KEY TECH SECTOR METRICS

787
Tech
Companies
2023 Period

\$3.16B
Salaries &
Wages
Before Income Taxes

32,645
Jobs
Supported
In-Person Years

Simulations by Statistics Canada based on data from survey.

GOVERNMENT REVENUES

\$97M
Municipal

\$408M
Provincial

\$506M
Federal

Simulations by Statistics Canada based on data from survey.

Okanagan Tech Expenditures

OPERATING EXPENSES

These expenses are incurred to support day-to-day operations. The economic spinoffs stemming from the operating expenditure activities are estimated at \$4.7B in BC over the 2023 period. This represents the recurrent net value-added operating expenditure. Operating expenditure activities would support 31,156 jobs (in person-years) over the 2023 year.



Simulations by Statistics Canada based on data from survey.

CAPITAL EXPENSES

These are expenses associated with acquiring or upgrading fixed assets. The economic spinoffs stemming from the capital expenditure activities are estimated at \$260M in BC over the 2023 period. This represents the non-recurrent net value-added capital expenditure. Capital expenditure activities would support 1,489 jobs (in person-years) over the 2023 year.



Simulations by Statistics Canada based on data from survey.

Impact By Region

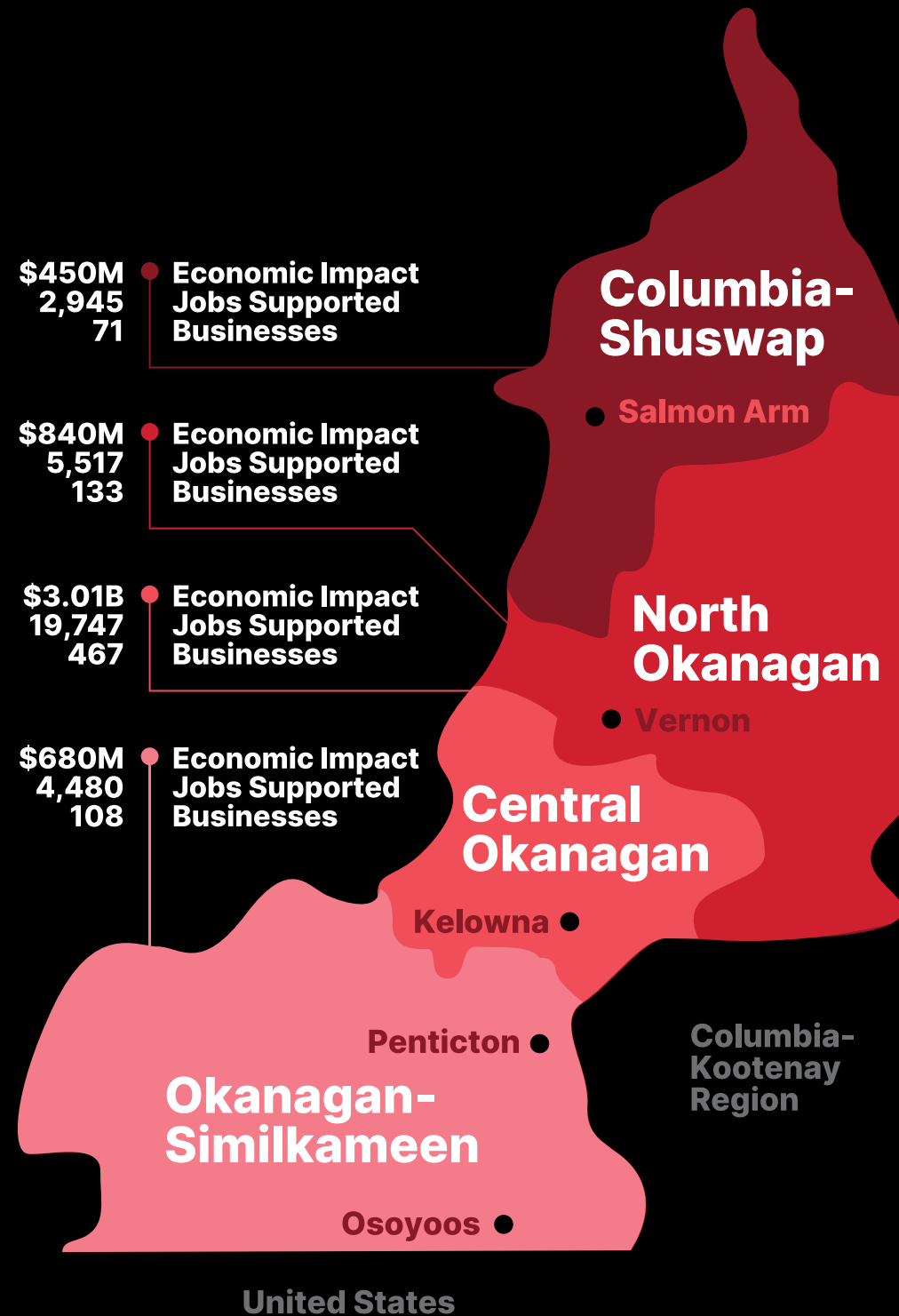
REGIONAL SECTOR SHOWCASE

The total estimated economic impact is parsed across four Census Divisions, offering a snapshot of each area's significant contribution to the region's tech-driven economy. This analysis provides a deeper understanding of the economic landscape across the Okanagan and the contribution of each area.

The Okanagan Region encompasses the following four Census Divisions:

- Central Okanagan
- North Okanagan
- Okanagan-Similkameen
- Columbia-Shuswap

These boundaries, carefully defined and mapped out, reflect the scope of Accelerate Okanagan's service area. Note that only a portion of the Columbia-Shuswap Census Division is included. See appendix for details.







**OKANAGAN
TECH**
A CLOSER LOOK

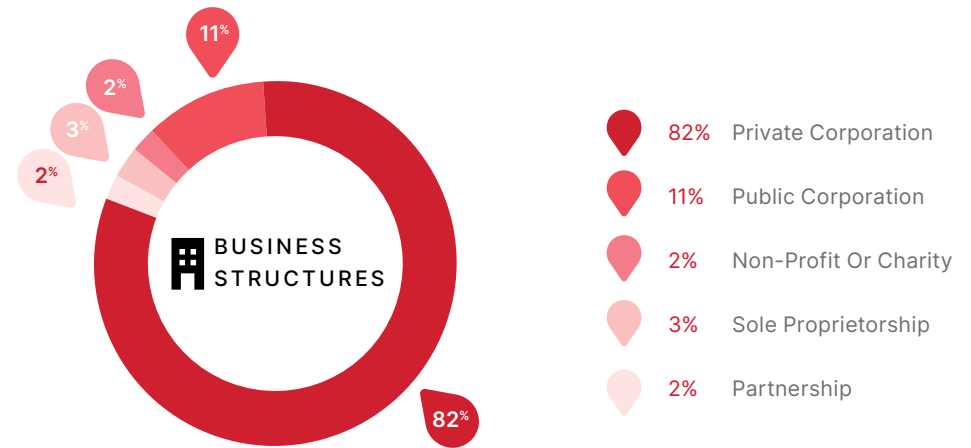
Business Outlook

TECH STRUCTURES

The Okanagan tech sector is thriving, with 82% of its businesses structured as corporations, many of which are privately held. This mirrors a broader trend where tech companies are choosing to stay private longer than in previous decades.² Notably, 61% of these businesses are under 9 years old, reflecting the global shift toward shorter corporate life cycles driven by rapid innovation and evolving market demands.³

