

Welcome Back to the Unicorn Club: 10 Years Later



COWBOY VENTURES

JANUARY 2024

Welcome!

In 2013, we started **Cowboy Ventures** to be the best partner for seed stage founders to build customer-loved tech companies that scale to sustained success. We're based in Palo Alto, CA and invest in enterprise and consumer tech companies across the US.

To inform our strategy, we built a dataset to learn from the most successful US- based, VC-backed companies of the prior decade. We called them “**unicorns**” as a shortener to capture their magic.

A decade has passed – so it's a good time to reflect on the wild ride of the past 10 years.

Read on for insights, explanations and predictions about our new herd of unicorns.

Learn more about us [here](#), follow us on [X](#), or [email us](#).

Big thank yous to Cow-lleagues [Amanda Robson](#), [Jillian Williams](#), [Matt Lu](#), and [Ted Wang](#) for help with this post, and to [Crunchbase](#), [PitchBook](#), [People Data Labs](#), and [Hiive](#) who provided so much of the underlying data.

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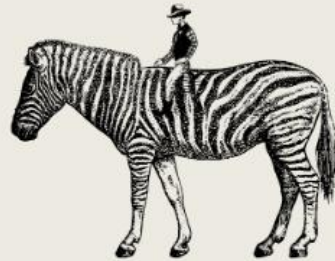
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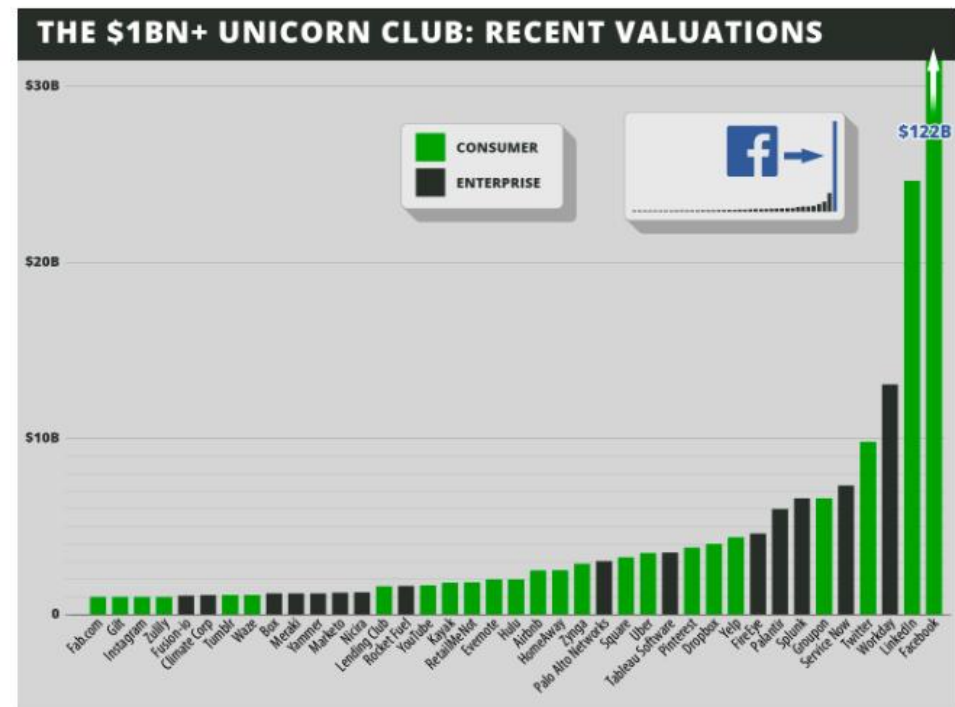
Going back in time: Unicorns in 2013



“Welcome to the Unicorn Club: Learning from Billion Dollar startups”

In 2013, we found just 39 unicorns out of thousands of startups. Some highlights:

- **62% had exited** - gone public or acquired
- **Consumer companies were the majority** (~60%), over 80% of the value
- **Enterprise capital efficiency** was impressive (26x!)
- One “**superunicorn**” (>\$100B) emerged – Facebook
- **Average founder age was 34**; 38 for enterprise
- Co-founding **teams of 3** were most common
- **The Bay Area (70%)** was unicorn HQ
- **There was little diversity** - no female CEOs; only 5% had a female co-founder



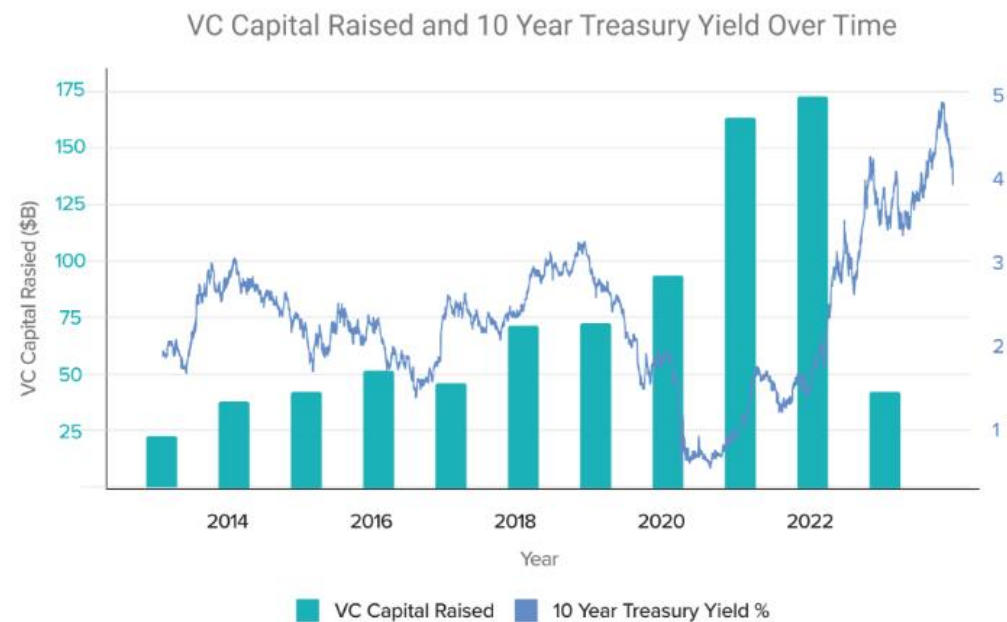
2013 to 2021: a rising tide for VCs, startups, and valuations

\$ in the VC ecosystem tripled in a decade

3x more capital (\$580B more!) was invested into VC funds.

The VC industry gained over a thousand new firms, and record-breaking funds.

Growth was driven by historical returns, growing markets, COVID-era effects and low interest rates.



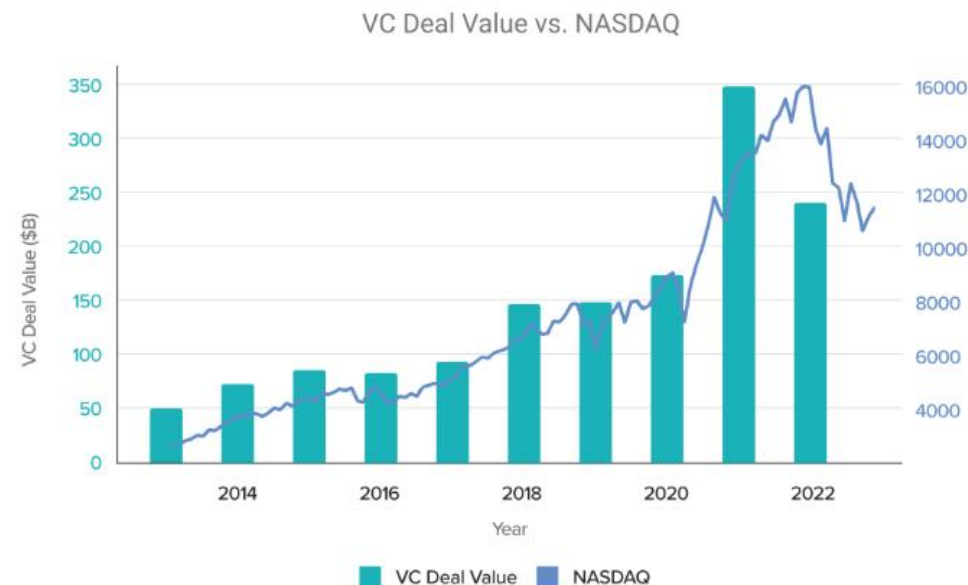
2013 to 2021: a rising tide for VCs, startups, and valuations

Investments in private cos mirrored Nasdaq's climb

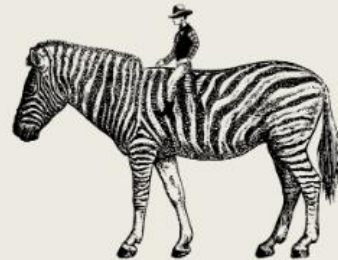
In Mar. 2022, the Fed raised rates, triggering a **multi-year downward effect** on multiples and enterprise budgets.

While **VC investment activity slowed** ([~40% stopped dealmaking in 2023](#)), large VC firms continued to raise large funds ([64% of 2022 VC raised went to \\$1B+ funds](#)).

Unicorns began to fall via **down rounds, public delistings and shut downs** (sadly, we're far from done).



A decade later: Unicorns in 2023



The 2023 Unicorn Club: 14x more companies!

1. Unicorns ballooned 14x in the past decade, from 39 to 532!
2. The pendulum swung hard to enterprise (78%), the inverse of 2013.
3. It's a bloated herd that will thin in coming years (likely to ~350).
 - BUT. There are many healthy 2023 unicorns that will grow larger.
 - And, we see a Software Unicorn Power Law - >1K US unicorns by 2033).
4. There have been very few exits - only 7% (35 companies) vs. 66%.
5. Capital efficiency declined significantly. This is generally bad.
6. OpenAI looks to be the first superunicorn of the decade, AI the megatrend.
7. The Bay Area gained in #s but lost ground, while other unicorn hubs grew.
8. More unicorns, more founders! But some things didn't change at all.
9. Diversity still wanted - lots of opportunity to improve team composition.
10. If past is prologue, expect a mixed outlook for this herd, and more future-corns.

Note: Like in our original analysis, our 2023 dataset is based on US based, VC-backed tech (sw, hw, internet) companies most recently valued at \$1B+ in public or private markets and founded in 2013 or later. Using last round valuation is an imperfect gauge, and likely inflates current herd size and value. Point-in-time methodology also misses companies. Stripe was founded in 2010, Snowflake, Coinbase in 2012. None were unicorns in 2013 so not in original analysis, and now they are >10 years old, so excluded from this dataset. We use PitchBook, Crunchbase, People Data Labs, and news articles as our sources, but private market data can be challenging – if something seems inaccurate or missing, please let us know.

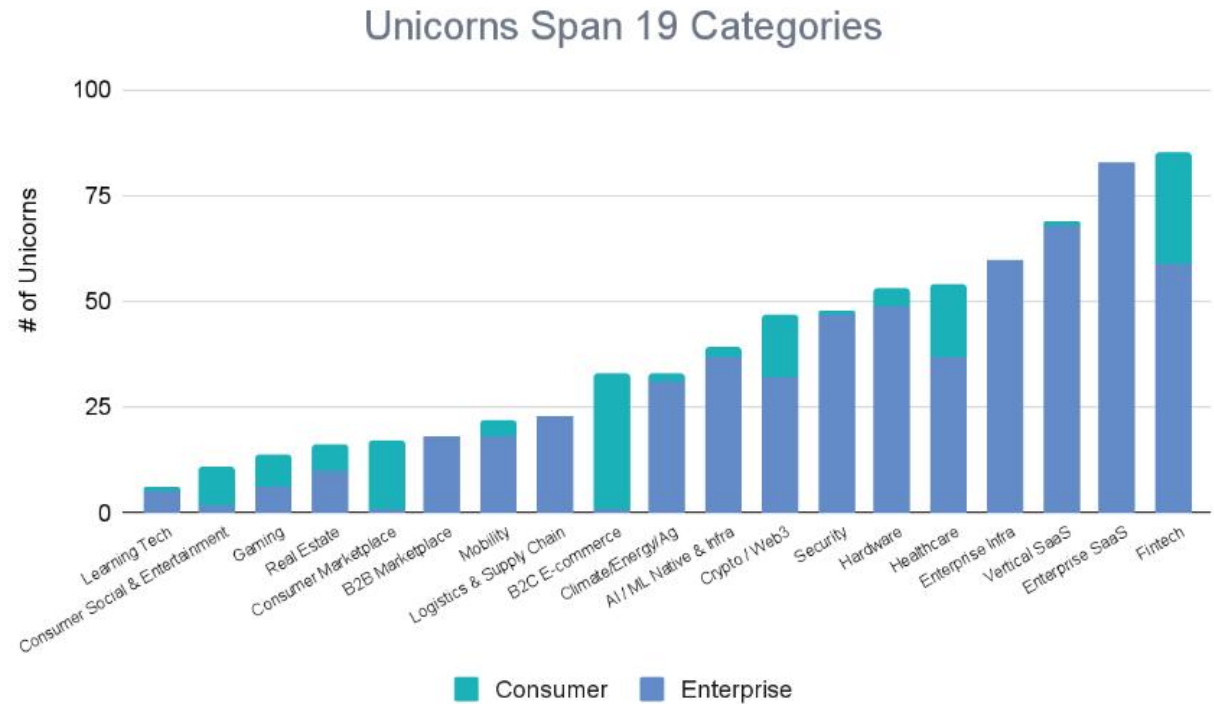
Unicorns ballooned 14x in the past decade, from 39 to 532

2023 unicorns innovate across an array of sectors

This herd is worth a whopping **\$1.5T in aggregate** (vs. \$260B in 2013), but represents <1% of VC-backed startups.

We tracked **19 sectors**; most weren't on our 2013 list (social, commerce, general enterprise dominated).

See the appendix for highest valued unicorns in each sector.

