The Narwhal List 2024

Benchmarking Canada's Scaleups

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The Narwhal List 2024

2022 was a year that many would choose to forget but 2023 was even more challenging for firms raising capital and growing revenue. Despite the challenging conditions, many Narwhals continued to make progress.

What is pleasing to see is the progress that Canada has made since 2017, the first year that the Narwhal List was published. In 2017, Canada had no Unicorns where we now have 24. The top 10 list was led by two health tech companies and they made up 50% of the top ten. There are now no health tech companies in the top 10 and that sector appears to be undergoing some strong challenges.

In 2017, we were able to identify 10 firms that were on path to becoming Unicorns. Now we not only have 24 Unicorns but there are a further 50 or so that are on a Unicorn track. Exhibit 1 shows the leading non-unicorn companies for 2023; this year there is one clean tech company among all of the computer technology companies.

The 2023 Narwhal List
Exhibit 1

Rank	Organization Name	Scaleup Ranking	Founded	Total $US Funding	City
1	Waabi	99%	2021	82,553,410	Toronto
2	Carbon6	99%	2021	81,935,547	Toronto
3	Tailscale	99%	2019	115,480,659	Toronto
4	CookOut	98%	2022	14,000,000	Toronto
5	UniUni	97%	2019	60,000,000	Richmond
6	Summit Nanotech	97%	2018	65,734,794	Calgary
7	LemFi	96%	2020	33,850,000	Toronto
8	AutoLeap	96%	2019	54,250,000	Toronto
9	Sanctuary Cognitive Systems	96%	2018	89,697,338	Vancouver
10	Doodles	96%	2021	54,000,000	Vancouver

The detailed lists of Canadian unicorns as well as leading companies from each of the computer, health, and clean technology sectors, follow: The complete list is also published at narwhalproject.org/narwhal-list/

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Benchmarking Canada's Scaleups

For eight years, the Narwhal Project has been benchmarking technology firms in Canada. To do this, we have identified the leading Canadian technology companies by measuring the results of all firms in Canada with greater than $10 million of capital. The $10 million cut-off was arbitrarily established to represent the approximate level companies start scaling. Crunchbase has records for 8,109 Canadian companies that have received more than $100,000 of funding (up from 6,419 in 2022.) Complete data were available for 680 of these that had more than $10 million of funding. Eight years ago, when we started this research, there were only 284 companies in our study.

For the last few years we have been benchmarking Canadian firms against all North American scaleups. To do this we compute a scaleup ranking that compares each company to over 15,000 scaling companies in North America. The ranking for each company shows their score as a percentile against these reference companies. This ranking, which we explain in more detail later, measures each company's ability to acquire capital to fuel growth, their growth rate in personnel and how big they have become in terms of the number of employees. The final number used in ranking and ecosystem evaluation is a percentile between 0% and 100%, showing the percentage of companies that any particular company is performing better at in scaling. Exhibit 2 shows the overall summary rankings for firms in the funnel:

Canada's Scaleup Funnel
Exhibit 2

Sector	Number	Average Scaleup Ranking 2022	Average Scaleup Ranking 20222
Entire Funnel	680	48.6%	49.8%
Computer Tech	548	49.9%	54.2%
Health Tech	57	37.0%	32.5%
Clean Tech	75	45.5%	49.2%

Exhibit 2 shows that the computer technology sector results exceed those of other industries, and the health tech sector lags behind other groups dramatically. As a group, Canadian firms did not perform to the average of North American firms and fell slightly from the prior year. While the health tech sector improved their scaling ability, computer and clean tech firms had declines in their overall performance.

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It is also possible to look at this funnel in terms of location. Exhibit 3 shows the city where each member of the technology companies in the scaleup funnel is located.