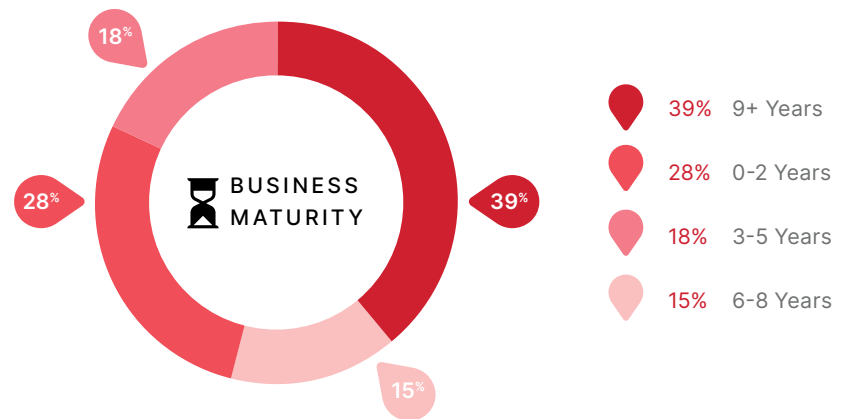
Fueling this growth is a vibrant workforce, with 28% of tech professionals aged 25-34 and 27% aged 35-44—significantly higher than the national average.⁴ This dynamic demographic underscores the region's role in nurturing the next generation of innovators, positioning the Okanagan as a destination for tech talent in Canada.

The Okanagan tech sector is brimming with optimism, with over 65% of companies planning to expand their teams in the next year. This confidence signals exciting opportunities for new talent and investment, positioning the region as a hub of future growth and innovation.



Business Structures

82% of Okanagan tech businesses are corporations, with many firms privately held.



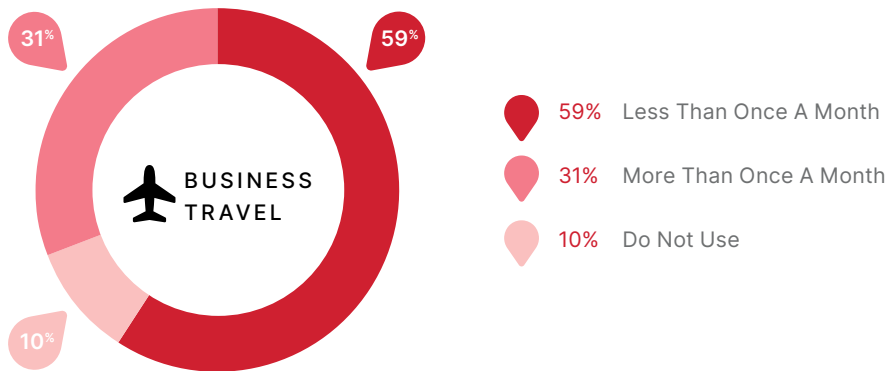
Business Maturity

61% of Okanagan Tech businesses are less than 9 years old.

Tech Travel

EXPANDING HORIZONS

Business leaders in the Okanagan tech sector repeatedly cite the importance of in-person business building and connectivity to customers, leading them to travel outside of the region. New direct flights to major centers like Seattle (January 2025) and Los Angeles (December 2024) from YLW will strengthen its global connections and ease travel time for those working in the sector.^{5,6} These routes are more than just convenient—they're lifelines to world-renowned tech ecosystems, enabling Okanagan businesses to forge powerful partnerships and accelerate growth.

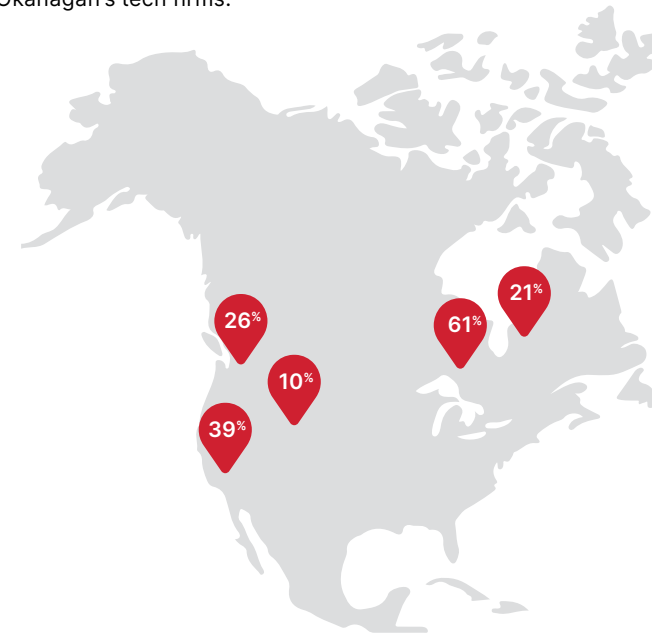


Travel Frequencies

90% of tech companies reported using Kelowna International Airport (YLW).

Suppliers and Customers

Tech firms in the Okanagan have a vast network of customers and suppliers across North America. The diverse connections highlighted here showcase the reach of Okanagan's tech firms.



- 10% Colorado
- 21% Quebec
- 26% Washington State
- 39% California
- 50% Outside Canada & United States
- 58% Other US States
- 61% Ontario
- 76% Elsewhere In Canada

Industry Advantages

BENEFITS OF THE OKANAGAN

Lifestyle, climate, and commute times repeatedly surface as key benefits of building a company in the Okanagan. We also see entrepreneurs taking pride in the active tech community and note it as a primary advantage. The Okanagan has a supportive business environment, access to a variety of support organizations, events, and peer networks, as well as world-renowned post-secondary institutions.

TOP LOCATION ADVANTAGES



Lifestyle
78%



Commute
55%



Climate
62%



Tech Community
45%

The climate supports the vibrant lifestyle tech teams seek out, from the variety of wineries and golf courses to ski resorts and lakes. Commute time was also identified as a top advantage of being in the region, which, in concert with lifestyle factors, these benefits can help with employee morale and can act as a critical attractor for talent.

