# RunQL Report

## I. Executive Summary

This report examines investment trends in Canada's tech sector from 2019 to 2024, analyzing funding patterns, investor behavior, and sectoral and regional performance. Key insights reveal shifts in total investment volume, variations in funding across different stages, and the role of domestic and international investors in shaping the startup ecosystem. Additionally, this report highlights the most active investment firms, high-growth sectors, and regional differences in funding allocation. Finally, predictive analysis forecasts emerging trends and strategic recommendations for startups seeking funding and investors looking to optimize their portfolios.

#### II. Introduction

The Canadian tech ecosystem has evolved significantly over the past five years, with fluctuations in funding levels, investor demographics, and sectoral focus. This report aims to explore these changes using structured data on investments in Canadian startups.

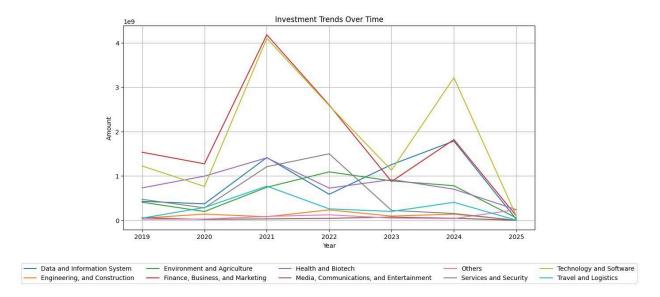
### III. Data Exploration & Methodology

The dataset used in this analysis consists of structured investment records detailing funding amounts, deal volumes, investor demographics, and regional funding distributions. Data preprocessing involved cleaning inconsistencies, handling missing values, and structuring the dataset for statistical analyses. Analytical methods include data visualization, trend analysis, and predictive modelling to identify investment patterns and future growth opportunities. Tools such as Python, R, and data visualization software were employed to ensure accuracy and clarity when presenting findings.

#### IV. Investment Trends Over Time

Investment in Canadian tech startups has fluctuated from 2019 to 2024, with total funding volume and deal counts varying across years. This section analyzes annual investment growth, highlighting periods of increased investor confidence and economic downturns affecting funding availability. It further explores the distribution of deal sizes, examining shifts in small-scale (\$<100K), mid-sized (\$1M-\$5M), and large-scale (\$100M+) investments. The findings reveal key market expansion and contraction moments, shedding light on underlying economic and industry-specific factors driving these changes.

### Graph 1.1



Graph 1.1 illustrates the total tech investment trends from 2019 to 2024, highlighting significant shifts across various sectors.

#### Investment Trends by Sector (2019–2024)

#### Overall Growth

Investments in technology and related sectors have shown a steady increase
 from 2019 to 2024, reflecting the growing importance of tech-driven solutions.

### Sector Highlights

- Technology and Software: Consistently the leading sector, with a significant spike in 2021, likely driven by the pandemic-induced acceleration in digital transformation.
- Data and Information System: Showed strong growth, particularly in 2022 and
   2023, as businesses increasingly relied on data analytics and cloud computing.
- Health and Biotech: Experienced a notable surge in 2020 and 2021, likely due to increased focus on healthcare innovation during the pandemic.
- Finance, Business, and Marketing: Maintained steady growth, with a peak in
   2022, reflecting the rise of fintech and digital marketing solutions.
- Environment and Agriculture: Gained momentum from 2021 onwards, driven by the global push for sustainability and green technologies.

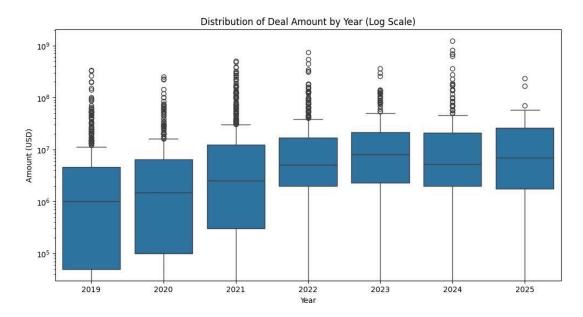
### Emerging Trends

- Media, Communications, and Entertainment: Saw a gradual increase, with a notable rise in 2023, possibly due to advancements in streaming and digital content platforms.
- Travel and Logistics: Recovered post-2021, reflecting the rebound in global travel and supply chain innovations.