Technology Scaleup Funnel by City

Exhibit 3
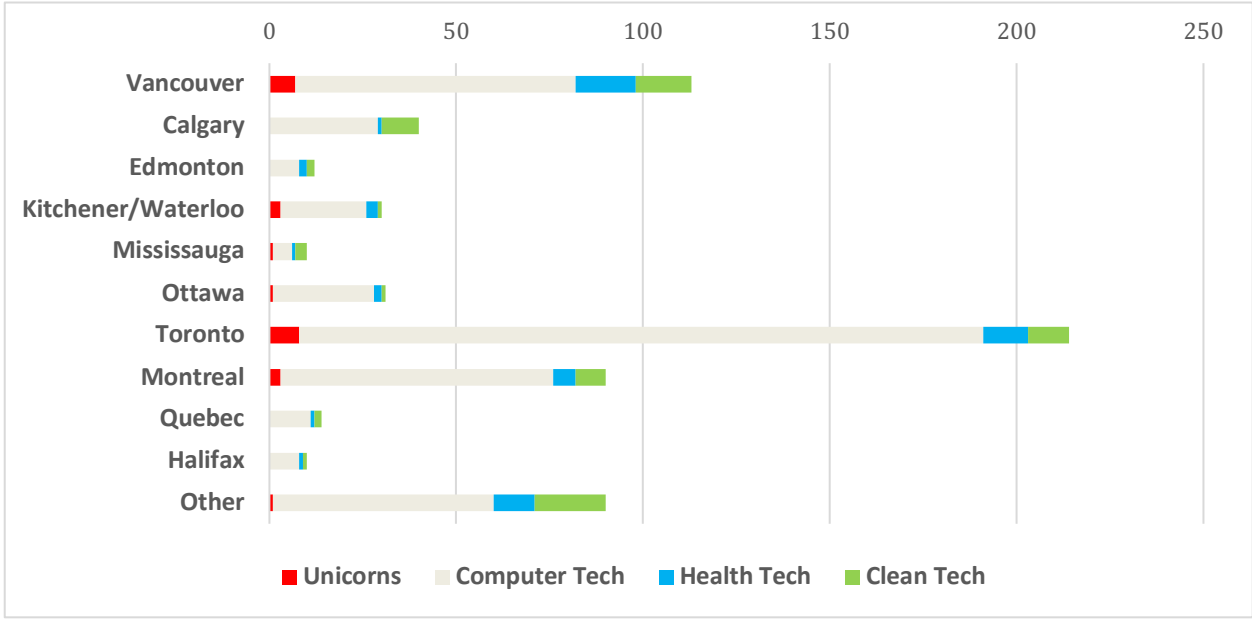
Similarly, this data can be seen in Exhibit 4 by city. Mississaugonians (sp?) will be delighted to find that they lead the pack.

Technology Scaleup Funnel by City

Exhibit 4

City	Number	Average Scaleup Ranking
Mississauga	10	54.71%
Toronto	224	51.52%
Montreal	94	50.92%
Calgary	44	48.11%
Vancouver	113	48.05%
Ottawa	32	47.39%
Quebec	15	47.31%
Kitchener/Waterloo	31	46.09%

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Edmonton	13	43.35%
Other	93	40.59%
Halifax	10	38.42%

Identifying which investors are backing companies in the funnel is also possible. For example, to identify leading venture capital investors, we computed the average scaleup score of each VC firm with greater than ten companies identified in the list of the top 5 investors by company in Crunchbase. Exhibit 5 shows the leading investors in the Canadian technology space.

Technology Scaleup Funnel by Investor
Exhibit 5

Investor	Number	Average Scaleup Ranking
Bessemer Venture Partners	10	64.7%
OMERS Ventures	16	61.6%
Inovia Capital	48	61.0%
Insight Partners	11	60.8%
Techstars	10	58.9%
Y Combinator	20	58.9%
Garage Capital	14	58.6%
Real Ventures	15	57.6%
Creative Destruction Lab (CDL)	62	56.6%
White Star Capital	13	55.7%

The average scaleup ranking in Exhibit 5 isn't computing the rate of return earned by each of the VC firms identified. Instead, it measures how well the companies invested in by these VCs are scaling.

Exhibit 6 below shows the results for 2,716 investments by 1,718 investors in 687 Scaling Canadian tech companies. The investors are shown as one of the top five investors in these companies by Crunchbase. What the data shows is what the list implies, that foreign funds are dominating the Canadian investing landscape.