Beyond lifestyle, the region's thriving tech community is a cornerstone of its success. A strong network of start-ups and established firms creates a dynamic ecosystem that nurtures growth and drives innovation.

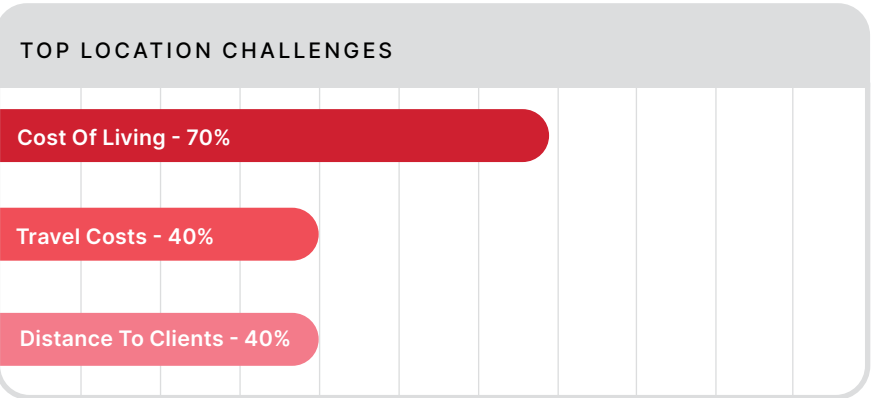


Industry Obstacles

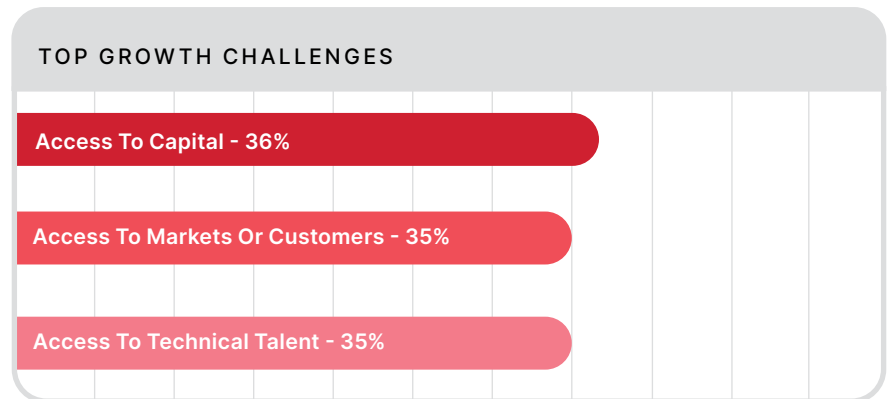
NAVIGATING THE TECH TERRAIN

The Okanagan tech sector faces diverse and complex challenges that reflect shifting economic conditions. Overall, the six challenges highlighted here can be broken down into three areas. One is challenges to accessing resources (i.e. capital and talent), another is the travel and distance challenges (i.e., travel costs, distance to clients, access to markets/customers), and the third is the cost to individuals/employees (i.e., cost of living). The struggle to easily access growth capital and tech talent is a universal issue, but it's magnified in the Okanagan by the region's distance to major urban centers.

The cost of living is the most formidable barrier for those living and working in the Okanagan. With soaring housing prices at its core, this challenge isn't confined to the region—it echoes across British Columbia and Canada. Tech leaders repeatedly express concern that this barrier is especially a concern for junior employees.



Percentages of Firms Identifying as a Primary Challenge



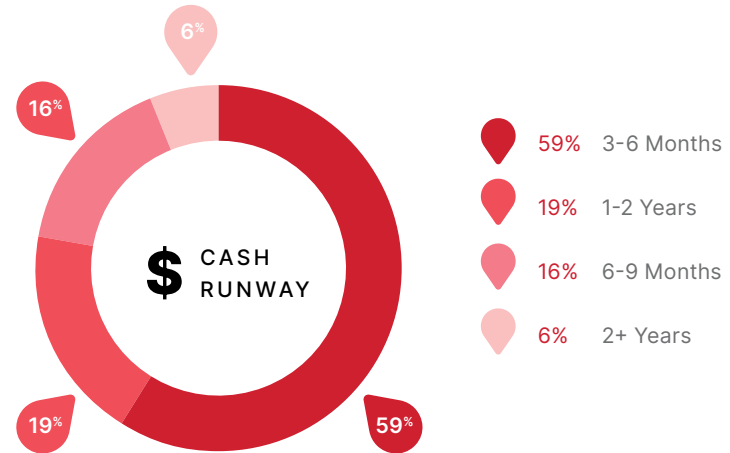
Percentage of Firms Identifying as a Top Challenge

Capital Insights

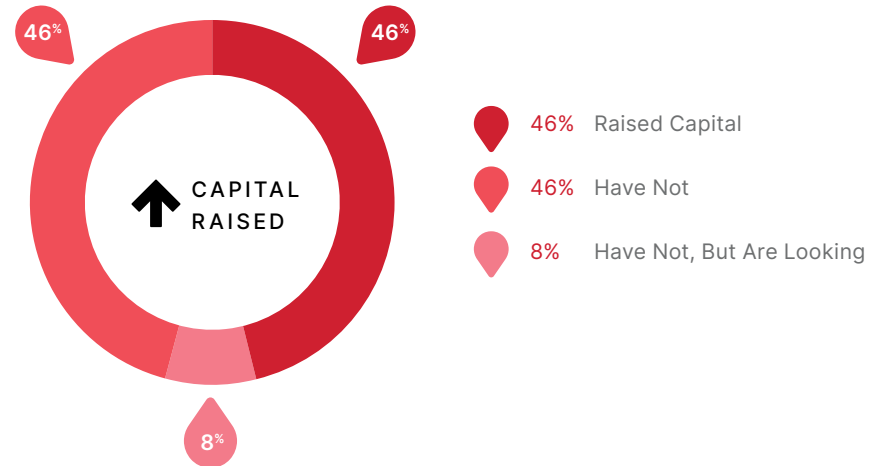
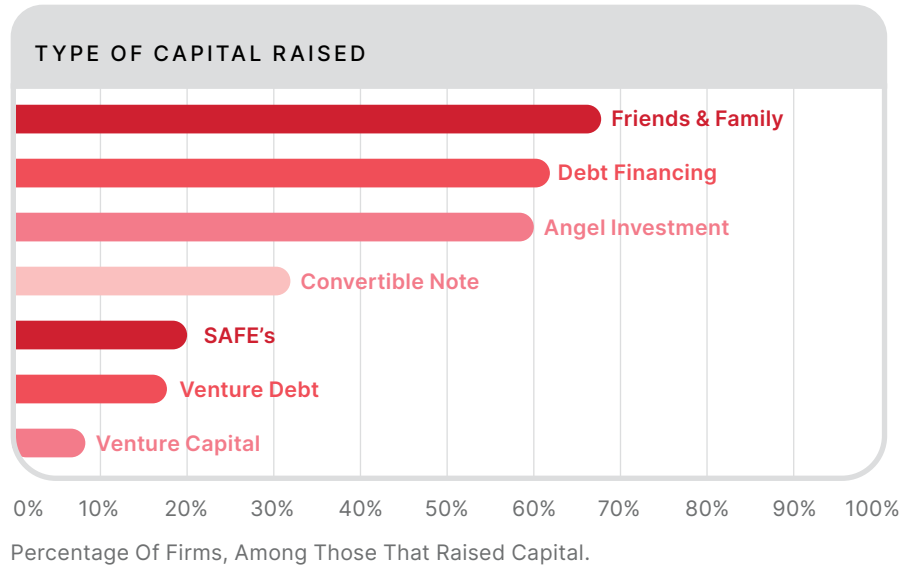
LOCAL LANDSCAPE