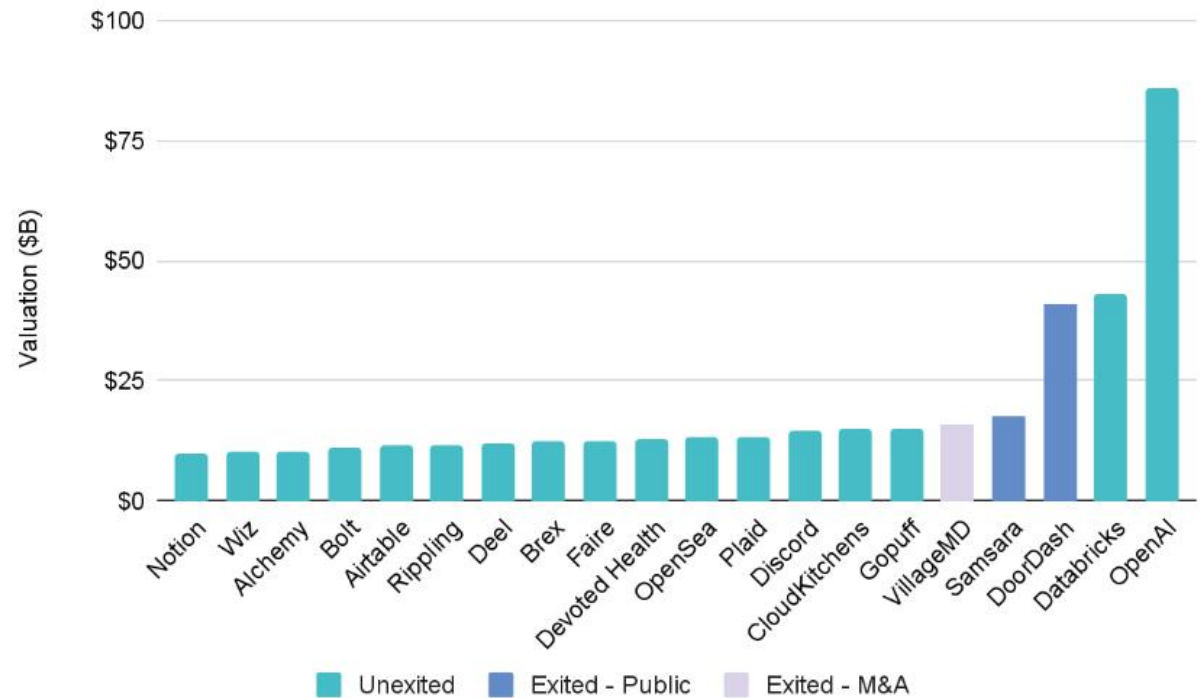


Unicorns ballooned 14x in the past decade, from 39 to 532

The most valuable unicorns are in very different sectors vs. 2013

The **most valuable** unicorns innovate across a spectrum from general AI to healthcare, food delivery, HR software and stock trading - a big difference vs. the 2013 list.

Note: 75% of the “unexited” companies in this top 20 were last valued in 2022 or earlier, so this list will likely change.



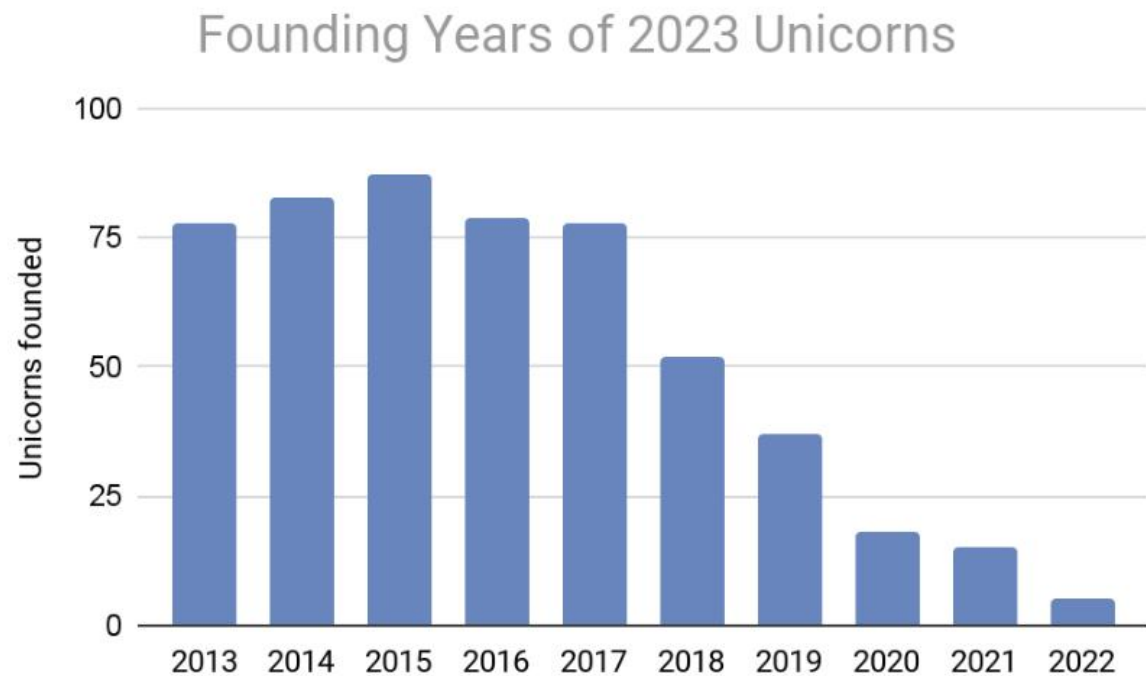
Unicorns ballooned 14x in the past decade, from 39 to 532

Companies of all ages became unicorns in the runup

Unlike in our 2013 analysis, **there were *not* best years for unicorn founding.**

Today's unicorns are **7 yrs. old on average**, same as 2013.

Anecdotally, **being crowned a unicorn too quickly could be bad luck.** Fallen unicorns like car leaser [Fair](#) was crowned just 2 yrs post founding; [Convoy](#), [Knotel](#) just 3 years after founding.

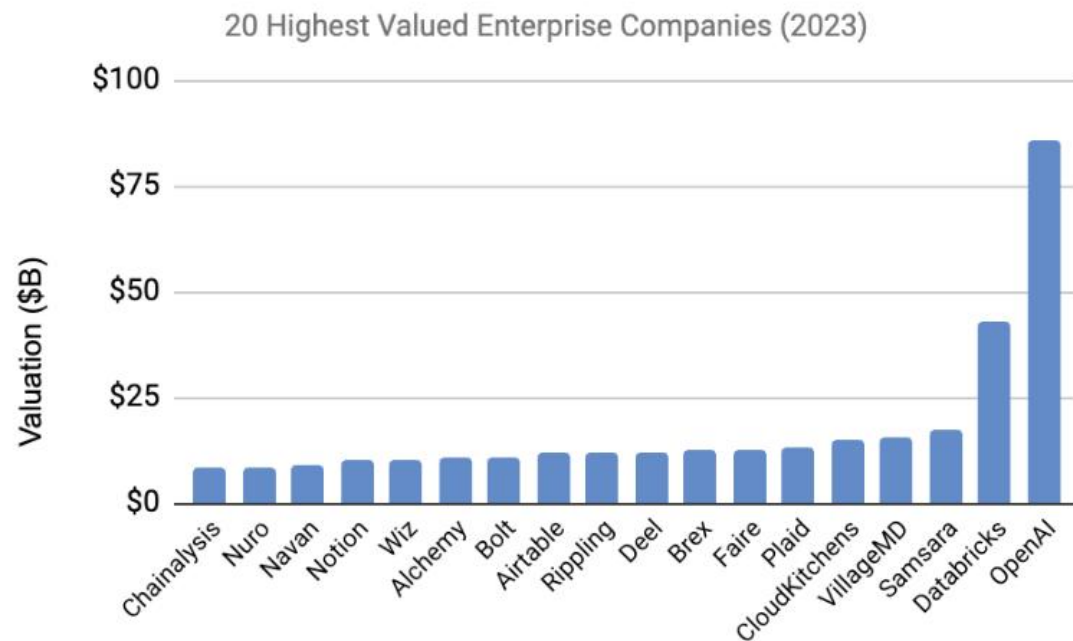


The pendulum swung hard to enterprise (78%), almost the inverse of 2013

Enterprise companies are worth a whopping \$1.2T, 80% of aggregate value

In 2013, 15/39 (38%) of unicorns were enterprise, comprising \$55B in total value. [Workday](#), [ServiceNow](#), [Splunk](#), and [Palantir](#) were most valuable.

Enterprise software now dominates our list with 416 cos, following a [decade of growth](#) in software spend and perceived higher capital efficiency, customer retention, and margins.



The pendulum swung hard to enterprise (78%), almost the inverse of 2013

The consumer landscape looks very different, is 20% of our list

Consumer cos used to be 80% of our list; now they are 20%.

The most valuable consumer companies today are in areas like **last-mile delivery, health, and gaming-driven platforms.**

The cyclical pendulum does swing. Given the hard shift to enterprise, we **expect more exciting consumer unicorns will be born** in coming years.



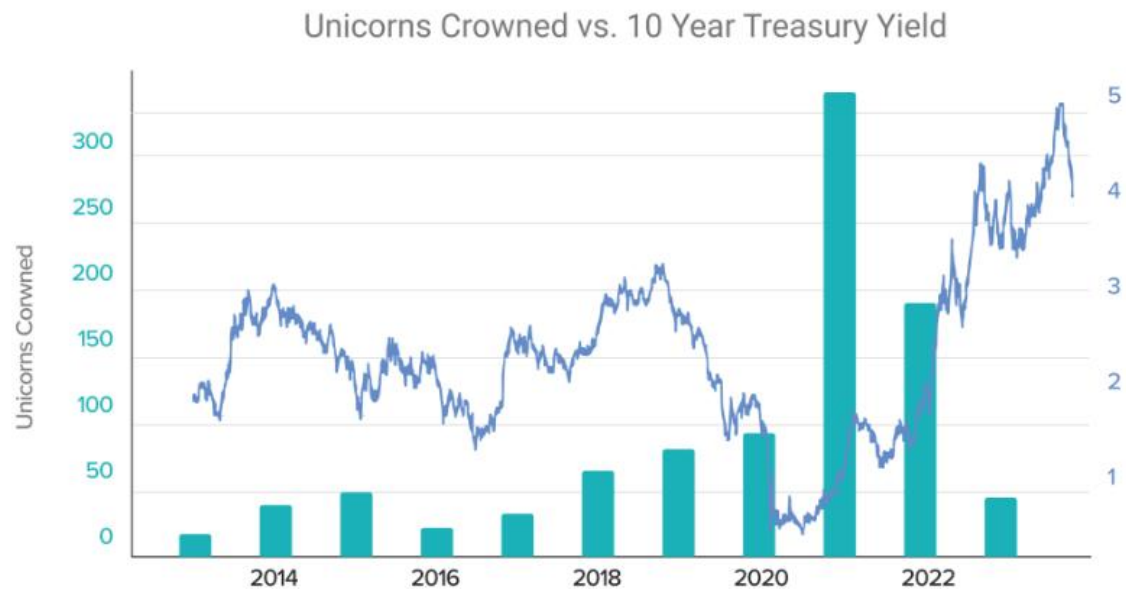
It's a bloated herd that will thin in coming years (to ~350)

A spate of ZIRPicorns were crowned when rates troughed

93% are 'papercorns' - privately valued on paper, not yet 'exited.' vs. 36% in 2013.

60% are 'ZIRPicorns' - last valued between Jan. '20 and Mar. '22 - peak public multiples & near zero interest rates.

Operating runways are getting short. Given the chilly M&A environment and resistance to downrounds, we expect more abrupt shutdowns in 2024.



Note: This chart illustrates *all* US VC-backed companies valued >\$1B for the first time in a given year, including those founded before 2013, which are not include in our analysis.
Sources: [PitchBook](#), [Federal Reserve Economic Data](#)

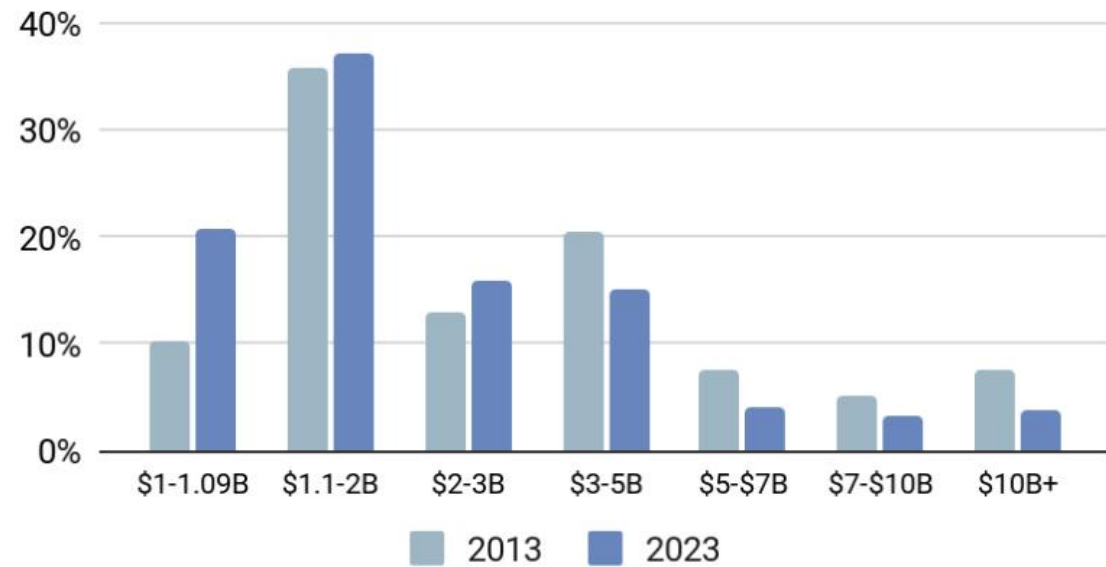
It's a bloated herd that will thin in coming years (to ~350)

Valuations skew lower in this herd, many on the cusp of 'unicorn'

Coining the term seems to have affected the market (sorry?!). **21% are valued at ~\$1B** (vs. 10% in 2013), and 46% at <\$2B.

~40% are trading below a \$1B valuation in secondary markets.

Unicorn Valuation Distribution



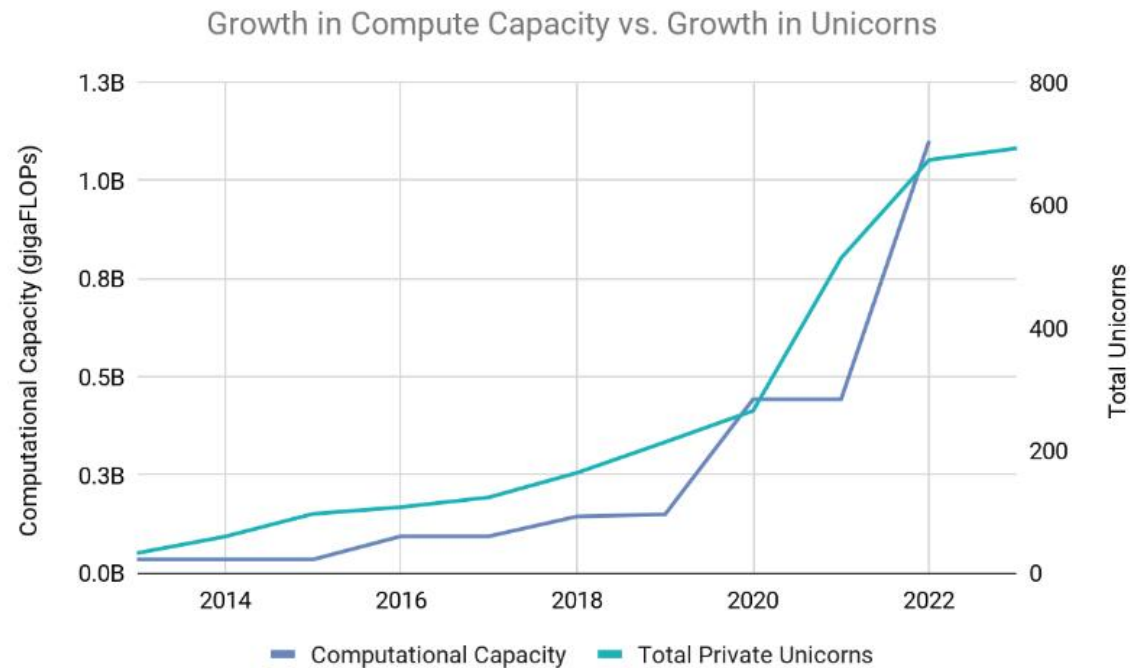
Sources: PitchBook, Crunchbase, [Hlivo](#) for secondary markets data (based on real order data for 290 unicorns on our list – it's possible more might trade <\$1B in secondary markets.) As of December 2023.