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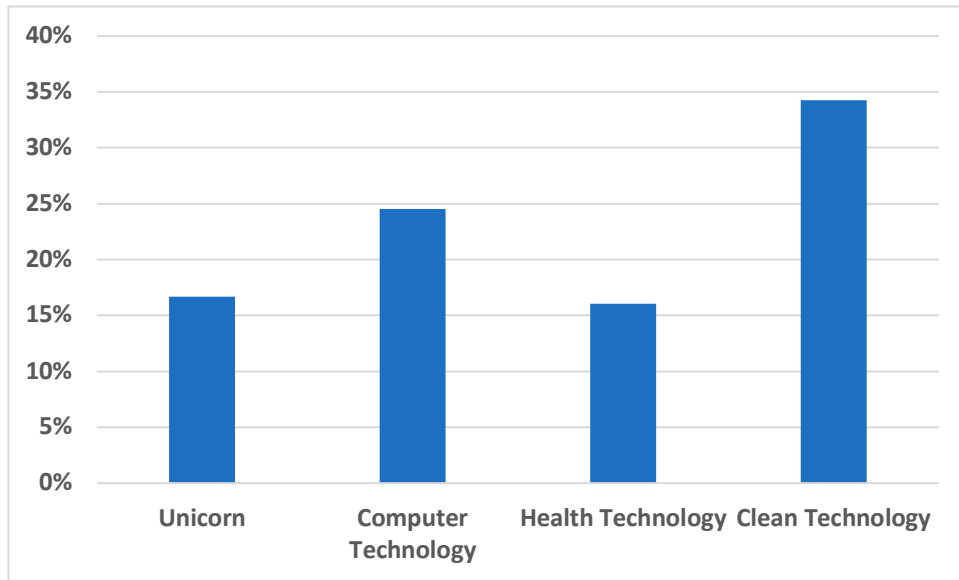**Location of Top 5 Investors**
Exhibit 6
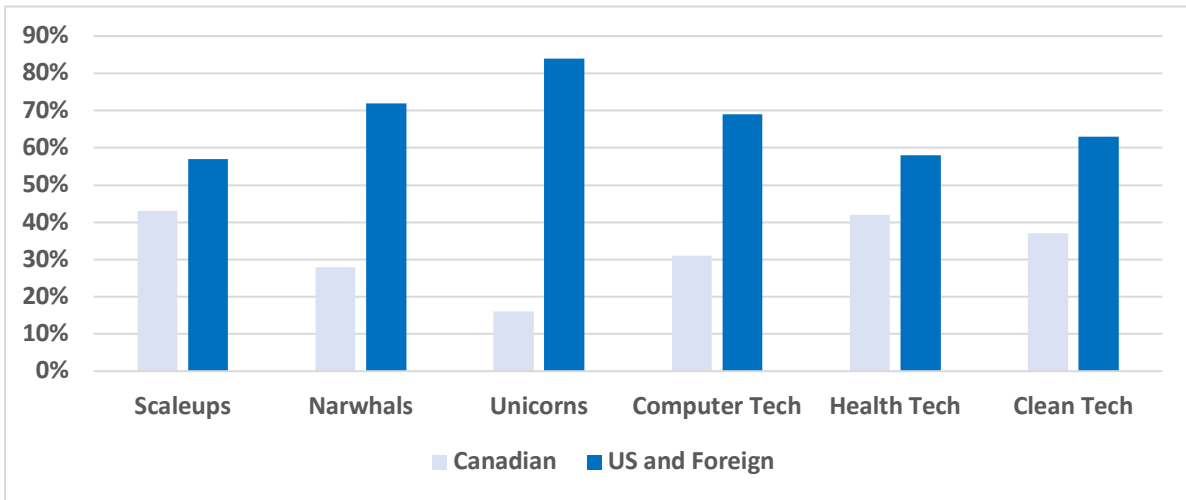
The average Canadian Scaleup grew 2.4% in terms of number of employees last year and the average growth by sector was as follows:

Average Growth in Employment
Exhibit 7
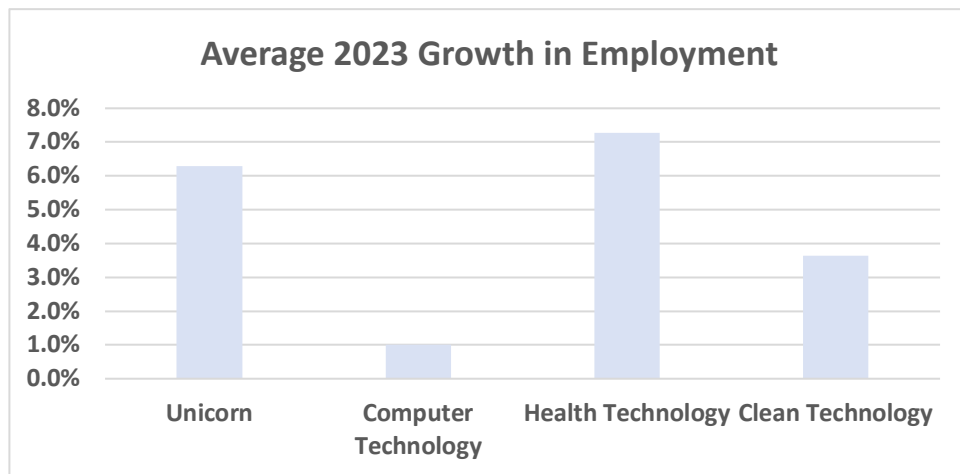
We can also look at the percent of firms getting funding in 2023.