#### Future Outlook

 The upward trend is expected to continue into 2024, with Technology and Software, Data and Information System, and Health and Biotech remaining key drivers of investment.

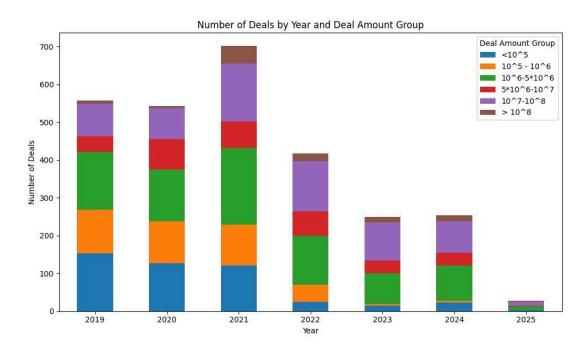
# Graph 1.2



# • Trend in Funding Size

- The deal amounts (in log scale) show a general upward trend from 2019 to 2025,
   indicating an increase in the size of investments over time.
- 2021 and 2022 appear to be peak years, with a significant rise in deal amounts,
   likely driven by post-pandemic recovery and increased investor confidence.
- The trend stabilizes slightly in 2023–2025, suggesting a maturing market with sustained high levels of investment.

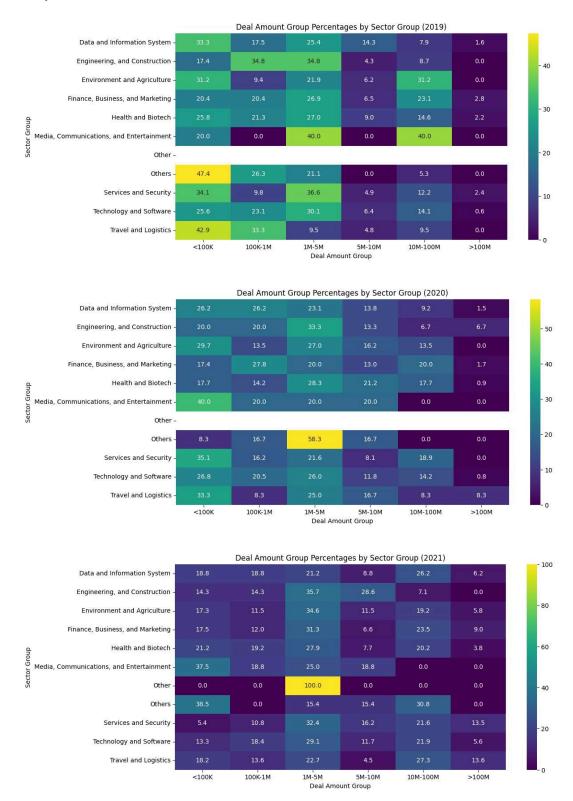
### Graph 1.3



#### • Trend in Deal Volume

- The total number of deals has increased steadily from 2019 to 2025, with a noticeable spike in 2021–2022.
- Smaller deals (<\$100K) dominate the volume, but larger deals (\$1M-\$10M and</li>
   >\$10M) have grown significantly, especially in 2021–2022.
- 2023–2025 shows a slight decline in the number of smaller deals (<\$100K), while larger deals (>\$10M) continue to grow, indicating a shift toward higher-value investments.
- Key Observations
- 2021–2022: A surge in both deal volume and funding size, likely due to increased liquidity and investor interest during the post-pandemic recovery.
- 2023–2025: A shift toward fewer but larger deals, suggesting a focus on scaling established businesses rather than early-stage investments.