Despite expected culling, we see evidence of a Software Unicorn Power Law

An echo of [Moore's law](#)? Unicorn growth tracks compute growth

Unicorns grew **~30% on average YoY**, spurred by [enterprise software spend](#), consumer tech adoption, VC funding and interest rates.

As compute capacity, capability and usage increase, **unicorns seem to grow as well** – and AI will add fuel to this trend.



Sources: Our World In Data, plus PitchBook's list of total U.S.-based private unicorns. (Note this chart is for illustrative purposes, and PitchBook data includes unicorns founded before 2013, a larger list than in our analysis). As of December 2023.

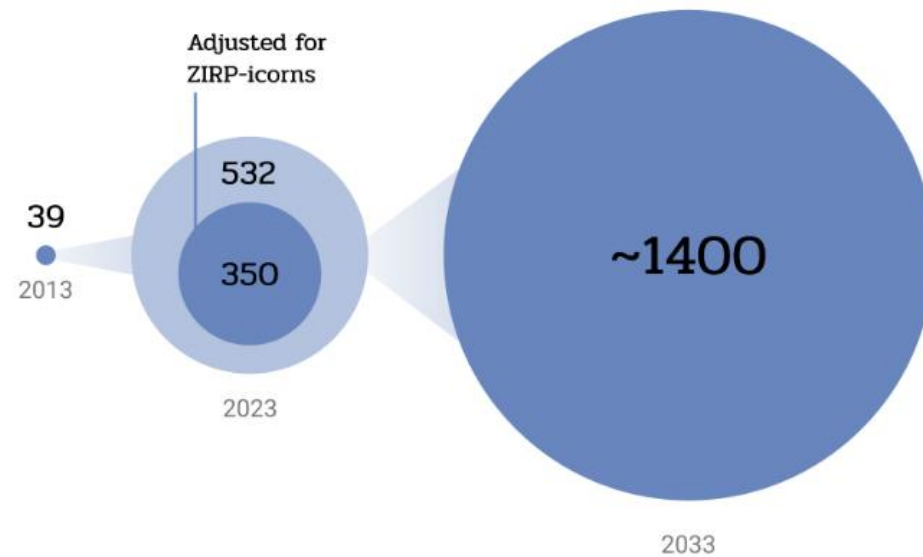
Despite expected culling, we see evidence of a Software Unicorn Power Law

There could be 1,400+ unicorns in 2033

Adjusting the current herd to 350 and growth to a less bubbly 15% means **4x more, or ~1,400 US unicorns in 2033.**

Counter arguments include scarcer VC, higher rates, software consolidation - but, **previous downturns have been fertile for unicorn founding.**

This is exciting for the future of innovation, jobs and the tech economy, despite current conditions.



There have been few exits - only 7%, vs. 66% in 2013

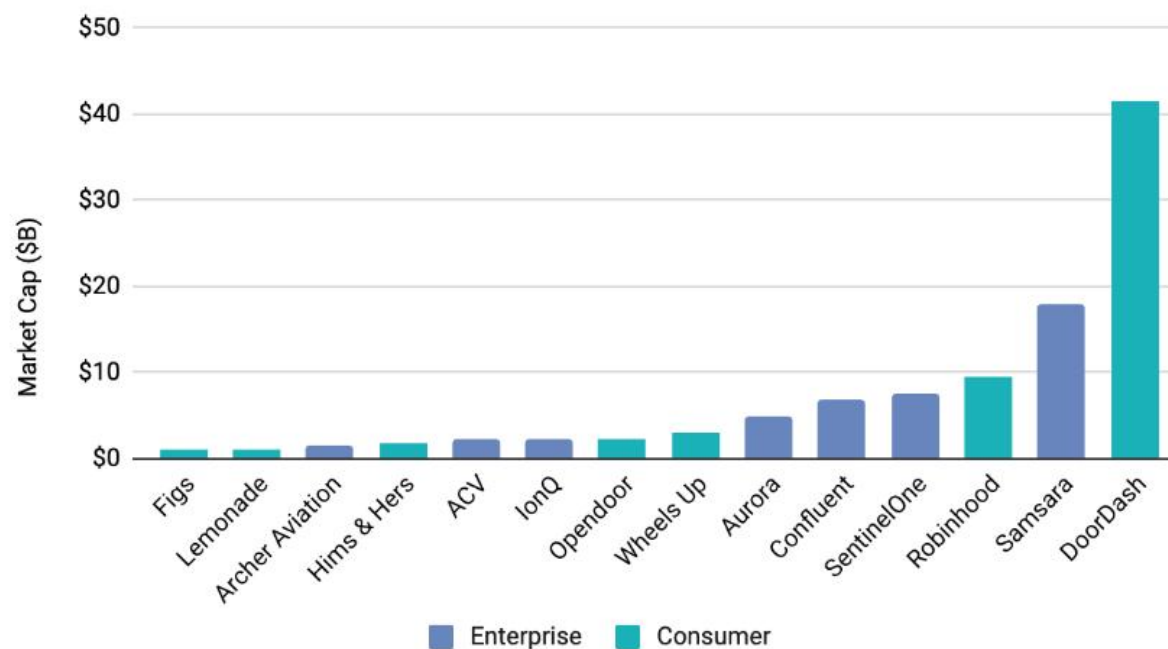
Just 14 unicorns (3%) are public today, vs. 41% in 2013

A paltry **35 of 532** became “**liquid unicorns**” - public or acquired for >\$1B, representing 7% vs. 41% in the prior decade.

Just 14 are public (3% vs. 41% in 2013) and **70%** of these CEOs scaled from startup to public co CEO.

Average time from founding to an IPO or acquisition was a **speedy 6 years**.

The Exclusive Public Unicorn Club



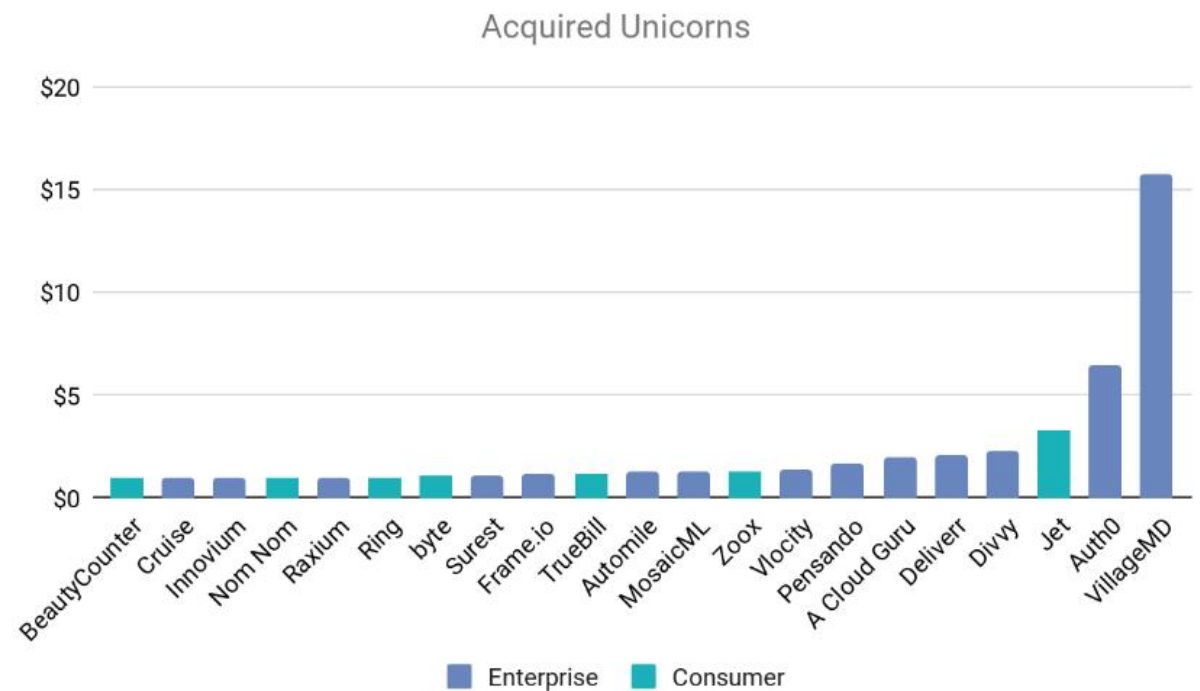
There have been few exits - only 7%, vs. 66% in 2013

Just 21 unicorns (4%) had an 'exit' via acquisition, vs. 23% in 2013

Just 21 companies were acquired, spanning a diversity of sectors (and $\frac{2}{3}$ enterprise, $\frac{1}{3}$ consumer).

Average acquisition price was \$2.4B, almost 2x 2013.

Notably, 33% involve hardware (e.g. Cruise, Raxium, Ring, Zoox), likely a consequence of low interest rates for both unicorns and acquirers.

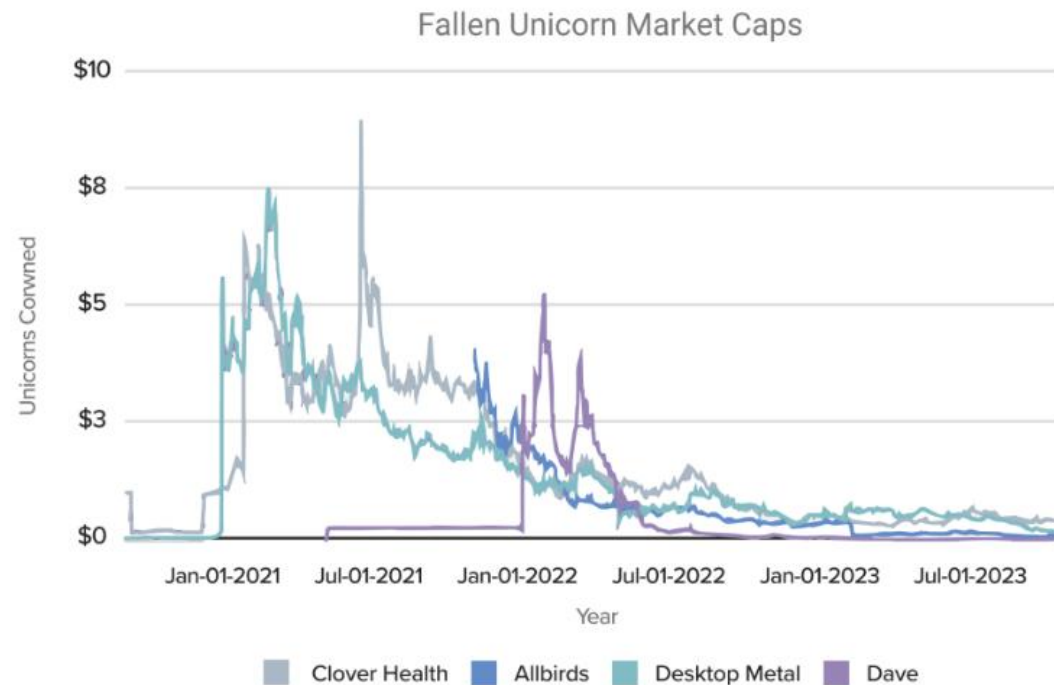


There have been few exits - only 7%, vs. 66% in 2013

Many unicorns struggled in public markets

As a reflection...there are **more fallen public unicorns than healthy public unicorns** in this herd.

At least 20 unicorn companies went public before falling below <\$1B in value (hello SPACs), vs. just 14 current public unicorns.