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Percent of Firms Getting Funding
Exhibit 8

Finally, because the government seems to be obsessed with firms getting patents, we have calculated the percentage of Narwhal List firms (not all scaleups) that have patents.

Percent of Narwhals with Patents
Exhibit 9
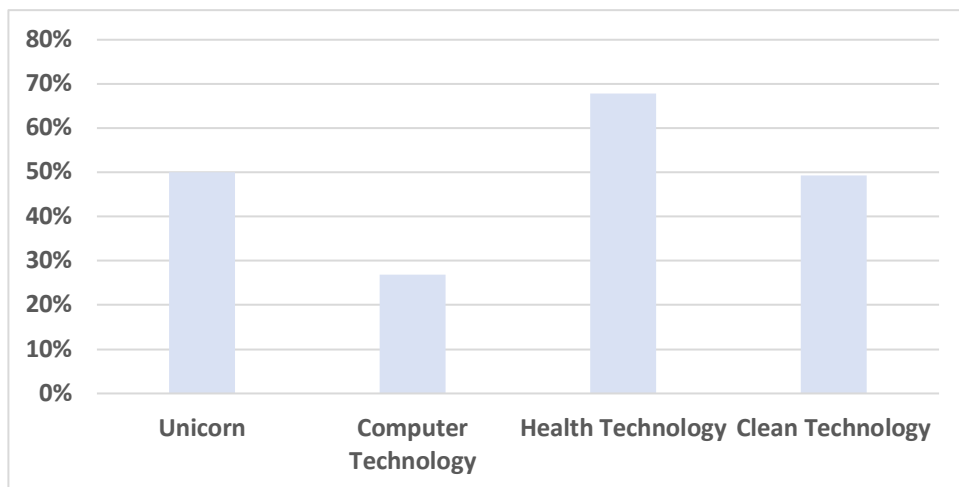
Having looked at the scaleup funnel, we can then turn to identify those firms at the top of the funnel.

Unicorns

It is hard to believe Canada had only three Unicorns in 2020. We are now up to 24 of them, creating five more in the last year.

Unicorn Statistics
Exhibit 10

Unicorns	2023	2022	2021	2020
Number of Unicorns	24	19	17	3
Number raising funds	4	11	17	1
Amount raised	325,000,000	1,494,157,850	3,290,659,000	70,000,000
Average amount raised	81,250,000	135,832,532	219,377,000	70,000,000

Canadian Unicorns
Exhibit 11

Rank	Organization Name	Scaleup Ranking	Founded	Total $US Funding	City
1	1Password	100%	2005	920,135,000	Toronto
2	Cohere	100%	2019	434,946,073	Toronto
3	Jasper	100%	2015	131,000,000	Montréal
4	LayerZero Labs	100%	2021	293,299,986	Vancouver
5	Tenstorrent	99%	2016	334,549,999	Toronto
6	Clio	92%	2008	386,000,000	Vancouver
7	Axelar Network	90%	2020	64,000,000	Waterloo
8	Assent	84%	2010	533,629,305	Ottawa
9	Trulioo	80%	2011	474,765,412	Vancouver
10	ApplyBoard	78%	2015	491,209,930	Waterloo
11	PAPER	77%	2014	389,637,755	Montréal
12	eSentire	77%	2001	411,228,870	Waterloo
13	PointClickCare	71%	1995	229,978,523	Mississauga
14	Blockstream	70%	2014	424,000,000	Victoria
15	Visier	69%	2010	216,500,000	Vancouver
16	Wealthsimple	66%	2014	900,409,434	Toronto
17	FreshBooks	64%	2003	331,869,317	Toronto
18	Hopper	64%	2007	729,679,549	Montréal

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19	Ada	60%	2016	190,620,620	Toronto
20	Semios	56%	2010	215,362,724	Vancouver
21	Maropost	56%	2011	10,000,000	Toronto
22	Dapper Labs	53%	2018	612,507,850	Vancouver
23	Nexii	50%	2019	119,525,406	Vancouver
24	Clearco	45%	2015	858,635,950	Toronto

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Computer Technology

Canada's computer tech Narwhals continue to make progress. While investing markets were challenged in 2023, 22 computer tech firms raised new funding, although at a much lower average per company than in the past.