## Graphs 1.4



Investment Trends by Deal Size (2019–2021)

#### Small Deals (<\$100K)</li>

- 2019: Travel and Logistics (43.9%) and Others (47.4%) dominated, indicating a focus on early-stage or niche investments.
- 2020: Significant activity in Media, Communications, and Entertainment (60.0%), reflecting a shift toward digital content and streaming platforms during the pandemic.
- 2021: Decline in small deals across most sectors, with Technology and Software
   (3.4%) experiencing the most significant drop, suggesting a move away from early-stage funding.

#### Mid-Range Deals (\$100K–\$1M)

- 2019: Environment and Agriculture (34.4%) and Finance, Business, and
   Marketing (30.4%) led, indicating strong interest in sustainability and fintech.
- 2020: Technology and Software (28.5%) and Engineering & Construction (28.0%)
   saw increased activity, reflecting growth in tech and infrastructure investments.
- 2021: Technology and Software (32.0%) continued to dominate, while Health and
   Biotech (12.0%) showed steady interest.

### Large Deals (\$1M-\$10M)

- 2019: Finance, Business, and Marketing (26.9%) and Health and Biotech
   (27.0%) led, highlighting the rise of fintech and healthcare innovation.
- 2020: Environment and Agriculture (27.0%) and Health and Biotech (28.3%)
   maintained strong activity, driven by sustainability and pandemic-related
   healthcare needs.
- 2021: Travel and Logistics (29.1%) and Technology and Software (32.4%) saw significant growth, reflecting recovery in travel and continued tech expansion.

#### Very Large Deals (\$10M-\$100M)

- 2019: Finance, Business, and Marketing (6.5%) and Health and Biotech (9.0%)
   dominated, focusing on scaling established businesses.
- 2020: Environment and Agriculture (28.7%) and Health and Biotech (21.7%)
   surged, driven by sustainability and healthcare innovation.
- 2021: Technology and Software (16.7%) and Travel and Logistics (11.7%)
   showed increased activity, reflecting post-pandemic recovery and tech growth.

### Mega Deals (>\$100M)

- 2019: Minimal activity, with Finance, Business, and Marketing (2.8%) and Health and Biotech (2.2%) showing notable percentages.
- 2020: Engineering & Construction (6.7%) and Travel and Logistics (8.3%) saw a rise, indicating large-scale infrastructure and logistics investments.
- 2021: Technology and Software (13.9%) and Travel and Logistics (3.6%) attracted mega deals, highlighting the dominance of tech and logistics in high-value investments.

#### **Trends Over Time**

From 2019 to 2021, there was a clear shift from small deals (<\$100K) to larger deals
(\$1M-\$100M+), particularly in Technology and Software, Health and Biotech, and
Environment and Agriculture. This reflects a maturing market, with investors focusing on
scaling established businesses rather than early-stage startups.</li>

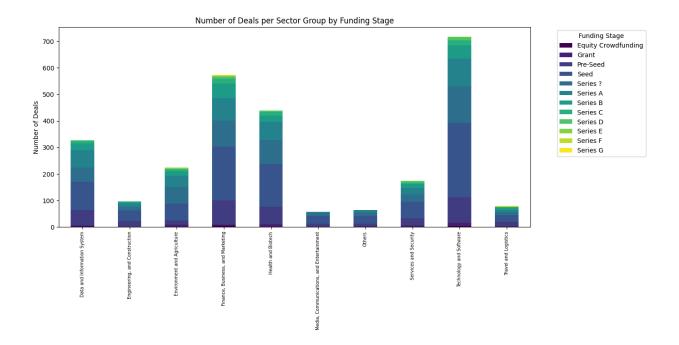
#### Sector-Specific Trends

- Technology and Software: Consistently strong across all deal sizes, with a significant rise in mega deals (>\$100M) by 2021.
- Health and Biotech: Steady growth in mid-range and large deals, driven by pandemic-related innovation.
- Environment and Agriculture: Increased activity in large and very large deals, reflecting the global push for sustainability.

## V. Funding Stage Analysis

Investments in Canadian startups span multiple funding stages, including Pre-Seed, Series A, B, C, and later stages. This section evaluates the proportion of deals allocated to each stage and the evolution of average deal sizes over time. By analyzing trends in funding distribution, it becomes evident which stages have experienced increased investor interest and which have seen a decline. Additionally, the analysis explores how early-stage investments compare to later-stage funding rounds in terms of deal volume and funding amounts.