The Okanagan's capital ecosystem thrives on strong connections with levels of government, traditional financial institutions, accelerators, investors, and angels, all playing important roles. This network-driven approach is a driving force that propels the tech sector forward, creating a strong foundation for tech entrepreneurs to build upon.

Approximately 58% of tech businesses reported being profitable, while 42% reported not being profitable. As for cash runway, approximately 59% of tech businesses have a runway of 3-6 months. Okanagan's tech landscape reveals a near-even split between firms that have raised capital and those that haven't.



59% of firms have a cash runway of 3-6 months.



Near-even split between firms that have secured capital, and those that haven't.

OKGN]

ANGEL SUMMIT

SUPPORTED BY





SHOWCASING OKANAGAN SUBSECTORS

INNOVATION GROWS HERE

Advanced Manufacturing

Advanced Manufacturing is the application of innovative processes and technologies to enhance the efficiency, productivity, and competitiveness of manufacturing operations. It involves integrating digital technologies like automation, robotics, artificial intelligence, and data analytics, into traditional manufacturing processes. It encompasses a wide range of activities, from product design and development to production and distribution.



8%

Advanced Manufacturing
is 8% of Okanagan Tech.

COMPANY FEATURES



4AG Robotics builds robots that harvest mushrooms. Mushrooms double in size everyday, which puts enormous pressure on the daily harvesting process. 4AG Robots first went live on a commercial farm in January 2024, and they proceeded to sell 31 robots in 2024 to farms around the world.



RainStick Shower is a Canadian clean technology company founded in 2019 to revolutionize the water technology space by imagining products that reduce domestic water and energy waste. Its mission is to provide fantastic experiences while contributing to a healthy planet, one RainStick at a time. RainStick was named to TIME's List of the Best Inventions of 2023, Cleantech's "50 To Watch" list, received the Best of KBIS 2022 Impact Award, Bluetech Forum's Best Water Innovation award, the CES 2022 Best of Innovation Award and earned first place in the 2022 KBIS Kickstarter Awards.

Aerospace & Aviation

The aerospace and aviation sector encompasses the design, development, manufacturing, and operation of aircraft and related systems, including drone technologies. This encompasses aerospace engineering, aircraft manufacturing, satellite communications, and aviation services.



3%

Aerospace & Aviation
is 3% of Okanagan Tech.

COMPANY FEATURES



Founded in 1970 as Kelowna Flightcraft by Barry Lapointe, KF Aerospace has grown into Canada's largest commercial Maintenance, Repair, and Overhaul (MRO) provider. Renowned for its skilled workforce and innovative solutions, KF Aerospace excels in MRO, aerospace engineering, military aircrew training, air cargo operations, and aircraft leasing, serving corporate, commercial, and military clients worldwide, including the Royal Canadian Air Force (RCAF).



With over 35 years of experience providing critical capabilities, SKYTRAC is trusted by over 800 customers as a leading provider of LEO satellite and cellular communication services for all aerospace sectors. With over 900 airframe certifications, SKYTRAC's DAO has supplemental-type certifications under TC, FAA, EASA, ANAC, and more. Trusted by operators, organizations, and OEMs, SKYTRAC provides critical capabilities such as medical data transfer, video streaming, real-time HUMS, and more over Iridium Certus® and cellular networks.

Agritech

Agricultural technology, or agritech, leverages technological innovations to improve practices and increase agricultural productivity for farmers. This sector includes areas such as precision agriculture, agricultural robotics, food processing technology, and agricultural data analytics. Due to the region's world-renowned international wine industry, we see many innovative practices in viticulture, beverage production, and distribution.



3%

Agritech is 3% of Okanagan Tech.

COMPANY FEATURES



Crush Dynamics produces innovative food ingredients that provide breakthrough nutritional benefits focused on the biggest challenges facing the food industry today. These include consumer and legislative demands for lower sugar, lower sodium food that is healthier while less expensive. Their ingredients are uniquely derived from discarded grape "crush" from wine making using a patented process. Crush Dynamics leverages the bioactive ingredients of grape polyphenols, to provide a powerful new tool for food formulators. Their innovation has been well received by the world of food with customers winning prestigious awards.



AgriForest Bio-Technologies Ltd produces high-quality tissue culture, such as shade trees, ornamental shrubs, roses, clematis, lilacs, Saskatoon berries, and nutraceutical plants. Their research and development division is constantly working on developing new tissue culture varieties. Producing over a million plants, AgriForest is now one of the largest suppliers of tissue culture plants in North America.

Artificial Intelligence (AI)

AI is the development of computer systems capable of performing tasks that typically require human intelligence. This includes machine learning, natural language processing, computer vision, and robotics. Artificial Intelligence (AI) serves as a catalyst for innovation and transformation across sectors.



9%

Artificial Intelligence (AI)
is 9% of Okanagan Tech.

COMPANY FEATURES



Agile BK is one of Canada's fastest-growing, AI-powered bookkeeping solution for small businesses. Their services are managed by CPAs, but accelerated with AI, giving entrepreneurs affordable access to weekly CPA reviews and live financial reporting that helps them make better business decisions. Their service enables most entrepreneurs to keep everything up to date with less than 5 minutes of effort each week so they can focus on their core business while knowing that their books are always up-to-date and accurate.



TerraSense Analytics is a Canadian artificial intelligence company applying computer vision and deep learning technology to create intelligence, surveillance, and reconnaissance (ISR) solutions for governmental organizations and private sector firms.