Computer Technology Statistics
Exhibit 12

Computer Tech	2023	2022	2021	2020
Number raising funds	22	24	33	15
Amount raised	963,861,572	2,008,900,000	2,573,984,851	551,213,000
Average amount raised	48,193,079	83,704,167	77,999,541	36,748,000

Computer Technology Narwhals
Exhibit 13

Rank	Organization Name	Scaleup Ranking	Founded	Total $US Funding	City
1	Waabi	99%	2021	82,553,410	Toronto
2	Carbon6	99%	2021	81,935,547	Toronto
3	Tailscale	99%	2019	115,480,659	Toronto
4	CookOut	98%	2022	14,000,000	Toronto
5	UniUni	97%	2019	60,000,000	Richmond
6	LemFi	96%	2020	33,850,000	Toronto
7	AutoLeap	96%	2019	54,250,000	Toronto
8	Sanctuary Cognitive Systems	96%	2018	89,697,338	Vancouver
9	Doodles	96%	2021	54,000,000	Vancouver
10	Orennia	96%	2021	25,000,000	Calgary
11	Hostaway	96%	2015	178,222,813	Toronto
12	Photonic	95%	2016	99,341,014	Vancouver
13	Nesto	95%	2018	151,354,383	Montreal
14	Float	94%	2019	33,883,921	Toronto
15	BenchSci	94%	2015	164,160,477	Toronto
16	Xanadu	94%	2016	265,536,353	Toronto
17	Fuel Labs	93%	2019	81,500,000	Vancouver

18	Novisto	93%	2019	29,176,141	Montréal
19	7shifts	93%	2014	131,022,846	Saskatoon
20	Invert	93%	2021	24,464,235	Ottawa
21	Buf	93%	2020	93,466,515	Toronto
22	Neo Financial	92%	2019	235,757,890	Calgary
23	ODAIA	92%	2018	43,350,000	Toronto
24	Keep	92%	2021	10,675,474	Ottawa
25	Ryte	91%	2019	13,840,000	Toronto
26	Arteria AI	91%	2020	40,941,260	Toronto
27	OneVest	91%	2021	16,694,855	Calgary
28	Kepler Communications	91%	2015	177,060,177	Toronto
29	MineSense Technologies	90%	2008	123,601,109	Vancouver
30	Pine	90%	2021	21,305,856	Toronto
31	Relay	90%	2018	19,408,517	Toronto
32	Jobber	90%	2011	183,461,289	Edmonton
33	BoomerangFX	90%	2021	20,000,000	Mississauga
34	Certn	89%	2016	222,920,348	Victoria
35	ZayZoon	88%	2014	75,025,000	Calgary
36	Klue	88%	2015	83,000,000	Vancouver
37	Rose Rocket	88%	2015	63,000,000	Toronto
38	Boosted.ai	88%	2017	44,455,576	Toronto
39	GoBolt	86%	2017	178,331,405	Toronto
40	Auvik Networks	86%	2011	283,312,569	Waterloo

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Health Technology

Canada's health technology sector continues to be rebuilding, with three Narwhals raising funds although at a much lower scale. Scaleup rankings for the sector are considerably below that of the computer and clean technology sectors.

