

The Narwhal List 2023

Evaluating Canada's Scaleup Funnel



The Narwhal List 2023

2022 was a year that many would choose to forget; however, it was still a good year for Canadian Narwhals. Only one company from the 2022 Narwhal List went public (Field Trip) versus eight the year before. Similar to last year, only two were sold. (Ironshore and Stormfisher). But we created four new unicorns. (eSentire, Xanadu, Assent and Axelar) And many others succeeded in raising significant funding.

What is pleasing to see is the progress that Canada has made since 2017, the first year that the Narwhal List was published. For example, the average funding of the top 10 companies on the list was \$1.1 billion in 2017; this year, it was \$3.9 billion. We have been tracking employees since then, and the top 10 had 2,400 employees, which has grown to 6,580. Exhibit 1 shows the leading non-unicorn companies for 2023; for the first time, they all happen to be computer technology companies.

The 2023 Narwhal List Exhibit 1

Rank	Organization Name	Scaleup Ranking	Founded	Total \$US Funding	City
1	Neo Financial	100%	2019	235,757,890	Calgary
2	Nesto	98%	2018	151,354,383	Montreal
3	Cohere	98%	2019	164,946,073	Toronto
4	Clutch	98%	2016	253,091,201	Toronto
5	Wealthsimple	96%	2014	900,409,434	Toronto
6	TRADE X	96%	2018	169,449,034	Mississauga
7	Vention	95%	2016	138,761,066	Montreal
8	Clue	95%	2015	81,000,000	Vancouver
9	League	94%	2014	171,139,506	Toronto
10	BenchSci	94%	2015	94,533,057	Toronto

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/

Canada's Scaleup Funnel

For seven years, the Narwhal Project has been evaluating the state of scaling up by technology firms in Canada. To do this, we have created a Scaleup Funnel, and from that funnel, we have identified the leading Canadian technology companies. The funnel measures 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. Keeping a funnel such as this can enable analysts to measure results over time and spot issues worthy of investigation. Crunchbase has records for 6,419 Canadian companies that have received more than \$100,000 of funding. Data for this funnel was obtained from Crunchbase and included 887 companies. Complete data were available for 640 of these. Six years ago, when we started this research, there were only 284 companies.

This year we made another change to the scoring system used to evaluate companies in the funnel. We now compute a score that compares each company to over 15,000 scaling companies in North America. The score we have given each company shows their ranking 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
Entire Funnel	640	49.8%
Computer Tech	378	54.2%
Health Tech	49	32.5%
Clean Tech	35	49.2%

Exhibit 1 shows that the computer technology sector results exceed those of other industries, and the health tech sector lags behind other groups dramatically.

It is also possible to look at this funnel in terms of location. Exhibit 3 shows the province where each member of the technology companies in the scaleup funnel is located and the average scaleup ranking for each province for major provinces. While Ontario leads the pack in number and scaleup ranking, the maritime provinces have scaling challenges.

Technology Scaleup Funnel by Province
Exhibit 3

Province	Number	Average Scaleup Ranking
Ontario	302	51.81%
British Columbia	114	51.32%
Saskatchewan	7	50.14%
Alberta	58	46.71%
Quebec	125	45.96%
New Brunswick	6	39.92%
Nova Scotia	13	30.84%

Similarly, this data can be seen in Exhibit 4 by city. Again, it should not be surprising that Kitchener/Waterloo leads the pack as they have been a hotbed for technology company scaling for many years.

Technology Scaleup Funnel by City
Exhibit 4

City	Number	Average Scaleup Ranking
Kitchener/Waterloo	29	55.29%
Vancouver	100	52.67%
Toronto	220	52.56%
Ottawa	25	49.89%
Quebec	17	48.94%
Calgary	46	48.50%
Montreal	92	46.44%
Edmonton	11	36.26%