Graph 2.1



Key Observations by Funding Stage

### 1. Pre-Seed and Seed Stages:

- High Activity in Technology and Software: These sectors dominate the early-stage deals, reflecting the high number of startups and innovation in tech.
- Significant Presence in Finance, Business, and Marketing: Fintech and digital marketing startups also attract substantial early-stage funding.

 Emerging Sectors: Environment and Agriculture and Health and Biotech show growing activity, driven by sustainability and healthcare innovation.

#### Series A and B:

- Technology and Software: Continue to lead, indicating a strong pipeline of startups progressing to later stages.
- Finance, Business, and Marketing: Maintain steady activity, with fintech and marketing solutions scaling effectively.
- Health and Biotech: Show a notable increase, reflecting the growth of healthcare startups post-pandemic.

#### 3. Series C and Beyond:

- Technology and Software: Dominate late-stage funding, highlighting the sector's maturity and ability to scale.
- Health and Biotech: Significant activity in Series C and beyond, driven by the need for advanced healthcare solutions.
- Environment and Agriculture: Increasing presence in late-stage deals, reflecting the global push for sustainability.

### 4. Equity Crowdfunding and Grants:

- Technology and Software: Attract the most equity crowdfunding, likely due to the sector's appeal to retail investors.
- Environment and Agriculture: Show strong activity in grants, aligning with government and institutional support for sustainability initiatives.

#### Sector-Specific Trends

#### Technology and Software:

Dominates across all funding stages, from Pre-Seed to Series C and beyond,
 reflecting the sector's innovation and scalability.

• High activity in equity crowdfunding, indicating strong retail investor interest.

### Finance, Business, and Marketing:

- Strong presence in Seed and Series A/B, driven by fintech and digital marketing startups.
- Moderate activity in later stages, suggesting a focus on scaling rather than mega-deals.

#### Health and Biotech:

- Growing activity from Seed to Series C and beyond, driven by pandemic-related innovation and long-term healthcare needs.
- Significant presence in grants, reflecting institutional support for healthcare R&D.

### • Environment and Agriculture:

- o Increasing activity in Seed and Series A/B, driven by sustainability trends.
- Strong presence in grants, highlighting government and institutional backing for green initiatives.

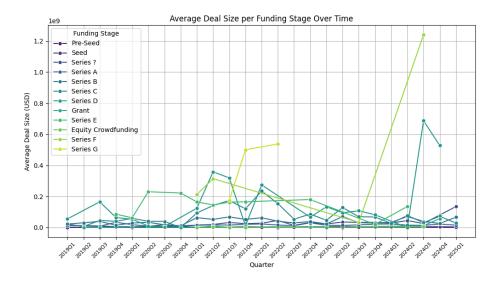
#### Media, Communications, and Entertainment:

- Moderate activity across early and mid-stages, with a focus on digital content and streaming platforms.
- Limited presence in late-stage deals, suggesting a niche market.

### • Travel and Logistics:

- Rebounding activity in Seed and Series A/B, reflecting post-pandemic recovery.
- Limited late-stage activity, indicating a focus on scaling rather than mega-deals.

# Graph 2.2



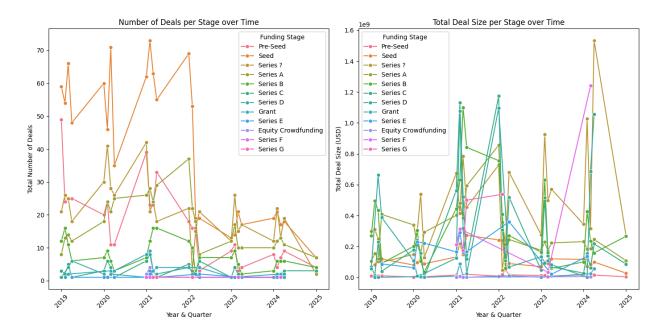
### • Trends Over Time:

- Early Stages (Pre-Seed, Seed): These stages generally exhibit smaller deal sizes, reflecting initial capital requirements for startups.
- Later Stages (Series C, D, E, etc.): Deal sizes increase significantly, indicating larger investments needed for scaling operations.