Health Technology Statistics
Exhibit 14

Statistics	2023	2022	2021	2020
Number raising funds	3	1	6	5
Amount raised in 2019	20,000,000	39,500,000	535,711,000	194,100,000
Average amount raised	10,000,000	39,500,000	89,285,000	38,820,000

Health Technology Narwhals
Exhibit 15

Rank	Organization Name	Scaleup Ranking	Founded	Total $US Funding	City
1	Congruence Therapeutics	93%	2021	64,581,196	Montréal
2	Alpha9 Theranostics	91%	2019	84,017,545	Vancouver
3	Gandeeva Therapeutics	90%	2021	39,301,997	Vancouver
4	Kardium	78%	2007	116,136,865	Richmond
5	Thryv Therapeutics	76%	2019	40,380,780	Laval
6	Highland Therapeutics	69%	2008	56,700,000	Toronto
7	STEMCELL Technologies	68%	1993	15,000,000	Vancouver
8	Nomic	68%	2017	18,025,686	Montréal
9	Aspect Biosystems	65%	2013	27,649,659	Vancouver
10	Synaptive Medical	65%	2012	53,884,478	Toronto

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Clean Technology

This sector is slightly different from other sectors as it is comprised not just of product companies but of companies such as Enerkem, which transforms waste into transportation biofuels, renewable chemicals, and everyday products, as well as others such as Westgen Technologies, which is a remote power generation company. This sector raised substantially less per firm in 2023 as well.

Clean Technology Statistics
Exhibit 16

Clean Tech	2023	2022	2021	2020
Number raising funds	4	5	5	4
Amount raised	230,961,555	646,395,209	579,914,000	265,000,000
Average amount raised	57,740,389	161,598,802	115,983,000	66,350,000

Clean Technology Narwhals
Exhibit 17

Rank	Organization Name	Scaleup Ranking	Founded	Total $US Funding	City
1	Summit Nanotech	97%	2018	65,734,794	Calgary
2	Svante	94%	2007	478,963,016	Burnaby
3	Ekona Power	89%	2017	68,001,585	Vancouver
4	Elysis	88%	2018	20,000,000	Montréal
5	GHGSat	87%	2011	147,314,207	Montréal
6	Westgen Technologies	85%	2019	16,515,242	Calgary
7	Eavor	83%	2017	364,771,218	Calgary
8	Enerkem	79%	2000	871,487,749	Montréal
9	e-Zinc	79%	2012	42,233,953	Toronto
10	Eddyfi	79%	2009	462,374,292	Quebec

Background and Methodology

The objective of the Narwhal List is to identify those Canadian companies experiencing success at scaling up. We have used publicly available data to assess firms' scaling ability so that any firm anywhere can be rated similarly. We have used statistics relating to growth, capital, and size as follows:

1. **Employee growth** has been measured by the increase in the number of employees over the last two years. While using revenue growth rates would be preferable, as a proxy, we have used LinkedIn data on employment growth for this analysis.
2. The company's **Financial Velocity** equals the total cash raised divided by the years. For the purpose of this analysis, we have used Crunchbase data.
3. The company's **size** is measured by the number of employees available on LinkedIn.

Measurements for these three data points are then compared with the data from over 15,000 North American firms that are also scaling. For each data point, a percentile ranking is computed, the three rankings are averaged, and an overall scaleup ranking is determined.

This Scaleup ranking can be used in several ways:

- To determine a firm's competitiveness when it is seeking capital.
- To quickly assess firms in a portfolio
- To compare firms to each other.
- To assess a firm's progress over time.

To accumulate the data used to prepare these lists, a search was performed on Crunchbase and LinkedIn. Companies had to be active and private in a technology business headquartered in Canada to be eligible. The investigation identified those companies on Crunchbase with over $10 million of capital.

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About the Narwhal Project

We help companies figure out how to scale efficiently. Working at the intersection of strategy, marketing and finance we provide companies with the analytical tools to make strategic decisions that will fuel efficient growth. We help them figure out the best markets to serve, how to differentiate effectively, ensure product market fit, improve unit economics and raise capital. The Narwhal Project was also established to research the underlying factors essential to creating world-class technology companies. Our objective is to understand how companies can accelerate their growth and how governments, companies, and academia can identify and adopt best practices in technology commercialization.

Charles Plant
Founder
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Charles Plant is a serial entrepreneur and scaleup economist. He was co-founder and CEO for 15 years of Synamics, a telecommunications software firm. Charles has been a co-founder of four, Board Chair at four and CFO of more than a dozen emerging technology companies. He has worked on financing and M&A transactions in investment banking, on the management committee and CFO of three venture capital firms, and as an advisor at several incubators. Charles has also served as an advisor to national, provincial and city governments on innovation policy. As an educator, Charles spent seven years on the faculty of York's Schulich School of Business teaching in the MBA program and has taught innovation and entrepreneurship at the University of Toronto. He has an MBA in marketing, a PhD in Economics and is a CPA/CA.