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
FJ Labs	12	70.8%
Insight Partners	10	69.3%
Inovia Capital	40	66.6%
National Bank of Canada	11	65.9%
OMERS Ventures	15	65.8%
Golden Ventures	13	65.6%
Panache Ventures	17	65.4%
Y Combinator	18	64.8%
Garage Capital	13	64.3%
Caisse de Depot et Placement du Quebec	17	61.6%
Creative Destruction Lab (CDL)	49	61.3%
Silicon Valley Bank	26	61.3%
Round13 Capital	15	61.1%
DMZ	11	60.5%
Royal Bank of Canada	13	59.4%
Real Ventures	19	57.6%
Canadian Business Growth Fund	13	54.4%
Export Development Canada	46	53.0%
500 Global	11	52.1%
Espresso Capital	15	50.5%
Business Development Bank of Canada	43	49.6%
Fondaction	10	48.9%
Investissement Quebec	32	48.3%
BDC Venture Capital	88	47.7%
Desjardins Venture Capital	15	47.0%
Fonds de solidaritv© FTQ	30	45.3%
Sustainable Development Technology Canada	34	42.5%

MaRS Investment Accelerator Fund	12	41.6%
Government Of Quebec	16	40.1%
FedDev	13	30.9%
Anges Quebec	12	26.6%

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. The leaders on this list are US-based firms, and the bottom half of the list is predominantly populated with government and government-backed entities.

Exhibit 6 below shows the results for 2,356 investments by 1,161 investors in 886 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 either picking the best companies to invest in or providing them with better resources. And as surmised from the list, Canadian government entities have the worst record among these three groups.

Results for 1,161 Investors in 886 Scaling Companies

Exhibit 6

Results	Scaleup Ranking	Number of Investments
Foreign Funds	56%	1,261
Private Canadian Funds	52%	657
Government Sponsored Funds	46%	438
Total	53%	2,356

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 two years ago. We are now up to 19 of them, creating two more in the last year.

Unicorn Statistics Exhibit 7

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

Canadian Unicorns Exhibit 8

Rank	Organization Name	Scaleup Ranking	Founded	Total \$US Funding	City
1	Dapper Labs	100%	2018	612,507,850	Vancouver
2	Hopper	99%	2007	729,679,549	Montreal
3	1Password	99%	2005	920,135,000	Toronto
4	Ada	98%	2016	190,620,620	Toronto
5	Figment	98%	2018	165,009,947	Toronto
6	ApplyBoard	97%	2015	483,480,000	Waterloo
7	Tenstorrent	97%	2016	234,549,999	Toronto
8	Nexii	94%	2019	119,525,406	Vancouver
9	Assent Inc.	94%	2010	533,629,305	Ottawa
10	Trulioo	93%	2011	474,765,412	Vancouver
11	Clio	93%	2008	386,000,000	Vancouver
12	Xanadu	92%	2016	235,621,647	Toronto
13	Clearco	90%	2015	698,635,950	Toronto
14	FreshBooks	90%	2003	331,869,317	Toronto
15	eSentire	89%	2001	411,228,870	Waterloo
16	Visier	88%	2010	216,500,000	Vancouver
17	Axelar	84%	2020	63,750,000	Waterloo
18	Blockstream	78%	2014	299,000,000	Victoria
19	PointClickCare	78%	1995	229,978,523	Mississauga

Computer Technology

Canada's computer tech Narwhals continue to make progress. While investing markets were challenged in 2022, 24 computer tech firms raised new funding, increasing the average amount per company.

Computer Technology Statistics
Exhibit 9

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

Computer Technology Narwhals
Exhibit 10

Rank	Organization Name	Scaleup Ranking	Founded	Total \$US Funding	City
1	Neo Financial	100%	2019	235,757,890	Calgary
2	Nesto	98%	2018	151,354,383	Montreal
3	Cohere	98%	2019	164,946,073	Toronto
4	Clutch	98%	2016	253,091,201	Toronto
5	Wealthsimple	96%	2014	900,409,434	Toronto
6	TRADE X	96%	2018	169,449,034	Mississauga
7	Vention	95%	2016	138,761,066	Montreal
8	Klue	95%	2015	81,000,000	Vancouver
9	League	94%	2014	171,139,506	Toronto
10	BenchSci	94%	2015	94,533,057	Toronto
11	Properly	94%	2018	154,293,808	Toronto
12	KOHO Financial	94%	2014	278,866,074	Toronto
13	RenoRun	93%	2016	163,727,561	Montreal
14	Vena Solutions	93%	2011	272,805,416	Toronto
15	7shifts	93%	2014	131,022,846	Saskatoon
16	Certn	93%	2016	83,920,348	Victoria
17	Ledn	93%	2018	103,877,523	Toronto