Unicorn capital efficiency dropped significantly

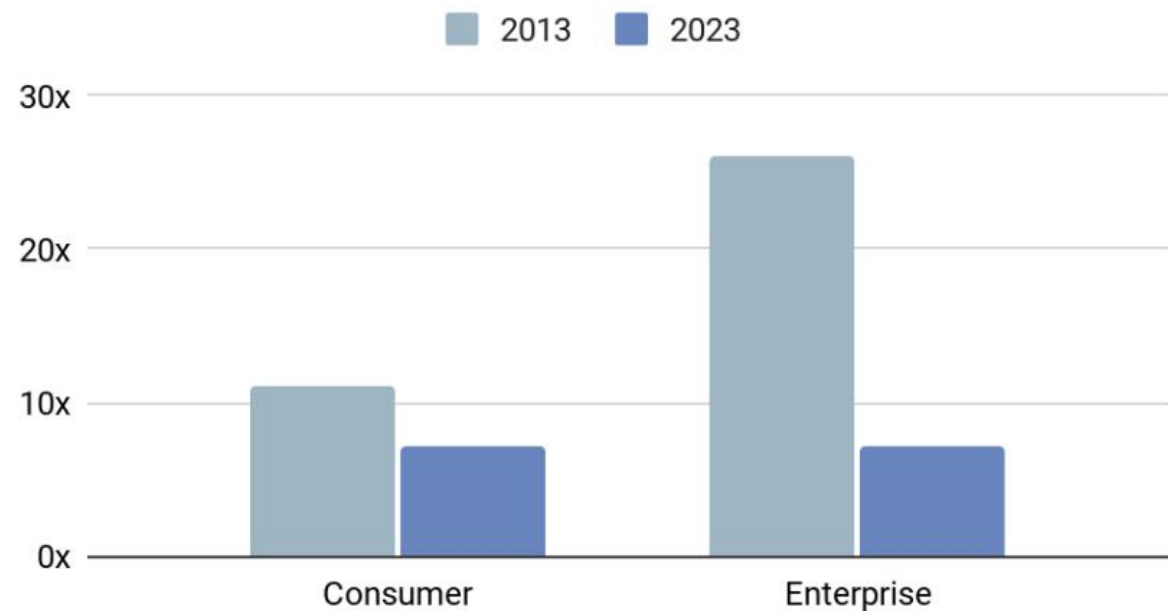
This will be bad for exits, venture returns, founders and employees

Low rates, overconfidence in historical returns, and competition caused **many to overlook valuations, margins, payback periods and burn rates.**

Enterprise capital efficiency plummeted **from 26x to 7x.** Consumer also dropped **from 11x to 7x.**

For the startup industry to once again deliver outsized returns, **we have to regain capital efficiency discipline.**

Average Capital Efficiency (Valuation / \$ Equity Raised)



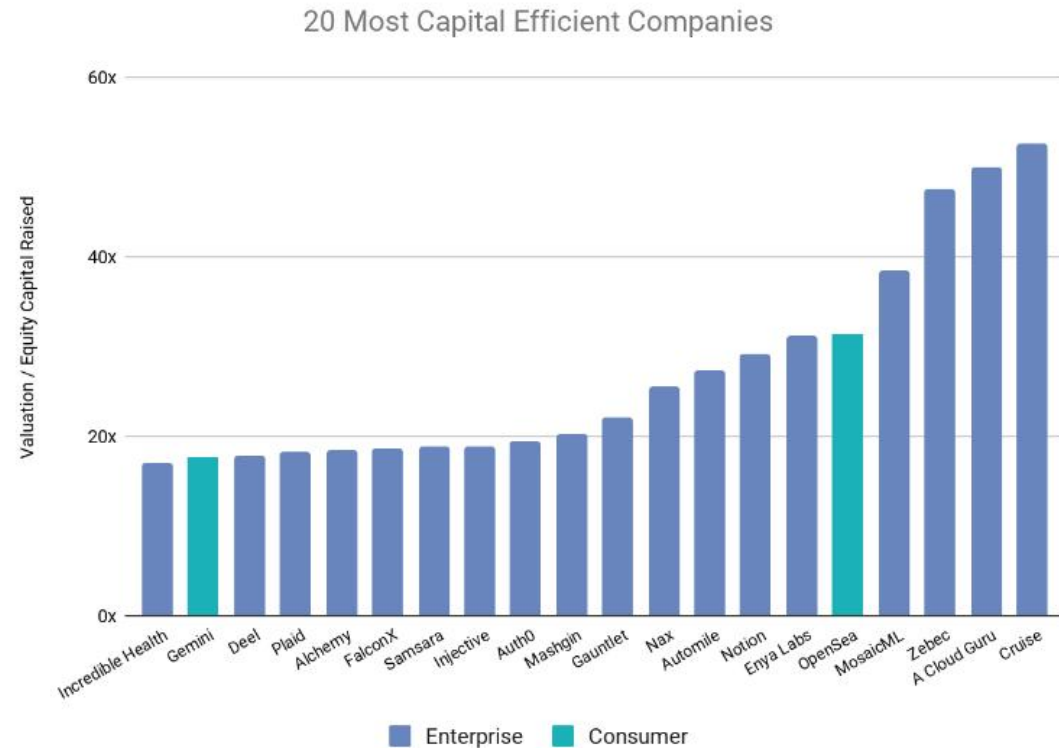
Note: We define capital efficiency as current valuation divided by private capital raised. Sources: PitchBook, Crunchbase. As of December 2023.

Unicorn capital efficiency dropped significantly

Shoutouts to highly capital efficient companies, with caveats

The vast majority of this list is 'Papercorns', so this list likely does not reflect future realized capital efficiency.

In our 2013 analysis, Workday and ServiceNow were efficiency standouts, each at 60x. **Their market caps are 5x and 18x bigger now** - better investments than many private companies in the past ten years.



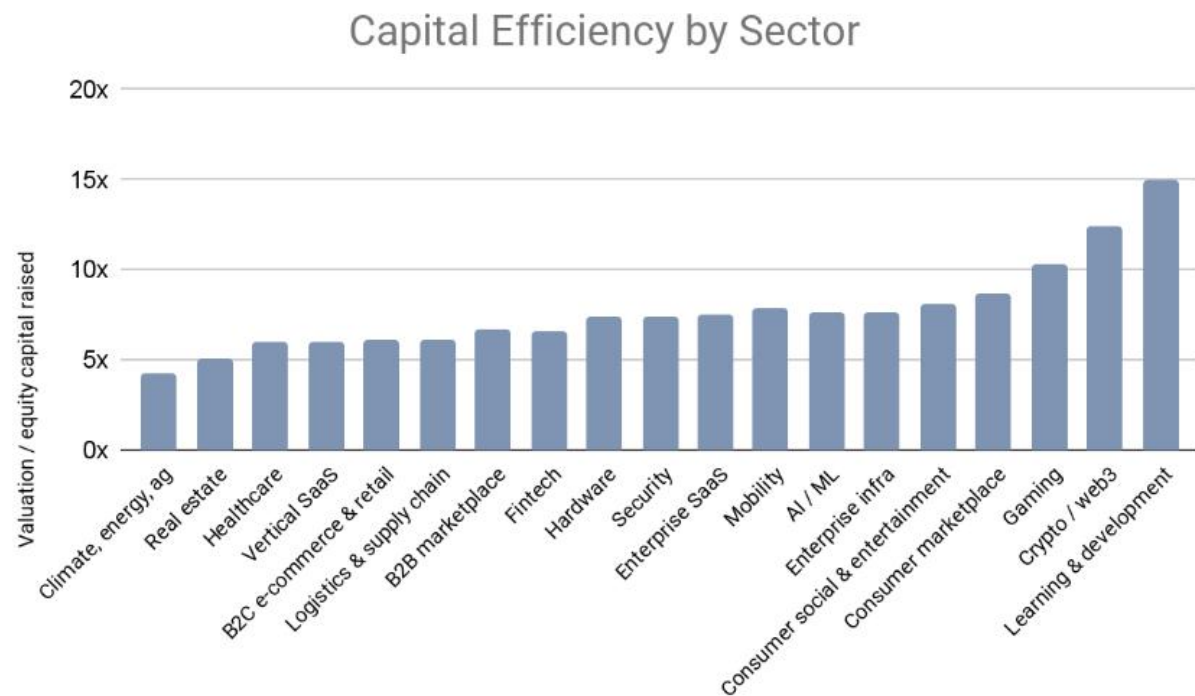
Note: Cruise's efficiency is based on their [\\$1B acquisition by GM](#) in 2016 after being founded in 2014. They have raised billions more since then as a GM subsidiary, which makes post exit efficiency very different. Sources: PitchBook, Crunchbase. As of December 2023.

Unicorn capital efficiency dropped significantly

Some 2023 unicorns are currently worth <2x capital raised

The least capital efficient companies are in an array of sectors, the most common being in **climate/energy, healthcare and fintech.**

Investors would have been better off investing in public superunicorns like Salesforce, Amazon, and Microsoft, up 8x, 9x, and 9x respectively in the past decade, than in some private unicorns.



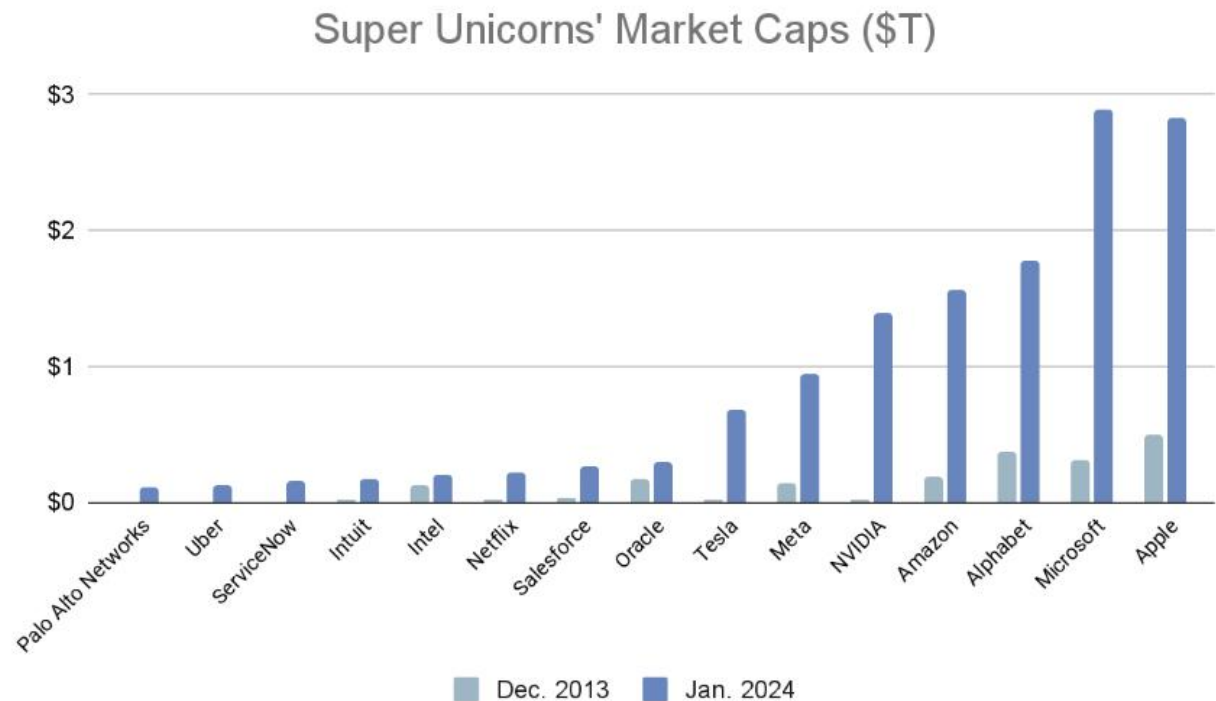
OpenAI is likely the decade's superunicorn, AI the megatrend (vs. social last decade)

Superunicorns grew superpowers 2013-2023

There are now 15 superunicorns (>\$100B), and they grew more valuable in the past decade.

AI seems to be the megatrend of the decade, with OpenAI close to the first AI super unicorn at just 8 years old.

Crypto looked at times like the potential megatrend of the decade - Coinbase hit \$76B in Nov. 2021 (worth ~\$32B now).



Note: Coinbase was founded in 2012, so is not included in this dataset. Sources: PitchBook, Crunchbase. As of December 2023.

The Bay Area gained in #s, but lost ground as unicorn HQ, while other hubs grew

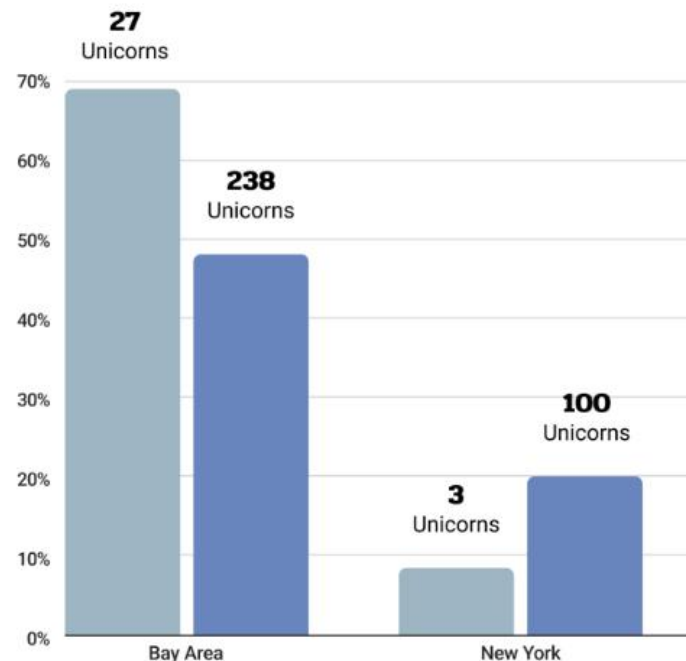
COVID effects likely helped spread unicorns across the country

Bay Area is still the largest unicorn pasture, but lost ground.

New York grew a LOT (11% to 19%), now home to 100 unicorns (~40% crypto/web3 or fintech).

Many geos grew from ~0 to be home to >10 unicorns.

Share of Unicorns



New hubs with 10+ Unicorns

- Los Angeles: 36
- Boston: 20
- Seattle: 14
- Austin: 13
- Chicago: 13
- Denver: 11

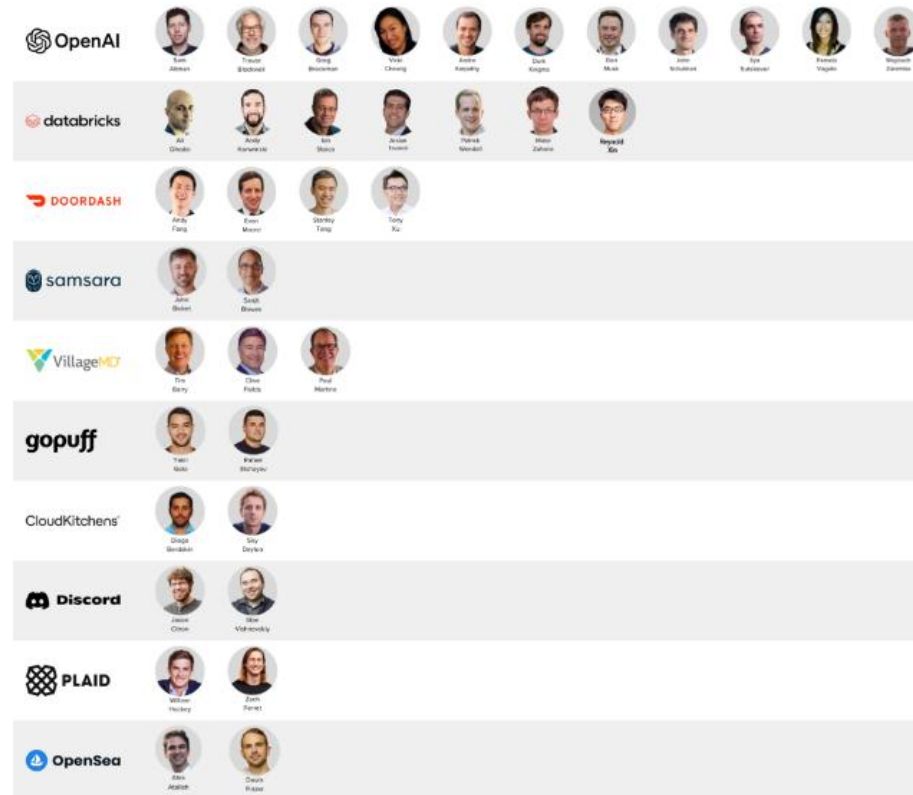
More unicorns and geos, more co-founders

Notice what most of these founders have in common?

14x more unicorns, ~14x more co-founders! Our list now includes 1,300+ founders vs. ~100 in 2013.