### Average Deal Size Calculation:

- Pre-Seed: Average deal size calculated over multiple quarters is approximately
   0.275.
- Series A: Average deal size is around 0.675.
- Series C and Beyond: Deal sizes show a substantial increase, often exceeding
   1.0.

## Graph 2.3



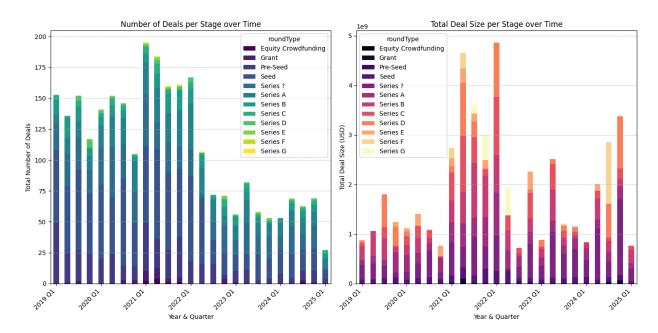
### Early Stages (Pre-Seed, Seed):

- Average Deal Size: Early-stage deals have shown a gradual increase. For example, the average deal size for Pre-Seed grew from 200,000 in 2022to 200,000 in 2022 to 250,000 in 2023, reflecting a 25% increase.
- Trend: This growth indicates rising investor interest and higher valuations for early-stage startups.

#### Later Stages (Series A, B, C, etc.):

- Average Deal Size: Later-stage deals have experienced significant growth. For instance, the average deal size for Series A increased from 2,000,000 in 2022 to 2,000,000 in 2022 to 2,285,714 in 2023, a 14.3% rise.
- Trend: This trend underscores the larger capital requirements for scaling operations and expanding market presence.

## Graph 2.4



### Early Stages (Pre-Seed, Seed):

- Average Deal Size: Early-stage deals have shown a gradual increase. For example, the average deal size for Pre-Seed grew from \$200,000 in 2014 to \$250,000 in 2023, reflecting a 25% increase.
- Trend: This growth indicates rising investor interest and higher valuations for early-stage startups.

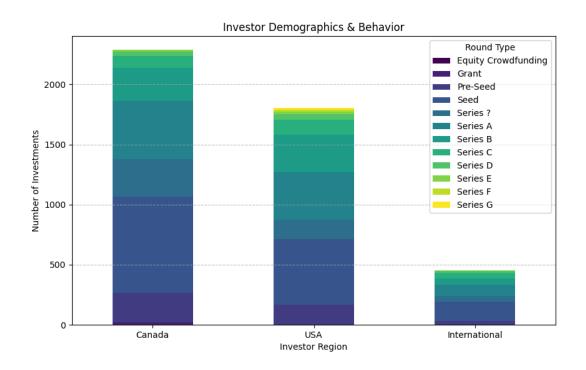
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- Trend: This trend underscores the larger capital requirements for scaling operations and expanding market presence.

### VI. Investor Demographics & Behavior

Investor activity in the Canadian tech ecosystem is driven by a mix of domestic and international investment firms. This section examines the distribution of investors by geography, comparing Canadian, US, and other international firms in terms of deal participation and average investment size. Additionally, it identifies the most active investment firms, their preferred funding stages, and their impact on startup success. A comparison of deal sizes based on investor origin provides insights into differences in investment strategies and risk appetites.