Cleantech

Clean technology, or cleantech, includes any process, product, or service that reduces negative environmental impacts through significant energy efficiency improvements, the sustainable use of resources, or environmental protection activities. Sometimes the phrases “greentech” and “eco-technology” are used interchangeably with “cleantech.”



5%

Cleantech is 5% of Okanagan Tech.

COMPANY FEATURES

GreenStep
SOLUTIONS

GreenStep helps businesses and organizations measure, report on, and improve their sustainability performance and take climate action. They provide sustainability and regenerative strategy development, climate action plans, product lifecycle analysis, and a range of certification programs, as well as software tools.

Lomi

Lomi is the first and only carbon-neutral home appliance that allows you to turn your food waste, yard waste, and Lomi-approved bioplastics into nutrient-rich fertilizer for your plants, lawn, and garden. Lomi reduces your carbon footprint by 127% by keeping your food waste out of landfills and in turn, preventing the release of methane, a greenhouse gas 80x more potent than carbon dioxide.

Gaming & Animation

The gaming and animation sector involves the creation of content and interactive digital experiences. This includes video game development, animation production, virtual reality, augmented reality, and interactive media.



4%

Gaming & Animation
is 4% of Okanagan Tech.

COMPANY FEATURES

**HYPER
HIPPO**

Hyper Hippo is an award-winning mobile game studio creating short-form digital experiences that entertain global audiences and leave a positive impact on the world. They are the creators of the popular game AdVenture Capitalist, which has received multiple awards, including a Google Play Editor's Choice Award and Best Instant Game of the Year on Facebook. Along with AdVenture Communist and AdVenture Ages, Hyper Hippo's titles have been installed over 80 million times globally.

**sad panda
STUDIOS**

Sad Panda Studios Ltd is a Kelowna-based game development studio known for creating engaging visual novels and simulation games with a strong focus on character-driven narratives. They gained popularity with titles like "Crush Crush," a dating sim with a unique blend of humor, charm, and casual gameplay. The studio is recognized for its creative approach and commitment to delivering fun and flirty experiences to its players.

Life Sciences

The life sciences industry encompasses a broad range of businesses and organizations involved in the research, development, and production of products and services related to living organisms. This sector includes biotechnology, pharmaceuticals, medical devices, and other health-related fields. The ultimate goal of the life sciences industry is to improve human health and well-being through scientific innovation.



11%

Life Sciences is 11% of Okanagan Tech.

COMPANY FEATURES



The VO2 Master portable metabolic analyzer is now used globally by professionals in elite sports, fitness and wellness, research, and military readiness for optimizing performance and training strategies. The need for metabolic testing in real-life settings versus the constraints of a lab was the need that fuelled the development of this technology, and its use is changing the landscape of physiologic testing and training worldwide.



QHR Technologies designs interactive software solutions that empower and inform healthcare providers and patients across the country. QHR's flagship product, AccuroEMR, is the largest electronic medical record platform in Canada and helps healthcare providers manage their clinics and patient medical records. Accuro Engage is a suite of patient engagement tools for clinics, that allows providers to communicate with their patients.

Software as a Service (SaaS)

Software as a Service (SaaS) is a cloud-based software delivery model where applications are hosted by a third-party provider and made available to customers over the Internet. This eliminates the need for organizations to install and maintain software on their own servers.



16%

Software as a Service (SaaS)
is 16% of Okanagan Tech.

COMPANY FEATURES

MINGA

Minga is a one-stop shop for campus management, redefining school operations for the digital age. Minga's solutions reduce the need for time-consuming manual tasks, helping schools and teachers run on time, on task, and on purpose, focused on student success. From digital IDs and hall passes to tools that reinforce positive behaviors, Minga is truly taking off in the K-12 education technology space.

trellis

Trellis is a SaaS platform for the charitable sector. Their software helps hundreds of charities across North America with their fundraising events, auctions and raffles. Users can create event pages, silent auctions, process funds and even automate their tax receipting.





FINAL REMARKS

MESSAGE TO OUR READERS



Final Remarks

The Okanagan is a place where entrepreneurs don't just dream about the future; they are building it, one innovative idea at a time.

As we look towards the future of Okanagan tech, one thing is abundantly clear: this region is full of extraordinary entrepreneurs with incredible ideas. The region's unique blend of natural beauty and cutting-edge innovation has made it a powerhouse of technological advancement with a steady rate of growth. By leveraging innovation, we are driving economic activity and increasing competitiveness.

The region's strong ties to global markets and thriving local ecosystem make it an incubator for the next generation of tech talent. In 2023, the Okanagan tech sector significantly impacted the economy, with 787 businesses contributing \$4.98 billion in GDP to British Columbia. This figure reflects the net value added from both operating and capital expenditures. The sector also supported 32,645 jobs, playing a crucial role in regional employment and economic stability. With continued investment and stakeholder support, the Okanagan's tech sector is well-positioned to continue to drive economic success.

For the entrepreneurs who are building their companies here, the Okanagan is more than just a nice place to live with an international airport; it's a true lifestyle choice, a place where work-life balance isn't just a buzzword but a reality. Where the commute is short, the climate is warm, and the community is as vibrant as the tech it produces. In order to continue this trajectory, we must rally around how we can remove obstacles for business owners and promote economic growth.

In closing, the Okanagan tech sector is a shining example of what's possible when creativity, community, and commerce converge. From its grassroots beginnings to its current status as a leading Canadian tech hub, the Okanagan has consistently demonstrated its ability to innovate and inspire. The next chapter of this story is yet to be written, but one thing is certain: the Okanagan is poised to continue its legacy of success and shape the future of technology.

Special Thanks

This study could not have been conducted without the support of our partners, ETSI-BC, Okanagan College, the University of British Columbia Okanagan, the City of Vernon, the Central Okanagan Economic Development Commission, Tourism Kelowna, the Kelowna International Airport, and KPMG.

Our gratitude also extends to the numerous businesses that participated in the study, sharing their company data, insights, and stories. Their collective effort, along with the essential role played by the tech community in driving economic growth, has made Okanagan a more prosperous place and significantly contributed to the overall success of the region.





**REPORT
APPENDICES**
METHODOLOGY & TERMINOLOGY

References

1. BC Stats. High Technology. Retrieved from: [Link](#)
2. McKinsey & Company. Grow fast or die slow: Why unicorns are staying private. Retrieved from: [Link](#)
3. Harvard Business Review. The Scary Truth About Corporate Survival. Retrieved from: [Link](#)
4. The Dais. Canada's Got Tech Talent. Retrieved from: [Link](#)
5. Global News. Direct flights to Seattle from Kelowna International Airport start in 2025. Retrieved from: [Link](#)
6. Global News. Kelowna to offer direct flights to Los Angeles. Retrieved from: [Link](#)

Appendix A

THE OKANAGAN REGION

The “Okanagan Region”, as defined by this report includes four Census Divisions noted below. These four areas align with the Statistics Canada’s “Census Divisions” also called “Regional Districts”. Therefore, Statistics Canada’s data was able to be leveraged to extrapolate data.