We tracked data for ~1,300 founders using publicly available information and People Data Labs.

Co-founders of the 10 Highest Valued Unicorns



More unicorns and geos, more co-founders

Some things have remained remarkably consistent since 2013

83%

of unicorns had multiple founders

(90% last time)

3 co-founders on avg. (same as last time).

35

Average age at founding

One year older vs. 2013. 20 somethings and college dropouts are still outliers.

~70%

of founders worked previously in tech

very similar to last time.

65%

of founders went to school or worked together

(a decrease from 90%)

70%

of teams have a co-founder with founder experience of some kind

(vs. 80%).

More unicorns and geos, more co-founders

More diverse set of backgrounds: highest school 'market share' just 5%

Only ~20% of founders went to a "top 10 school", vs. 66% in 2013.

No school has >10% "market share." Stanford still leads as the alma mater of 5%, vs. 33% in 2013.

40% of co-founders are 'non-technical' - a big change (in 2013, 90% of CEOs had technical degrees).

Schools with 10+ Unicorn Founding Alumni

30+ Founders |   Massachusetts Institute of Technology  HARVARD UNIVERSITY

20+ Founders |  Cornell University  Berkeley UNIVERSITY OF CALIFORNIA  PENN STATE UNIVERSITY

10+ Founders



More unicorns and geos, more co-founders

Prior employers include superunicorns, banking, consulting and military

20% of co-founders previously worked at a superunicorn - likely tied to 70% of co-founders having worked previously in tech.

Google leads as breeding ground for ~6% of co-founders.

Top Prior Employers

40+ Founders |   

20+ Founders |      

10+ Founders |     
    
     

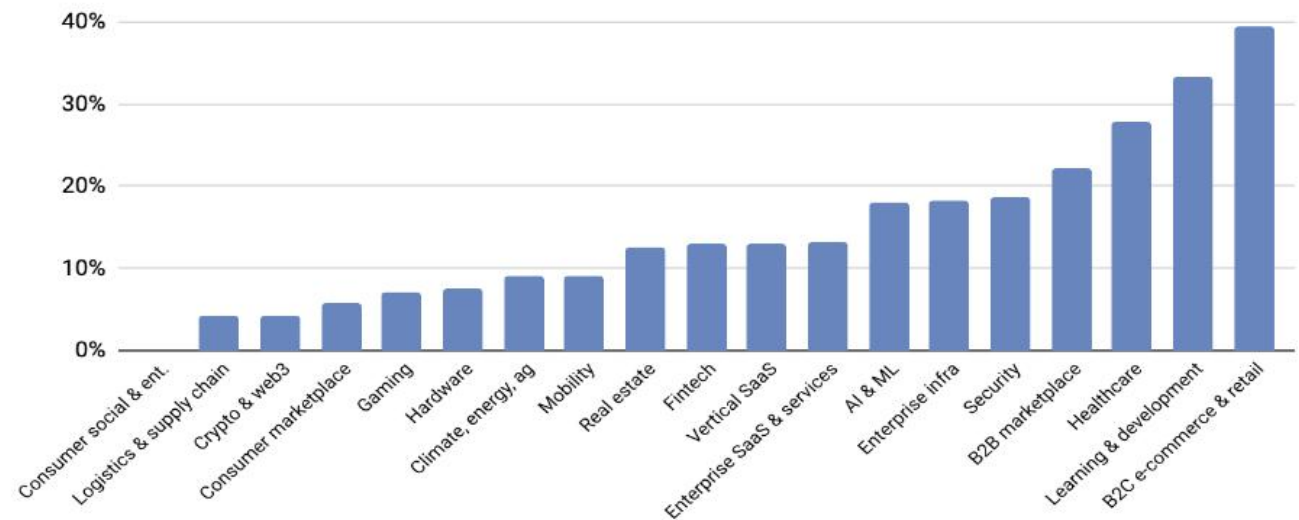
Diversity wanted - LOTS of opportunity to add diversity to founding teams

Some sectors have more gender diversity at the top vs. others

Slow improvement in gender:
14% have a female co-founder (vs. 5% in 2013),
5% have a female founding CEO (0% in 2013!).

[Myriad studies](#) show diverse teams deliver better results:
of the elite public unicorn club, 14% have female CEOs (2) and 21% have female co-founders (3).

Share of Unicorns with a Female Founder (2013)



If the past is prologue, expect change ahead for this unicorn herd and an even broader, larger list in 2033

The original 39 unicorns have had mixed fates

- 17 are currently public companies and **~80% are worth more today.**
- Three more became superunicorns (ServiceNow, Uber, Palo Alto Networks). Network effects companies grew stronger.
- Enterprise unicorns 6x'd in value since 2013. All but one maintained unicorn status through a second decade.
- Consumer has been bumpier. 33% are smaller today (e.g., Gilt, Lending Club); some have had fire sales or shut down (e.g., Zulily).

If the past is prologue, expect change ahead for this unicorn herd and an even broader, larger list in 2033

VC firm changes will continue to have a big impact

- In 2013, there were ~850 active venture funds. Today there are **~2,500**.
- As unicorns fall out of the dataset, there will be more change at VC firms. Some VCs will retire, some will raise smaller funds (right-sized for better returns, ioho) and/or downsize teams, some firms will fold. **We've seen "VC musical chairs" in previous cycles, and it's happening again.**
- As noted in our original post, multi-\$B VC funds need multi-\$B outcomes to deliver acceptable returns. As funds got bigger, incentives changed which **drove valuations higher and had some negative consequences** .
- We don't expect VC firms to go back to 2013 in staff or AUM. But lessons here should **give founders, VCs and LPs lots of caution about too much money, too early and too fast - and from whom.**

So, what does this all mean?

- Crunching the numbers, you can't help but reflect on the **enormous societal and financial impact** VC-backed tech has had.
- The growth and spread of tech companies is akin to living through a **next Industrial Revolution, powered by software.**
- **Macroeconomic factors and cycles matter.** The massive influx in private capital funded lots of companies. But capital efficiency declined, which will erode financial outcomes, given how many are still 'papercorns'.
- **The cycle is not over.** The venture ecosystem will feel the impact in years to come as more layoffs, down rounds and shutdowns impact founders, employees and investors.
- **Valuation is a convenient but imperfect, impermanent measure of success.** Becoming a unicorn too early might even be a curse. Future founders can see how chasing valuation without a focus on underlying fundamentals can lead to unintended poor outcomes.
- There were times in the decade when many believed building a unicorn was easy and common. Elder unicorns know - it's not. It requires the **sustained magic of product and velocity, customer love, business model economics, capital efficiency, relentless execution and more,** over many years.



A Deeper Dive: Unicorns by Sector



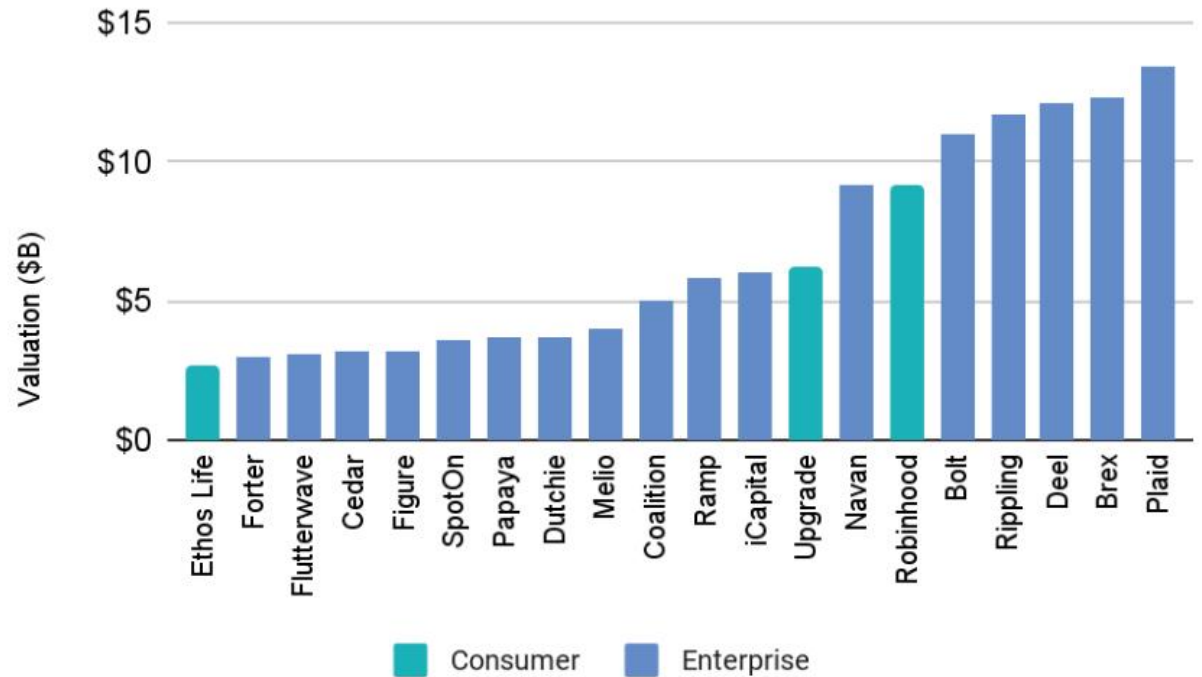
Fintech

2023's 20 highest valued unicorns

“Companies with embedded fintech” grew to be a leading category (16%).

While some fintechs have run into recent trouble, we see much opportunity ahead. Unicorns are still tiny vs. incumbents like Visa and Mastercard (\$531B, \$402B) and JPMC and BoF (\$492B, \$260B respectively).

Read more about opportunities in fintech [here](#).

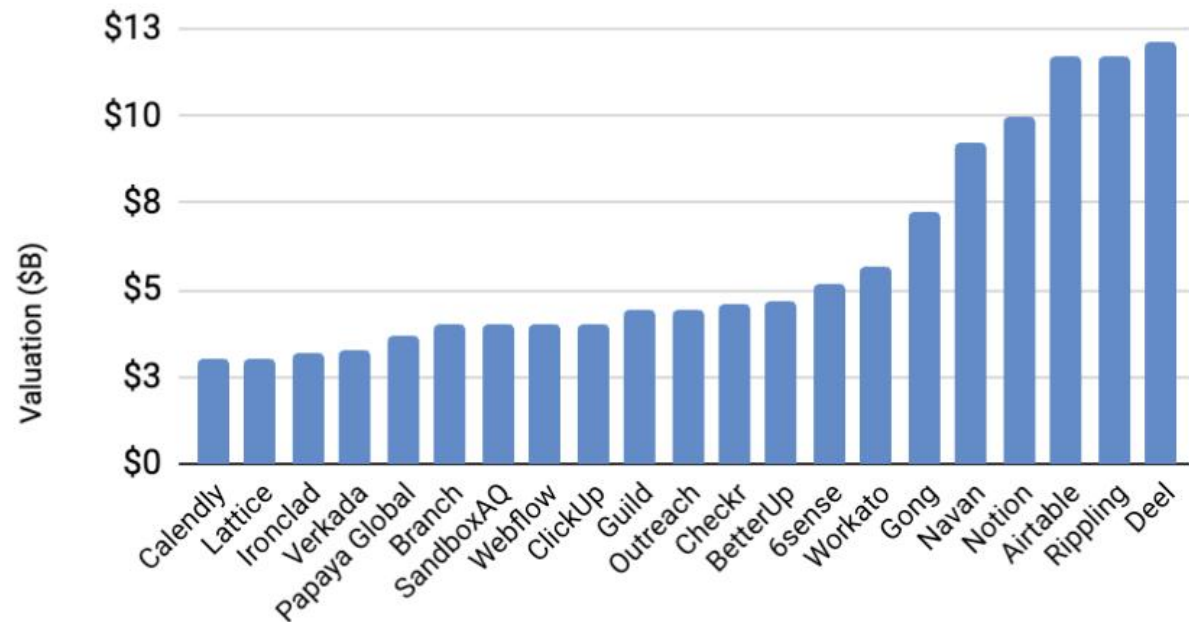


Enterprise SaaS & services

2023's 20 highest valued unicorns

Enterprise software is also a major category (16%), defined as software that can be used by various businesses and functions (e.g. [Airtable](#), [Guild](#)), as well as “functional SaaS” – designed for a business function across industries (e.g., [Rippling](#) for HR; [Gong](#) for sales, [Ironclad](#) for legal).

A number of these companies are AI-centric (e.g., Gong) – we expect the majority of the 2033 enterprise unicorns will be as well.



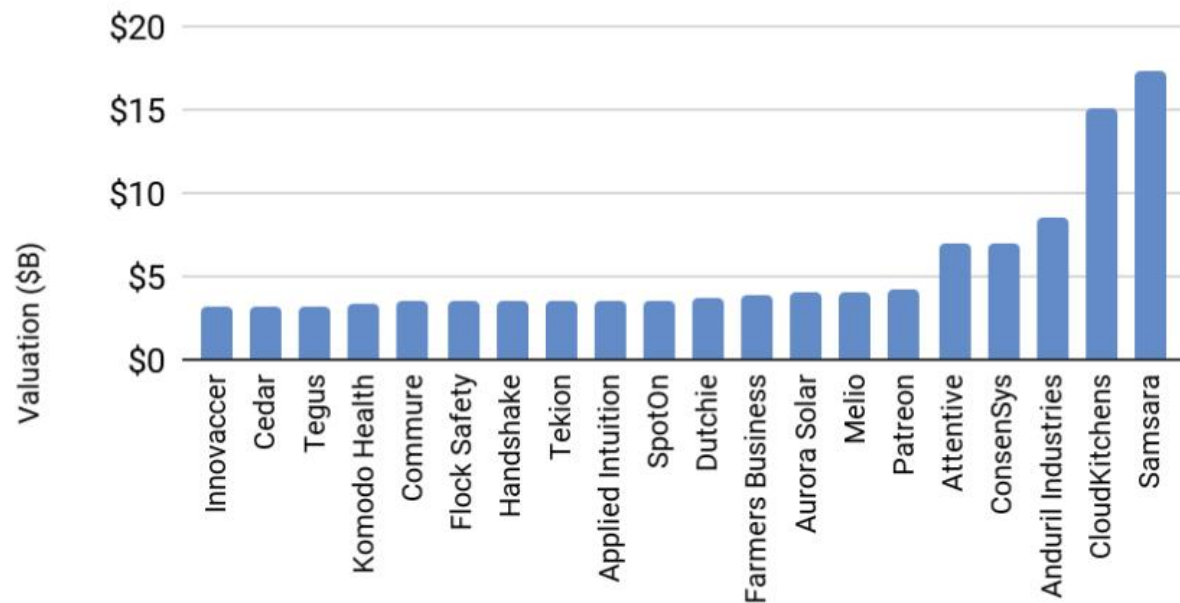
Vertical SaaS

2023's 20 highest valued unicorns

Vertical SaaS (software tailored to workflow in a specific industry) emerged as a major group (13%).