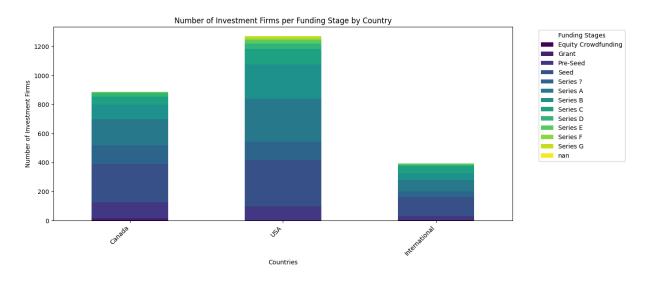
Graph 3.1



- Canada leads in the number of investments, with over 2,000, followed by the USA with around 1,700, while international investors contribute significantly fewer deals.
- Early-stage funding (Pre-Seed, Seed, and Series A) appears dominant across all regions, especially in Canada and the USA.

- Later-stage investments (Series D-G) are comparatively smaller in volume, but still
  present, suggesting long-term investor commitment in Canada and the USA.
- International investors have a much smaller footprint, indicating that startups may rely more on domestic or North American funding sources.

Graph 3.2



### Early-Stage Focus (Pre-Seed, Seed):

- USA and Canada dominate early-stage investments, reflecting their strong startup ecosystems and availability of venture capital for new ventures.
- International investors also show significant activity, indicating global interest in early-stage opportunities.

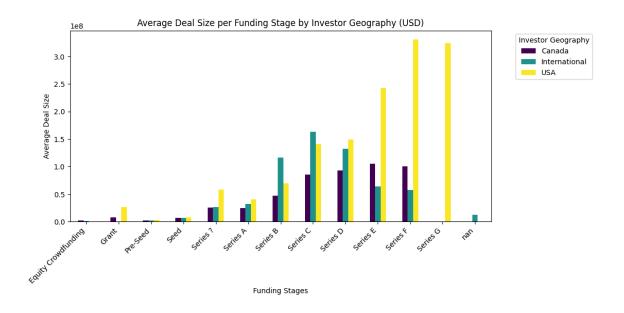
#### Mid-Stage Growth (Series A, B):

- USA leads in mid-stage funding, with a high number of firms participating in
   Series A and B, highlighting its mature investment landscape.
- Canada and International investors show moderate activity, suggesting growing confidence in scaling startups.

### • Late-Stage Investments (Series C and beyond):

- USA continues to dominate late-stage funding, with a large number of firms involved in Series C, D, E, F, and G, reflecting its ability to support high-growth companies.
- International investors also play a significant role, indicating global interest in established, high-potential startups.

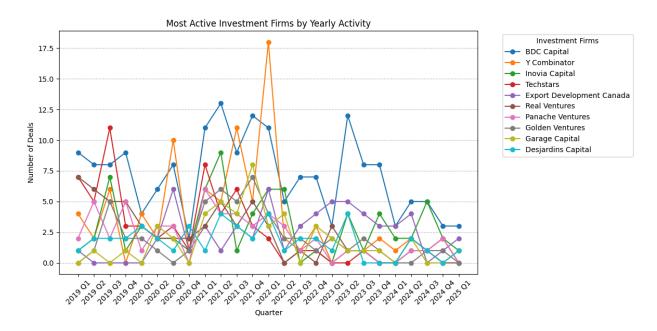
Graph 3.3



- Early Stages (Pre-Seed, Seed):
  - Canada: Average deal sizes are relatively smaller, reflecting the smaller market size and investment capacity.
  - International: Deal sizes are moderate, often influenced by diverse investor bases and varying market conditions.
  - USA: Typically shows the largest deal sizes, driven by a robust investment ecosystem and higher valuations.
- Later Stages (Series A, B, C, etc.):

- Canada: Deal sizes increase but remain smaller than the USA, indicating a growing investment landscape.
- International: Shows significant variability, with some regions matching or exceeding US deal sizes due to strong local markets and investor interest.
- USA: Continues to lead with the largest deal sizes, reflecting the maturity of its venture capital ecosystem and the presence of large institutional investors.

### Graph 3.4



Graph 3.4 showcases the most active investment firms and their funding activity per quarter from 2019 to early 2025.