- Central Okanagan
- North Okanagan
- Okanagan-Similkameen
- Columbia-Shuswap*

*Only a portion of the Columbia-Shuswap Census Division is included in the Okanagan Region.

COLUMBIA-SHUSWAP ADJUSTMENT

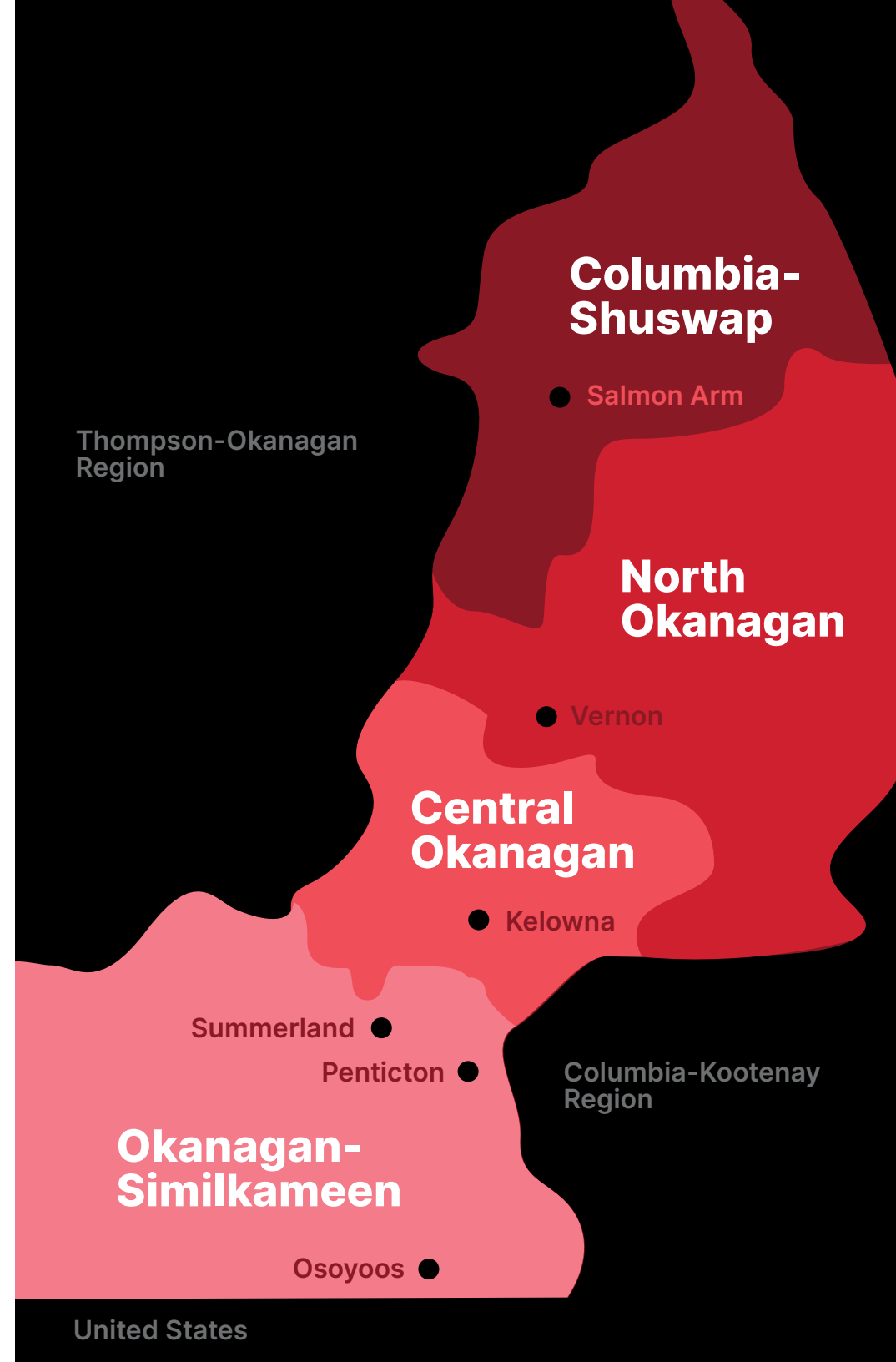
The regional district of Columbia-Shuswap is not fully covered by Accelerate Okanagan (AO), therefore a percentage of the regional district totals are used. This slide details the methodology of determining the percentage.

The population of Columbia-Shuswap in 2021 was **57,021** AO covers the following census subdivisions (population in brackets):

- Columbia-Shuswap C (8,919)
- Columbia-Shuswap D (4,400)
- Columbia-Shuswap E (1,388)
- Columbia-Shuswap F (3,200)
- Sicamous (2,613)
- Salmon Arm (19,432)
- Chum Creek 2 (53)
- Hustalen 1 (44)
- North Bay 5 (45)
- Okanagan (Part) 1 (91)
- Quaaout 1 (284)
- Salmon River 1 (-)
- Scotch Creek 4 (30)
- Switsemalph 3 (64)
- Switsemalph (209)

The total population covered (sum of above numbers): **40,772**
Percent of Columbia-Shuswap population covered by AO: **72%**

Main source: Census Profile, 2021 Census of Population. More information: Columbia-Shuswap, Regional District (RD), [Census Division], British Columbia (statcan.gc.ca)



Appendix B

OKANAGAN OPEX IMPACT

See the following table for the impacts broken down by impact type (i.e., direct, indirect, induced impacts) and government revenue broken down by tax type (i.e., personal income tax, taxes on products and taxes on production).

TOTAL ECONOMIC IMPACT

2023 Period, \$B, and Full-time equivalents (FTEs)

British Columbia	Direct Effects	Indirect Effects	Induced Effects	Total
Total GDP (Or Value Added)	2.9	0.5	1.3	4.7
Salaries & Wages (Before Income Taxes)	2.3	0.2	0.4	3.0
Jobs (Jobs Supported)	22,359	2,757	6,040	31,156

1. Personal income taxes are paid to the provincial and federal governments. Statistics Canada simulations provide an estimate of total labour income generated along with the number of jobs created or maintained due to increased economic activity. This provides an estimate of average salaries per province for each phase of a given project. Using current tax brackets (as of the 2024 tax year), personal income taxes paid to the various provincial governments and the federal government that can be estimated (effective tax rates are used for improved accuracy). Figures are then re-inflated in 2022 \$ for consistency.