Surprising 'niches' have bred unicorns - i.e. parking ([Metropolis](#)) and cannabis ([Dutchie](#)).

Our 2013 herd had only [Palantir](#) and [Climate Corp](#) (we're excited about AI-driven vertical SaaS, read more [here](#)).

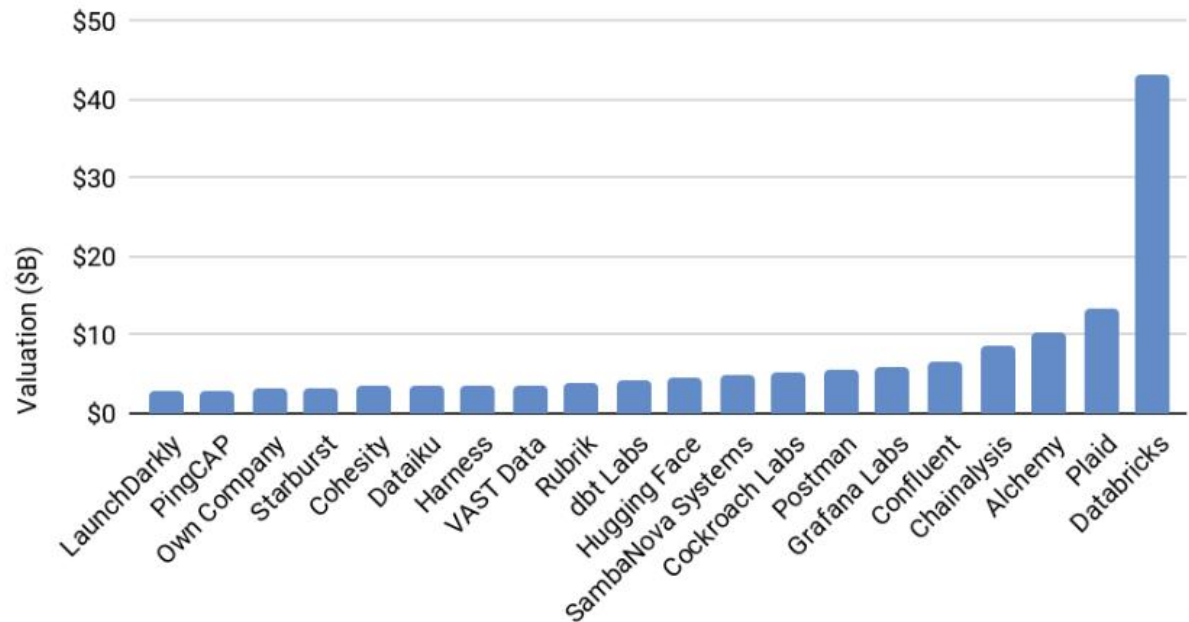


Enterprise infrastructure

2023's 20 highest valued unicorns

New infrastructure was required to support the growth of cloud software, and enterprise spend on infra has continued to grow despite tighter budgets.

AI-enabled applications will drive more value in this category - with early indications like Databricks' [\\$43B round](#) last year.



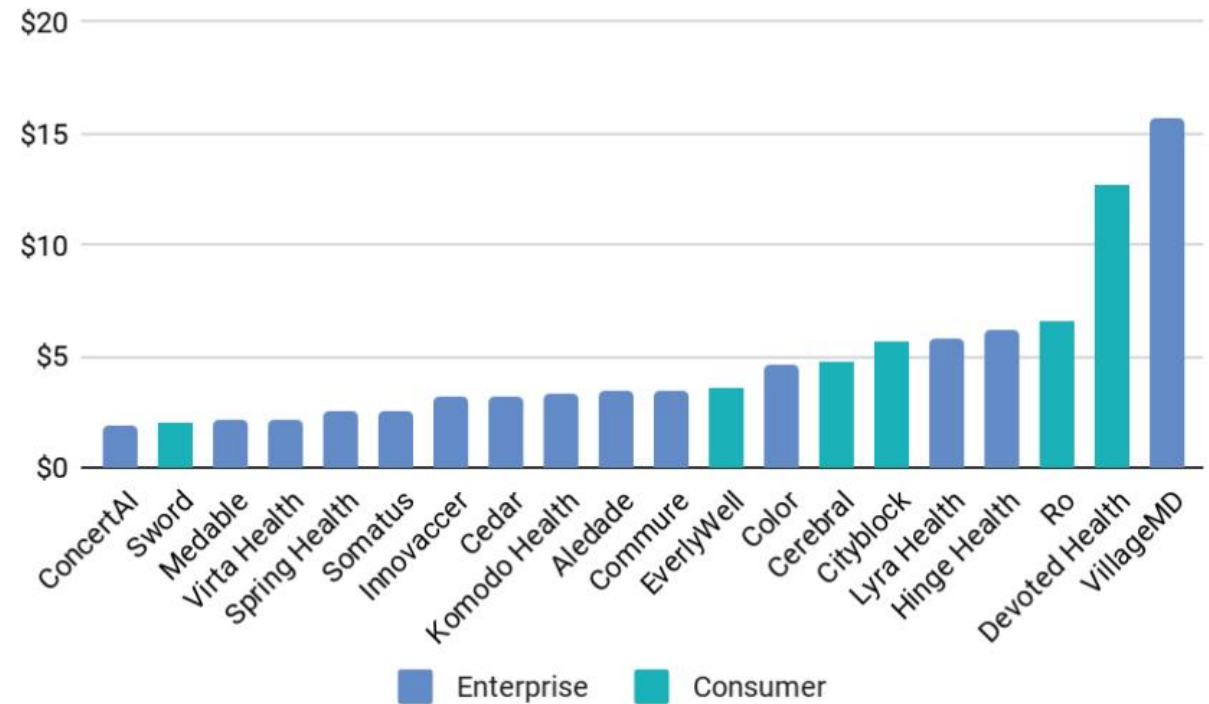
Healthcare

2023's 20 highest valued unicorns

There were no healthcare companies in our 2013 herd. Now there are 55 (10%), ranging from data & analytics, to mental health telemedicine, to new payers.

Investment was likely spurred by regulatory changes, COVID-era effects, and low interest rates.

Healthcare funding is expected to decline due to the sector's fragmentation, resembling "4,000 \$1B markets" despite the "\$4T headline TAM."



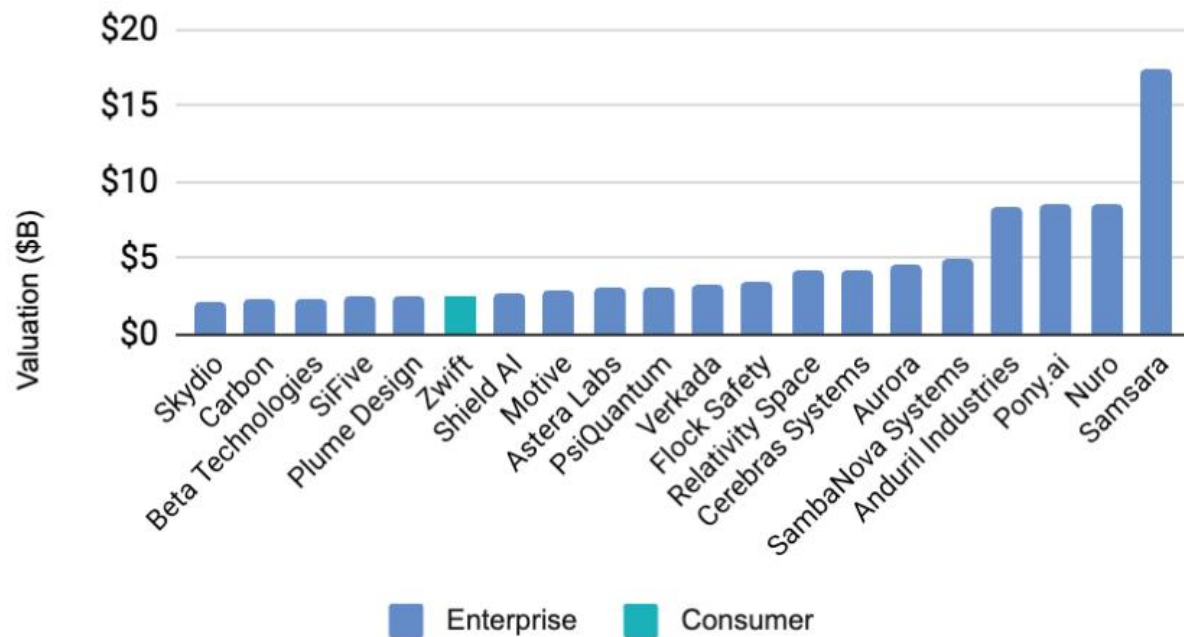
Hardware

2023's 20 highest valued unicorns

Historically, VCs shied away from hardware due to lower margins and high capital requirements.

ZIRP + the promise of IP and large unaddressed markets empowered more hardware companies to raise funding.

Hardware + software (e.g., Samsara) can create a barrier to entry vs. a pure software competitor.

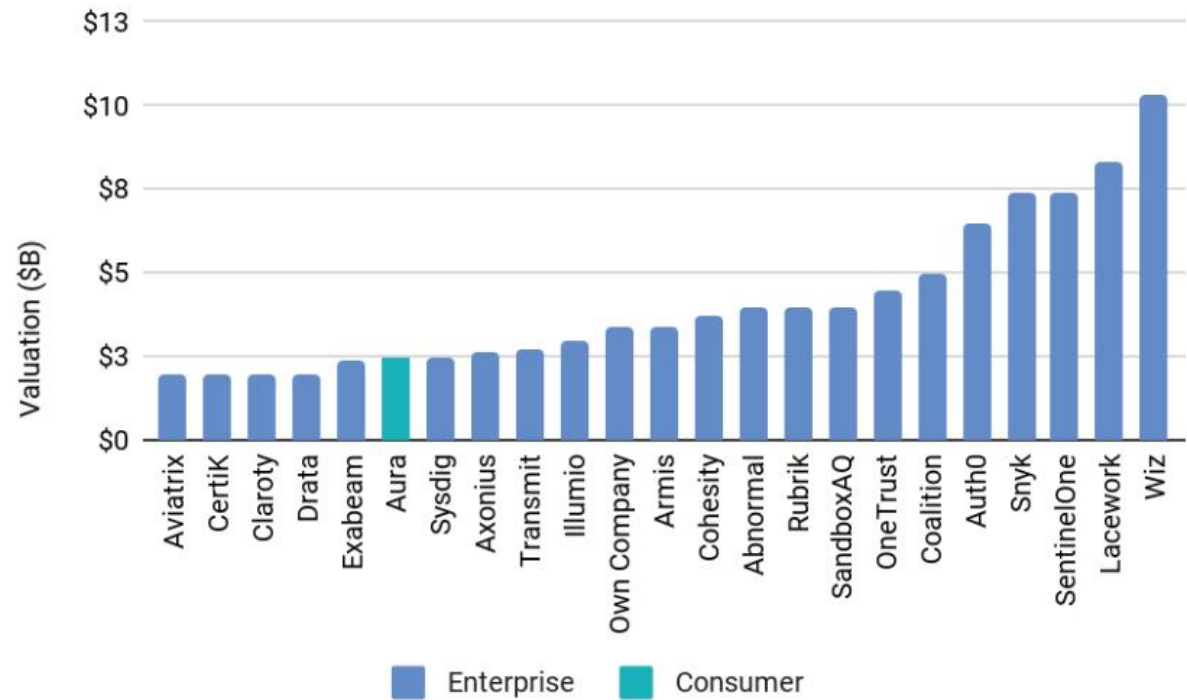


Security

2023's 20 highest valued unicorns

An increasingly connected yet insecure globe has driven some of the fastest growing unicorns in cloud security (and decacorns) and with real metrics.

Category leader Wiz took just [18 months to get to \\$100M ARR](#).

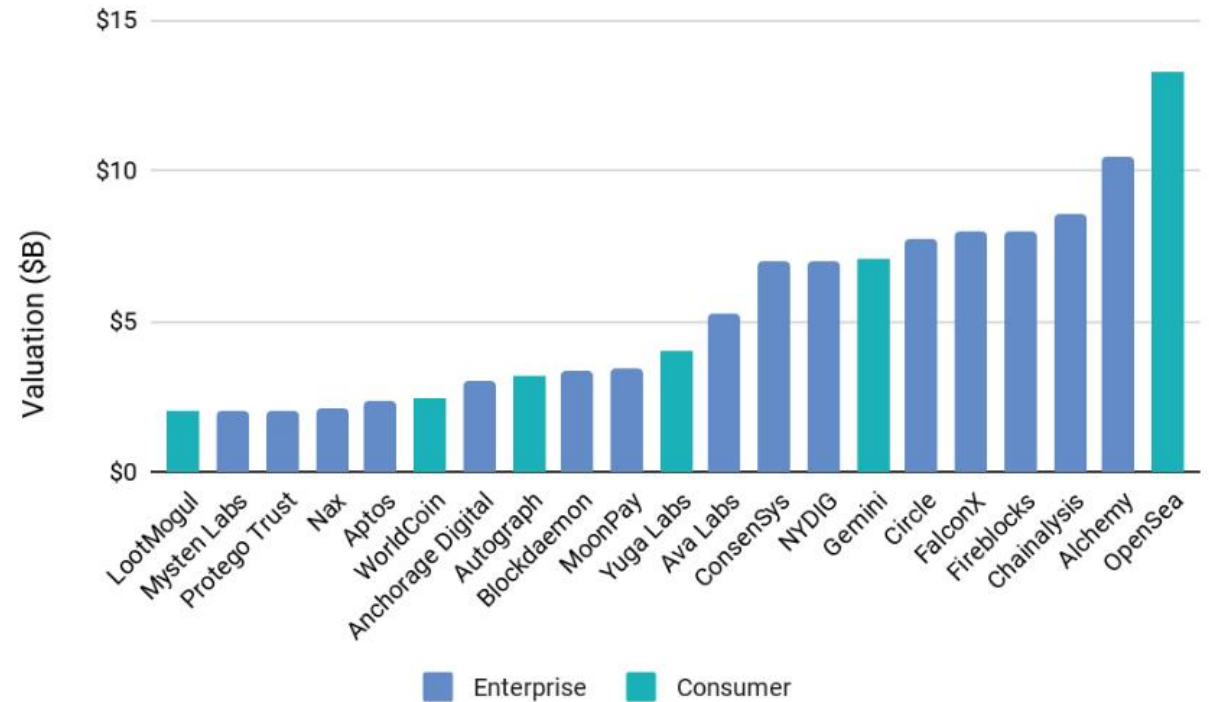


Crypto & web3

2023's 20 highest valued unicorns

Many crypto & web3 unicorns were crowned in 2021, followed by a precipitous drop in transaction volume amidst rising interest rates in 2022-23.