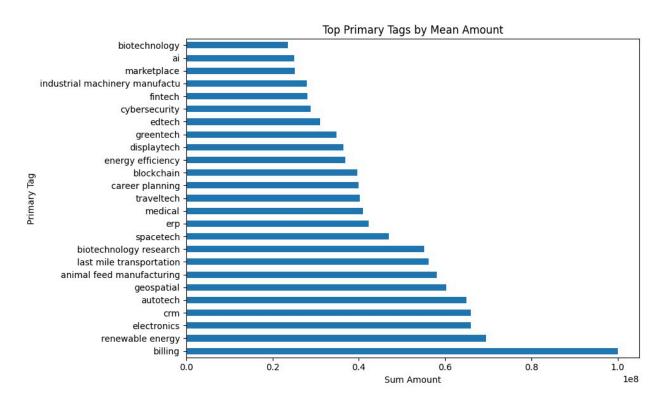
- BDC Capital and Y Combinator appear to be the most active investors, with frequent peaks in deal activity.
- Y Combinator saw a major spike around early 2022, reaching nearly 18 deals in one quarter, indicating a significant investment push.
- Other firms like Inovia Capital, Techstars, and Real Ventures also show steady participation but with lower peaks.

•	A downward trend in deal activity is observed post-2023, possibly indicating market	
	adjustments or shifts in investment strategy.	

## VII. Sectoral & Regional Insights

Investment trends vary across industries and geographic regions. This section identifies the most heavily funded tech sectors, including SaaS, FinTech, AI, HealthTech, and Blockchain, while comparing their growth over time. It also explores regional investment patterns, highlighting differences in funding allocation across major Canadian tech hubs such as Toronto, Vancouver, Montreal, Calgary, and Waterloo. By examining deal sizes and sectoral focus by region, this analysis provides a deeper understanding of local investment ecosystems and emerging hotspots.

Graph 4.1

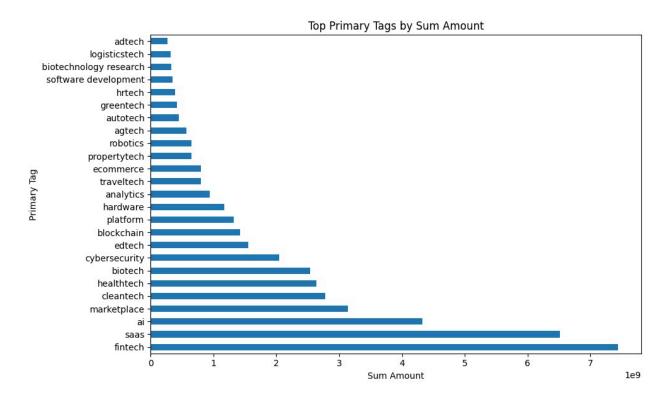


The graph highlights the top primary tags by mean amount (USD), indicating the most funded sectors nationally.

Top Sectors by Mean Amount:

 Biotechnology, FinTech, and Cybersecurity lead, reflecting high average investment per deal in these high-growth, innovation-driven sectors.  GreenTech and Energy Efficiency also show strong mean amounts, highlighting the focus on sustainability.

Graph 4.2



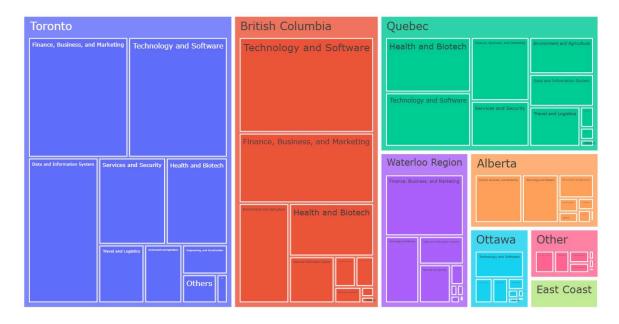
The graph highlights the top primary tags by sum amount (USD), indicating the most funded sectors nationally.

- Top Sectors by Sum Amount:
  - Biotechnology, FinTech, and Marketplace dominate in total funding, indicating both high deal sizes and high deal volumes in these sectors.
  - Industrial Machinery and Materials also feature prominently, reflecting investments in manufacturing and infrastructure.