2. At the provincial level, this includes taxes on the environment, on trading profits, on gas, on land transfers, on goods and services (PST) and other provincial taxes. At the federal level, this includes taxes on trading profits, gasoline taxes, excise taxes, duty taxes, air transportation taxes, import taxes and taxes on goods and services (GST). At the municipal level, it includes land transfer taxes, property taxes, permits and other municipal fees.

GOVERNMENT REVENUE

2023 Period, \$B

Government Revenues	Personal Income Tax ¹	Taxes On Products ²	Taxes On Production ³	Total
Municipal Governments	N/A	0.004	0.09	0.09
Provincial Governments	0.17	0.14	0.06	0.37
Federal Governments	0.39	0.09	0.001	0.48

3. Taxes on production include taxes payable on goods and services when they are produced, delivered, sold, transferred or otherwise disposed of by their producers, plus taxes and duties on imports; they also include other taxes on production, which consist mainly of taxes on the ownership or use of the land, on buildings or on other assets used in production or on the labour employed, or compensation of employees paid. At the municipal level, this includes property taxes.

Note: Personal income taxes have been estimated using 2023 effective tax rates for the British Columbia provincial government, based on information gathered through the tech sector survey as well as through Statistics Canada's input output model.

Note: Due to rounding, the sum of items may not add up to the total.
Source: Simulations by Statistics Canada based on data from survey.

Appendix C

OKANAGAN CAPEX IMPACT

See the following table for the impacts broken down by impact type (i.e., direct, indirect, induced impacts) and government revenue broken down by tax type (i.e., personal income tax, taxes on products and taxes on production).

TOTAL ECONOMIC IMPACT

2023 Period, \$B, and Full-time equivalents (FTEs)

British Columbia	Direct And Indirect Effects	Induced Effects	Total
Total GDP (Or Value Added)	0.20	0.06	0.26
Salaries & Wages (Before Income Taxes)	0.12	0.02	0.014
Jobs (Jobs Supported)	1,215	274	1,489

1. Personal income taxes are paid to the provincial and federal governments. Statistics Canada simulations provide an estimate of total labour income generated along with the number of jobs created or maintained due to increased economic activity. This provides an estimate of average salaries per province for each phase of a given project. Using current tax brackets (as of the 2024 tax year), personal income taxes paid to the various provincial governments and the federal government that can be estimated (effective tax rates are used for improved accuracy). Figures are then re-inflated in 2022 \$ for consistency.
2. At the provincial level, this includes taxes on the environment, on trading profits, on gas, on land transfers, on goods and services (PST) and other provincial taxes. At the federal level, this includes taxes on trading profits, gasoline taxes, excise taxes, duty taxes, air transportation taxes, import taxes and taxes on goods and services (GST). At the municipal level, it includes land transfer taxes, property taxes, permits and other municipal fees.

GOVERNMENT REVENUE

2023 Period, \$B

Government Revenues	Personal Income Tax ¹	Taxes On Products ²	Taxes On Production ³	Total
Municipal Governments	N/A	0.0002	0.008	0.008
Provincial Governments	0.010	0.019	0.005	0.034
Federal Governments	0.021	0.007	0.001	0.028

3. Taxes on production include taxes payable on goods and services when they are produced, delivered, sold, transferred or otherwise disposed of by their producers, plus taxes and duties on imports; they also include other taxes on production, which consist mainly of taxes on the ownership or use of the land, on buildings or on other assets used in production or on the labour employed, or compensation of employees paid. At the municipal level, this includes property taxes.

Note: Personal income taxes have been estimated using 2023 effective tax rates for the British Columbia provincial government, based on information gathered through the tech sector survey as well as through Statistics Canada's input output model.

Note: Due to rounding, the sum of items may not add up to the total.
Source: Simulations by Statistics Canada based on data from survey.

Appendix D

TERMINOLOGY

Measures of Economic Activity

Term	Definition
Value Added (Expressed At Market Prices)	<ul style="list-style-type: none">• The value that the producer adds to intermediate inputs in order to meet the market's demands. In an input-output model, it is obtained through the sum of the factors of production's compensation, namely wages and salaries before taxes, gross mixed income, and other gross income before taxes. Value added may also be referred to as the contribution of an expenditure to gross domestic product (GDP). It includes:• Wages and salaries, including the taxable incomes (or gross pay) of permanent employees;• Gross mixed income represents the revenues of unincorporated businesses (e.g. contract workers, freelancers);• Other gross income, also known as "other operating surplus", includes profits, depreciation, and employee benefits.
Jobs (FTE)	<ul style="list-style-type: none">• Represent the number of full-time equivalent (FTE) workers supported through operations spending.
Jobs In Person-Years	<ul style="list-style-type: none">• Represents the number of full-time employees accomplishing a year's worth of work in the context of capital investments.
Government Revenues	<ul style="list-style-type: none">• Generally, include personal income taxes, indirect taxes less subsidies, specific taxes (provincial environmental tax, provincial trading profits tax, provincial gas tax, federal excise tax, and federal air transport tax), as well as consumption taxes (PST, GST) and exclude corporate income taxes. It is measured as the total amount of tax revenues generated for each level of government (federal, provincial, and municipal).

Three Types of Economic Impacts

Term	Definition
Direct Impact	<ul style="list-style-type: none">• Measures the changes that occur in "front-end" businesses that would initially receive expenditures as a direct consequence of an investment, recurrent operating expenditures, or increased activities.
Indirect Impact	<ul style="list-style-type: none">• Measures the effects stemming from the demand for goods and services generated by a firm's activities throughout the value chain. Indirect impacts therefore also include salaries paid to employees of downstream suppliers, as well as other revenues generated by the aforementioned suppliers (e.g. profits and depreciation of capital).
Induced Effect	<ul style="list-style-type: none">• Measures the effects stemming from increases in personal income caused by direct and indirect effects. In the input-output model, businesses experiencing increased revenue from direct and indirect effects will subsequently increase payroll expenditures (e.g. by hiring more employees, increasing payroll hours, or raising salaries). Households will, in turn, increase spending at local businesses. The induced effect is a measure of this increase in household-to-business activity.

Appendix E

METHODOLOGY

The key concept behind the economic impact analysis is that spending on goods and services has downstream impacts throughout the economy. For instance, operations will generate demand for inputs (such as electricity, maintenance services, equipment, and labour), which then generates additional demand that extends beyond the initial spending. In short, economic impacts measure the cascading effects that are produced by an injection of cash in a region. The more integrated the economy, or the more the initial spending engages sectors of activity that are already in the region, the greater the economic impacts.