Some of these companies will struggle to hold their existing valuations - 70% have not publicly raised since 2022.



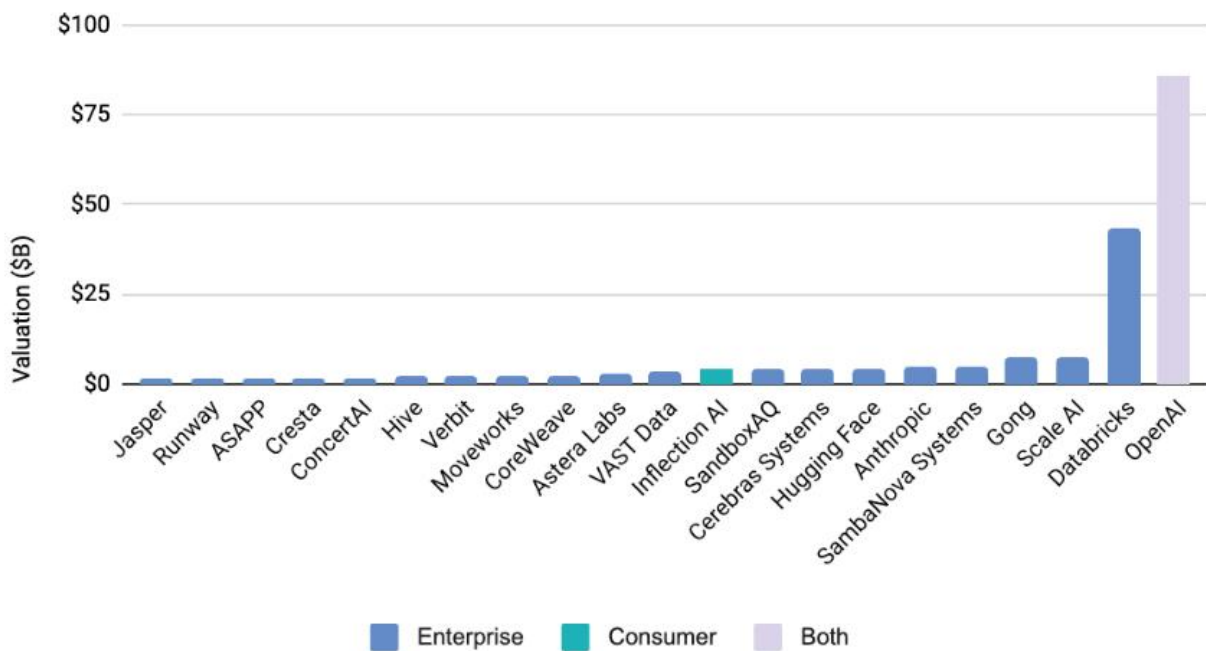
AI / ML-native apps & infrastructure

2023's 20 highest valued unicorns

The AI/ML-native companies in our dataset are just 6 years old on average, but already make up 7% of the list.

Note: We categorize "AI / ML" to AI-specific infrastructure and generative AI-native companies. We excluded computer vision and autonomous driving companies.

Read more about our interest in [Gen-AI Infrastructure](#), and [AI-native vertical software](#) in these posts.

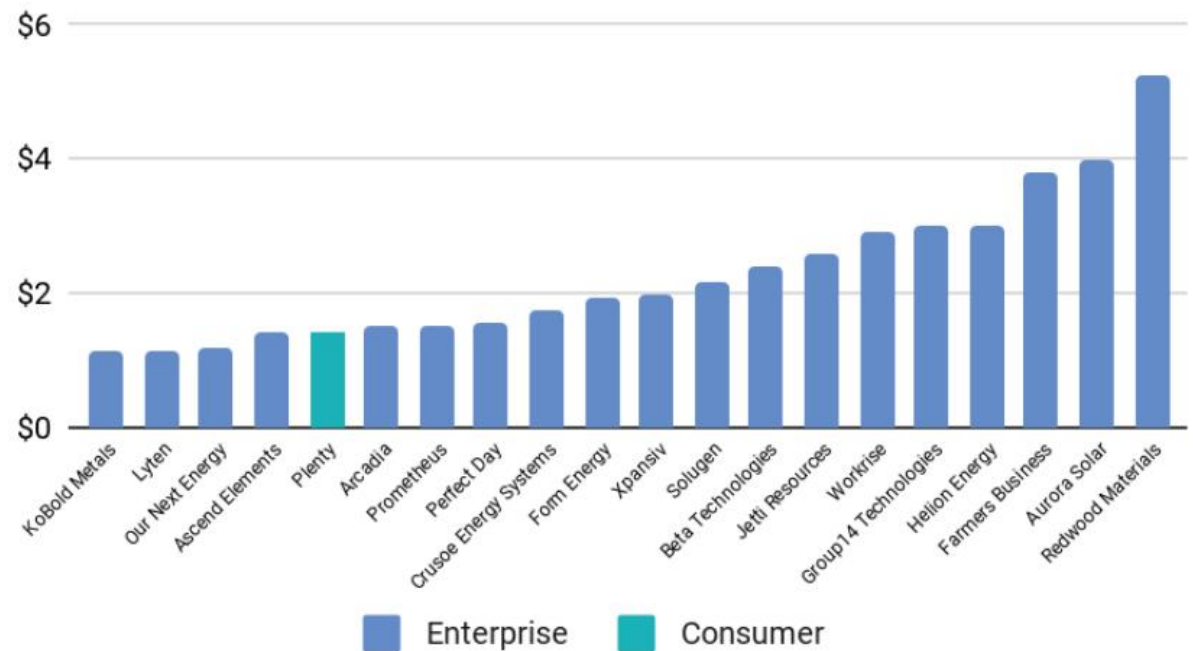


Climate, energy & agriculture

2023's 20 highest valued unicorns

There was only one climate unicorn in 2013 (The Climate Corporation) – now it's 6% of the list, ranging from high-margin software to capital-intensive energy and mobility companies.

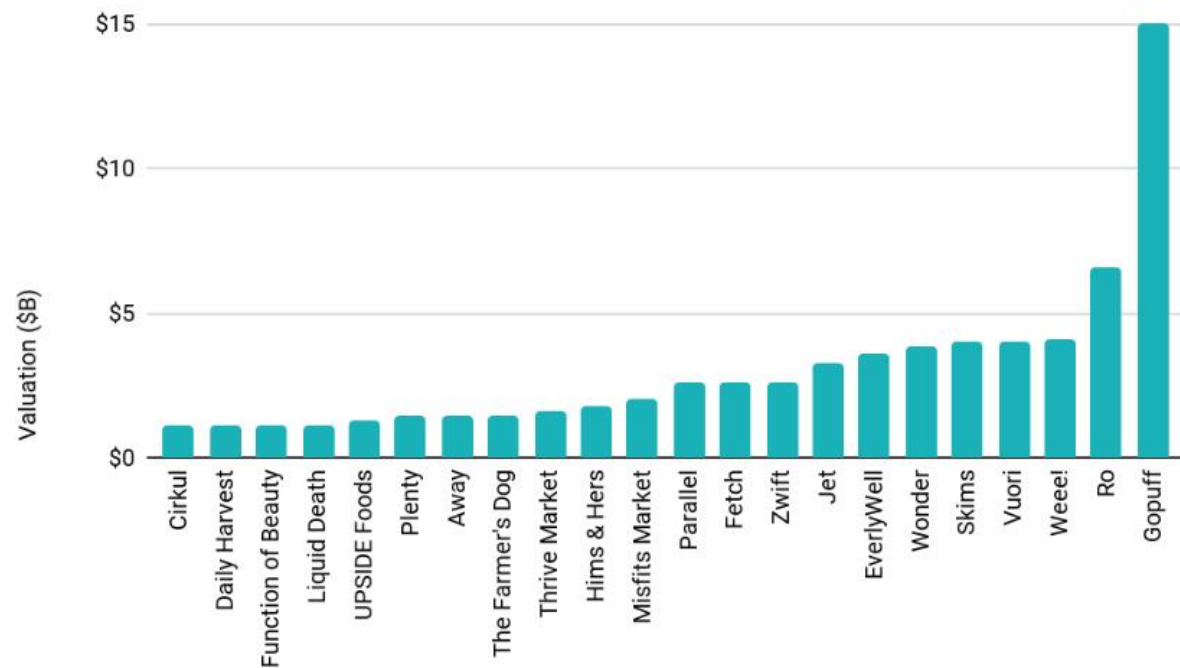
These unicorns were supported by record funding in 2021's zero-interest rate environment, but funding is now [down 40% YoY](#).



B2C E-commerce & retail

2023's 20 highest valued unicorns

COVID created a surge of online shopping, with e-commerce sales growing [43%](#) in 2020, and a number of “picks and shovels” vertical SaaS companies supporting the next wave of commerce (e.g., [Attentive](#) for messaging, [Route](#) for tracking and retention).

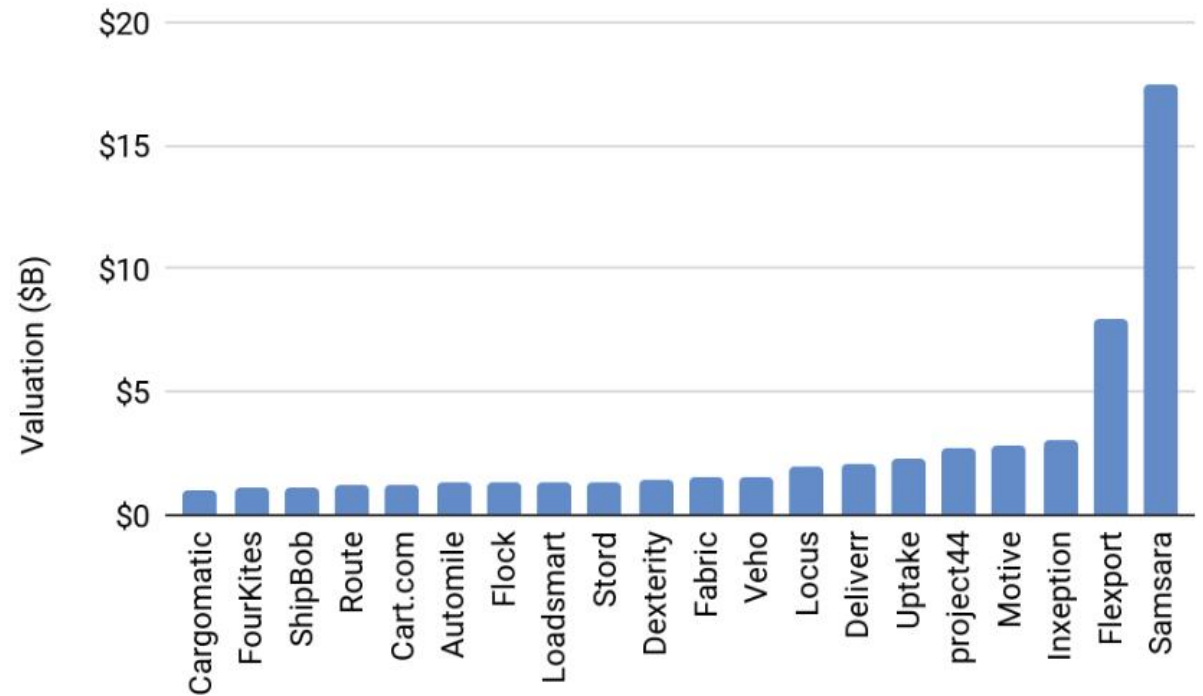


Logistics & supply chain

2023's 20 highest valued unicorns

Commerce surged 43% during Covid, driving higher revenue and increased investment in data, robotics, IoT automation, and operational software.

Post-Covid, consumer spending shifted amid rising rates, fuel prices, and tight labor conditions. Supply chain and logistics unicorns faced challenges, with abrupt shutdowns and layoffs.

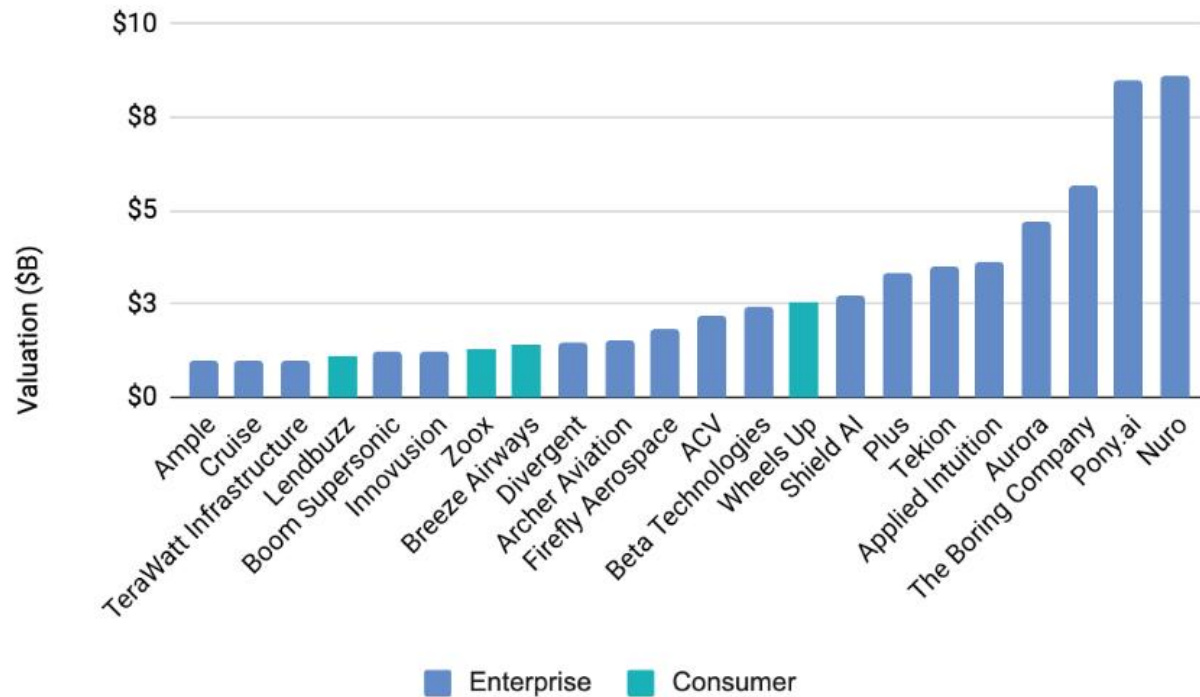


Mobility

2023's 20 highest valued unicorns

Mobility unicorns range from autonomous vehicles, to advanced air mobility, to software and financing solutions.