18	Wrk	93%	2019	43,131,285	Montreal
19	Loopio	92%	2014	208,087,350	Toronto
20	Untether AI	92%	2018	152,000,000	Toronto
21	3Commas	92%	2017	40,000,000	Toronto
22	Auvik Networks	91%	2011	283,312,569	Waterloo
23	Vosker	90%	2019	125,233,316	Victoriaville
24	TealBook	90%	2014	73,102,173	Toronto
25	Sanctuary Cognitive Systems	90%	2018	89,697,338	Vancouver
26	AlayaCare	90%	2014	293,405,685	Montreal
27	Fullscript	90%	2011	267,000,000	Ottawa
28	Ataccama	90%	2008	150,500,000	Toronto
29	Vetster	89%	2020	37,424,578	Toronto
30	Resq	89%	2018	46,500,000	Toronto
31	Delphia	89%	2018	79,480,000	Toronto
32	POTLOC	89%	2014	45,275,445	Montreal
33	Damon Motors	89%	2017	53,562,662	Vancouver
34	Jobber	89%	2011	83,461,289	Edmonton
35	Wellington-Altus Financial	88%	2010	85,000,000	Winnipeg
36	TouchBistro	88%	2010	319,578,316	Toronto
37	Avidbots Corp.	88%	2014	106,350,535	Kitchener
38	AutoLeap	88%	2019	24,250,000	Toronto
39	Forma Ai	88%	2016	58,000,000	Toronto
40	Attabotics	88%	2015	193,969,861	Calgary

Health Technology

Canada's health technology sector continues to be rebuilding, with only one Narwhal raising funds and scaleup rankings considerably below that of the computer and clean technology sectors.

Health Technology Statistics
Exhibit 11

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

Health Technology Narwhals
Exhibit 12

Rank	Organization Name	Scaleup Ranking	Founded	Total \$US Funding	City
1	Deep Genomics	90%	2014	236,700,000	Toronto
2	Notch Therapeutics	89%	2018	86,000,000	Toronto
3	Virogin Biotech	79%	2015	204,000,000	Vancouver
4	Kardium	77%	2007	116,136,865	Richmond
5	Synaptive Medical	71%	2012	53,884,478	Toronto
6	Mara Renewables	62%	2012	42,500,000	Dartmouth
7	NuChem Sciences	62%	2011	37,600,000	Quebec
8	Qvella Corporation	61%	2009	45,399,000	Richmond
9	Nomic Bio	61%	2017	18,025,686	Montreal
10	Geneseeq	54%	2008	135,700,255	Toronto

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 Amp Solar, which is a global developer of flexible, clean energy infrastructure. As a result, this sector showed performance gains in 2022, increasing the total and average amount.

Clean Technology Statistics
Exhibit 13

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

Clean Technology Narwhals
Exhibit 14

Rank	Organization Name	Scaleup Ranking	Founded	Total \$US Funding	City
1	Svante	92%	2007	473,963,016	Burnaby
2	General Fusion	90%	2002	322,076,066	Burnaby
3	Amp Solar Group	90%	2009	1,032,480,045	Port Credit
4	Eddyfi	85%	2009	462,374,292	Quebec
5	Enerkem	85%	2000	871,487,749	Montreal
6	GHGSat	85%	2011	103,538,089	Montreal
7	Summit Nanotech	79%	2018	33,899,194	Calgary
8	Carbon Engineering	74%	2009	110,355,247	Squamish
9	Anaergia	72%	2010	50,658,111	Toronto
10	BluEarth Renewables	70%	2010	81,000,000	Calgary

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 and those on LinkedIn with over 200 employees and greater than 35% growth.

About the Narwhal Project

Working at the intersection of strategy, marketing and finance we provide companies with the analytical tools to make strategic decisions that will fuel their growth and valuation. 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

cplant@narwhalproject.org

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.