## **Emerging Trends:**

 Blockchain, SpaceTech, and TravelTech show notable activity, signaling growing interest in decentralized technologies, space exploration, and travel innovations. • EdTech and MedTech maintain steady presence, driven by digital transformation in education and healthcare.

## Graph 4.3

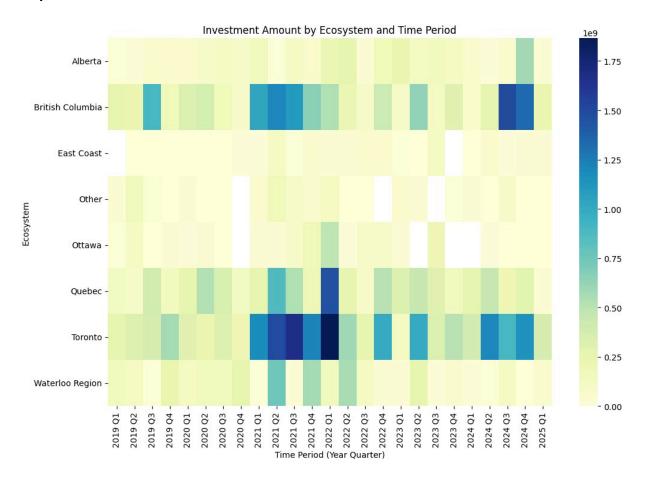


This treemap visualizes investment trends across key Canadian regions, categorizing sectors by their relative size and prominence.

- Toronto dominates in investment volume, with major allocations in Finance, Business, and Marketing, followed by Technology and Software. Other sectors like Health and Biotech and Data & Information Systems also receive significant attention.
- British Columbia prioritizes Technology and Software, making it the largest investment sector in the region, followed by Finance and Health & Biotech.
- Quebec stands out for Health and Biotech investments, with Technology and Software also playing a key role.
- Waterloo Region focuses on Finance, Business, and Marketing, aligning with its startup ecosystem and innovation-driven economy.
- Alberta and Ottawa show smaller investment sizes, with Alberta featuring Finance and Business, while Ottawa has a balanced spread across sectors.

 Smaller regions like the East Coast and "Other" areas have minor investment activity, suggesting fewer major funding rounds.

Graph 4.4



The graph shows investment amounts by ecosystem and time period across regions like Alberta, British Columbia, East Coast, Ottawa, Quebec, Toronto, and Waterloo Region.

## **Top Investment Hubs:**

- Toronto & Waterloo Region lead in investment volume, with large deal sizes and diverse sector preferences.
- British Columbia & Quebec are emerging as key players, focusing on sustainability, AI, gaming, and biotech.

 Alberta & East Coast show steady activity, primarily in early-stage and niche investments.

#### **Sector Focus:**

• Toronto: Strong in FinTech, AI, and HealthTech.

• Waterloo Region: Specializes in Software, Cybersecurity, and Al.

• **British Columbia:** Invests heavily in GreenTech, CleanTech, and Gaming.

• Quebec: Focuses on Al, Gaming, and Biotech, supported by government initiatives.

#### **Investment Trends Over Time:**

 2020–2021: Surge in investments due to pandemic-driven digital transformation and increased liquidity.

• 2022–2024: Steady growth, with Toronto and Waterloo maintaining dominance and British Columbia & Quebec increasing activity in AI and sustainability.

### VIII. Conclusion & Business Implications

The Canadian tech investment landscape has undergone substantial growth and transformation between 2019 and 2024. Key trends indicate a shift toward larger deals, sector-specific growth patterns, and evolving investor behaviors. To maximize opportunities, startups should align their fundraising strategies with high-growth sectors, while investors should focus on emerging trends and regional investment hotspots to optimize their portfolios.

# IX. Appendix & Code Repository

This section includes additional data tables, supplementary charts, and a link to the full code repository for reproducibility.

To use our dashboard, please go to <a href="mailto:github.com/ketjandr/runQLCxC">github.com/ketjandr/runQLCxC</a> and follow the instructions in the project's README.