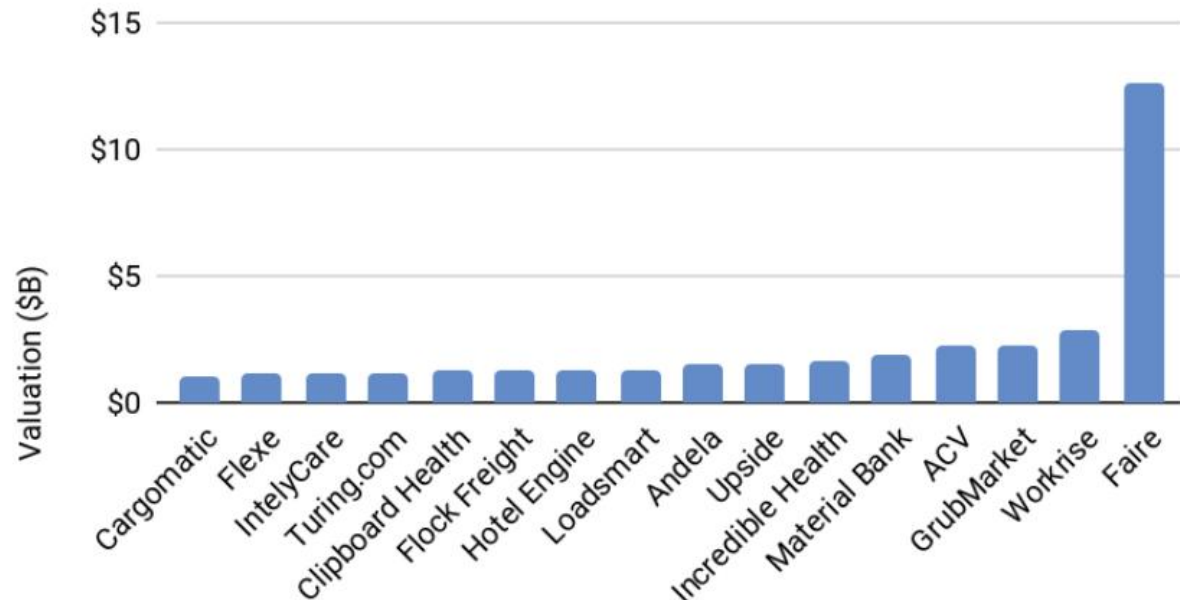
Advancements in AI and LIDAR, as well as a focus on sustainability and low interest rates, have been major tailwinds.



B2B marketplace

2023's unicorns

There were no enterprise marketplaces on the 2013 list. Now, marketplaces support more efficient workflows - from procurement to hiring - across large and niche industries alike.

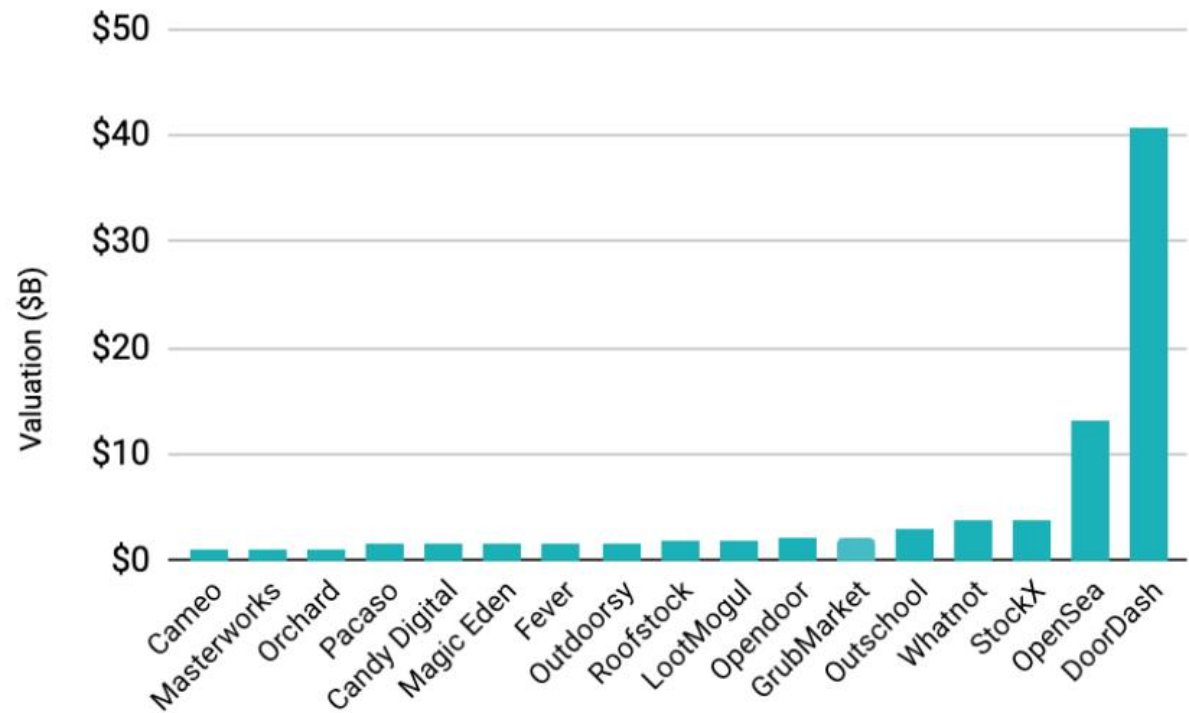


Consumer marketplace

2023's unicorns

Consumer marketplaces were “big winners” in 2013 (e.g., Airbnb, Uber), and again are at the top of the list, with DoorDash as the most valuable exited company.

Network effects are powerful - 2013's consumer marketplaces have grown 12x on average in the past decade, which could bode well for some companies on 2023's list.

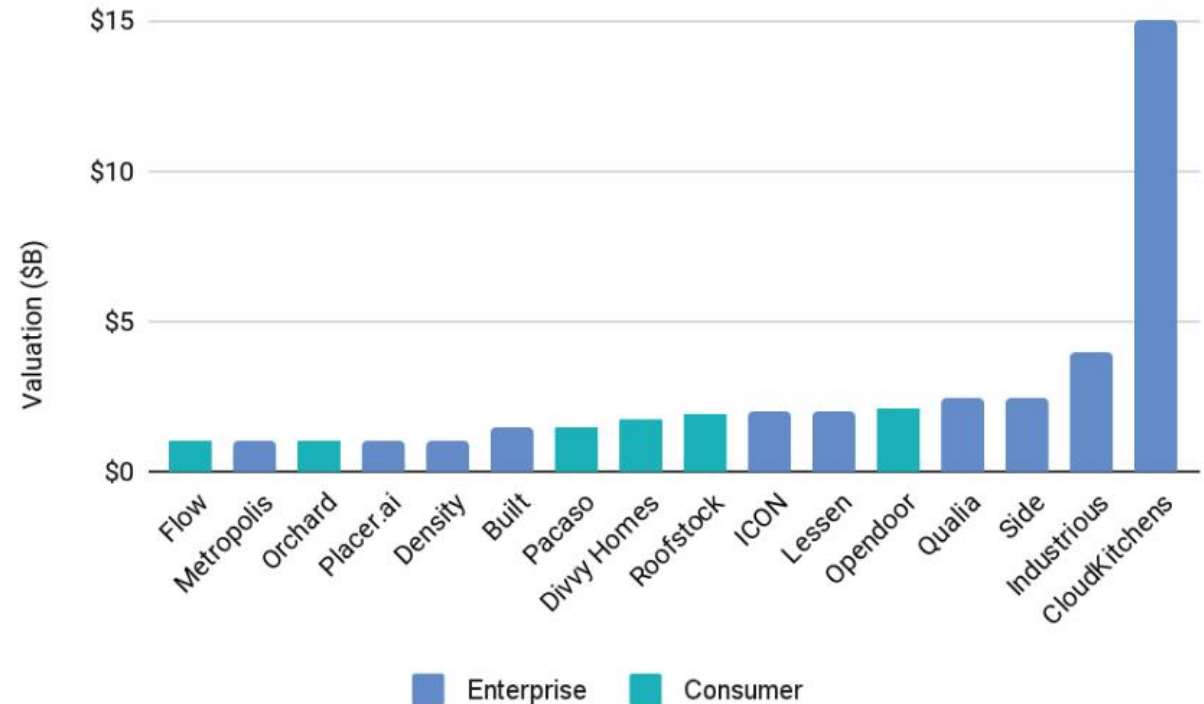


Real estate & property

2023's unicorns

Low rates and consumer mobility during/post Covid created the ultimate seller's market, ushering in a wave of real estate related startups.

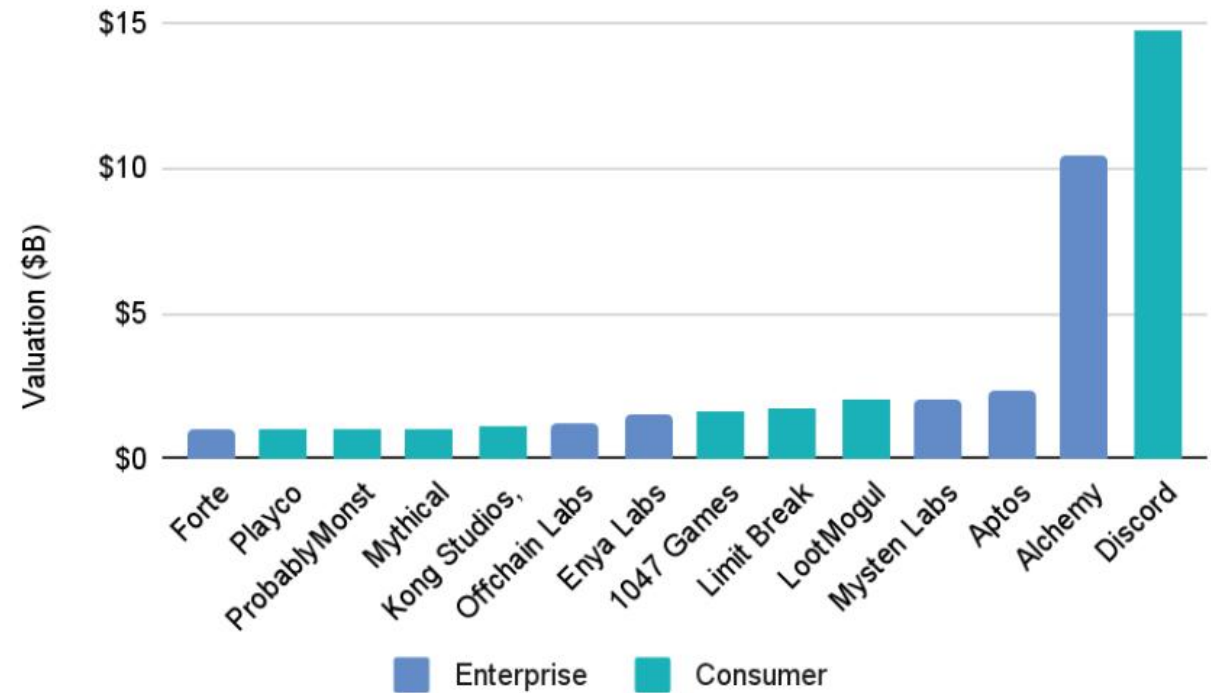
Many of these companies are sensitive to macroeconomic factors; as rates rose and consumer purses and housing supply tightened, so has the growth in this market.



Gaming

2023's unicorns

Zynga was the only gaming company in 2013. Now, there are 14, including Discord (the 8th most valuable company on our list) and a number of solutions tailored to web3 gaming.

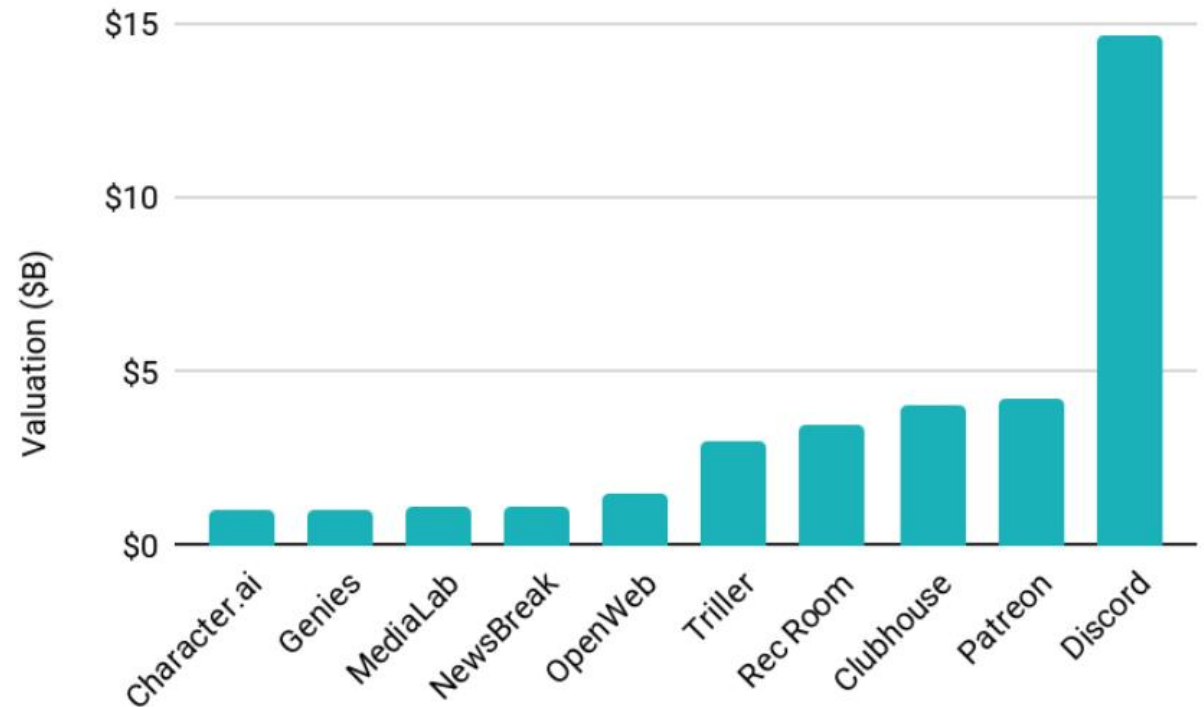


Consumer social & entertainment

2023's unicorns

Social was the megatrend of the 2010s, with Facebook representing almost half of the 2013 list's value.

Most leading consumer internet companies are getting old, and don't offer modern trust, safety, authentication or personalization. Feels ripe for additional innovators to join this category.



Learning & development

2023's unicorns

Where and how we learn and work has changed a lot since 2013, creating a large category for companies offering software to support modern, distributed ways to learn and develop.

The number of unicorns in this category is few relative to market opportunity - feels like another category ripe for more and bigger unicorns.