The economic impacts are divided into three main groups – the direct, the indirect and the induced effects of planned spending:

- The direct effects are the economic impacts (e.g. value-added, government revenues or employment) directly attributable to the spending of the industry. These revenues are generated by firms and its general contractors and include salaries paid to the firm's employees and other revenues generated;
- The indirect effects measure the economic impact stemming from a demand for goods and services generated by the firm's activities in other industrial sectors. This refers to the second-round impacts on the suppliers selling their goods and services to the firm, and the resulting impact on these suppliers' entire supply chain. For example, this includes professional services, equipment and material, repair and maintenance services, and the likes. Indirect impacts therefore include salaries paid to employees of the various contractors and suppliers as well as other revenues generated by these suppliers throughout the supply chain;

- The induced effects are the results of increased personal income caused by the direct and indirect effects. Businesses experiencing increased revenue from the direct and indirect effects of the firm's activities will subsequently increase payroll expenditures (by hiring more employees, increasing payroll hours, raising salaries, etc.). Households will, in turn, increase spending at local businesses. The induced effect is a measure of this increase in household-to-business activity.

The direct, indirect and induced economic impacts are calculated using Statistics Canada's Input-Output (I-O) model. This model is designed to simulate the economic activity derived from a project, a company or an industry on the national and provincial economies (based on the number of jobs, production value, expenditures or sales).

Appendix F-1

ASSUMPTIONS

Methodological Framework

The key concept behind economic impact analysis is that spending on goods and services has downstream impact throughout the economy. For instance, renewable fuel production will generate demand for inputs (such as feedstock, consumables, equipment, and labour), which then generates additional demand that extends beyond the initial spending. In short, economic impacts measure the cascading effects that are produced by an injection of cash in a region. The more integrated the economy, or the more the initial spending engages sectors of activity that are already in the region, the greater the economic impacts.

The cascading economic impacts of planned spending are divided into three main groups – the direct, the indirect and the induced effects of planned spending:

- The direct effects are the economic impacts (e.g. value-added, government revenues or employment) directly attributable to the spendings. These revenues are generated by the Tech Industry and its general contractors and include salaries paid to employees or its prime contractors' staff and other revenues generated;
- The indirect effects measure the economic impact stemming from a demand for goods and services generated by the Tech Industry activities in other industrial sectors. This refers to the second-round impacts on the suppliers selling their goods and services, and the resulting impact on these suppliers' entire supply chain. Indirect impacts therefore include salaries paid to employees of the various suppliers as well as other revenues generated by these suppliers throughout their own supply chain;
- The induced effects are the results of increased personal income caused by the direct and indirect effects. Businesses experiencing increased revenue from the direct and indirect effects of the Tech Industry activities will subsequently increase payroll expenditures (by hiring more employees, increasing payroll hours, raising salaries, etc.). Households will, in turn, increase spending at local businesses. The induced effect is a measure of this increase in household-to-business activity.

The direct, indirect and induced economic impacts are calculated using Statistics Canada's Input-Output (I-O) model. This model is designed to simulate the economic activity derived from a project, a company or an industry on the national and provincial economies (based on the number of jobs, production value, expenditures or sales).

Scope of the analysis

The analysis of the economic impacts considers the various types of expenses incurred by the Tech Industry. There are two main categories of expenditures for this analysis:

- **Capital Expenditures (CAPEX):** These expenses correspond to activities carried outside of the operating expenditures. The following items are included: construction and/or renovation of commercial buildings, machinery and equipment and expenses relating software and technologies (intangibles or intellectual properties).
- **Operating expenses (OPEX):** These expenses are incurred to support the day-to-day activities of the Tech Industry. They include the salaries of employees, as well as the entire range of purchases of goods and services made (e.g. labour, power, consumables, utilities, maintenance, etc.).

Appendix F-2

ASSUMPTIONS

Basic Assumptions Underlying this Assessment

The analysis of the economic impacts considers the various types of expenses incurred as part of the industry. There are two main categories of expenditures for this type of assessment and their estimation is based on a set of assumptions. Those most relevant to this analysis are as follows:

Total Industry CAPEX and OPEX

- The analysis is based on a survey made from May 27th, 2024 to July 8th, 2024 with 104 respondents. The information that was provided was used to derive the total spending and revenues of the industry, as well as the expense structure.

CAPEX and OPEX STRUCTURE

- Operational Expenditures (OPEX): According to the industry survey, payroll expenses constitute 64% of the total operational expenditures, while the remaining 36% represent other expenses.
- Capital Expenditures (CAPEX): The survey revealed the average capital expenditures in the industry, with a typical distribution of 16% on property or building, 21% on equipment or machinery, and a majority of 63% on technology or software.
- To derive a more granular view of spending, the Supply and Use tables for the industry “Other Professional, Scientific and Technical Services including Scientific Research and Development SNA” were utilized. These tables offer a comprehensive picture of all economic activities within a specific region, highlighting the structure of an economy and the interconnections among various economic entities.

Economic Impact

- The analysis is based on Statistics Canada’s 2019 Input-Output (I-O) model, which as of August 2024 is the most recent recommended model available and the most representative of the current economic structure of British Columbia. The economic impacts could vary if the structure of the Canadian economy were to change.
- The Input-Output model assumes fixed technological coefficients – meaning it does not consider economies of scale, constraint capacities, technological change, externalities, or price changes. In other words, the model is linear. This makes impact analysis less accurate for large and longer-term projects, as firms adjust their production technology and current I-O technological coefficients become outdated. If firms adjust their production technology over time to become more efficient, the impact of a change in final demand will often be overstated.
- The analysis is based on the 2019 tax regulation, as included in the latest version of Statistics Canada’s model. Tax benefits may differ if changes have since been made to tax regimes and tax rates. Where possible, taxes paid have been updated to current tax rates – for example, for personal income tax brackets, simulations are set to 2023 brackets.

Any significant variation from these assumptions may result in a different economic impact for British Columbia, (upwards or downwards).

Note From KPMG And AO

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There are a number of limitations in economic impact assessments. The methodology involved economic input-output modeling – an approach that is widely accepted and common for this type of analysis. The KPMG analysis used Statistics Canada Interprovincial Input-Output Model to measure the impact of the CAPEX, and the OPEX. The Input-Output Model reflects the structure of the Canadian economy in 2019, which represents the most recent recommended model by Statistic Canada as of July 2024. It is likely that the structure of the economy changed and will continue to change over time, which may affect the estimates. Output data is reported in 2024 Canadian dollars.

The estimated economic impact of the CAPEX and OPEX is composed of the employment and value-added impacts that are generated in the economy directly from the CAPEX and OPEX, indirectly from suppliers (including the suppliers to the direct suppliers and suppliers to them, etc.), and the induced impacts that result from spending by direct and indirect employees of their salaries and wages.

