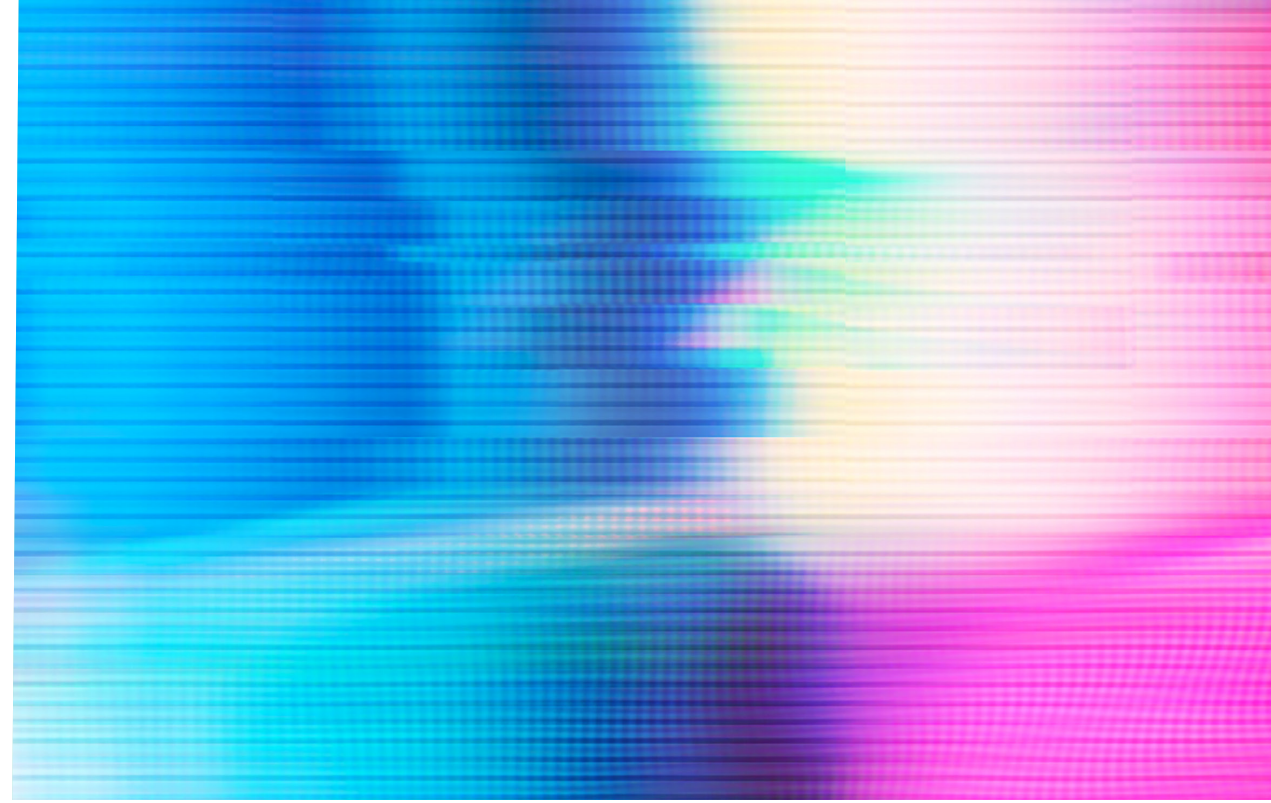


Two thousand
twenty two

State *of* Crypto

An overview report

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What is web3?

01.

The first era of the modern internet — roughly 1990-2005 — was about open protocols that were decentralized and community-governed. Most of the value accrued to the edges of the network: users and builders.

02.

The second era of the internet — roughly 2005-2020 — was about siloed, centralized services. Most of the value accrued to a handful of large tech companies.

03.

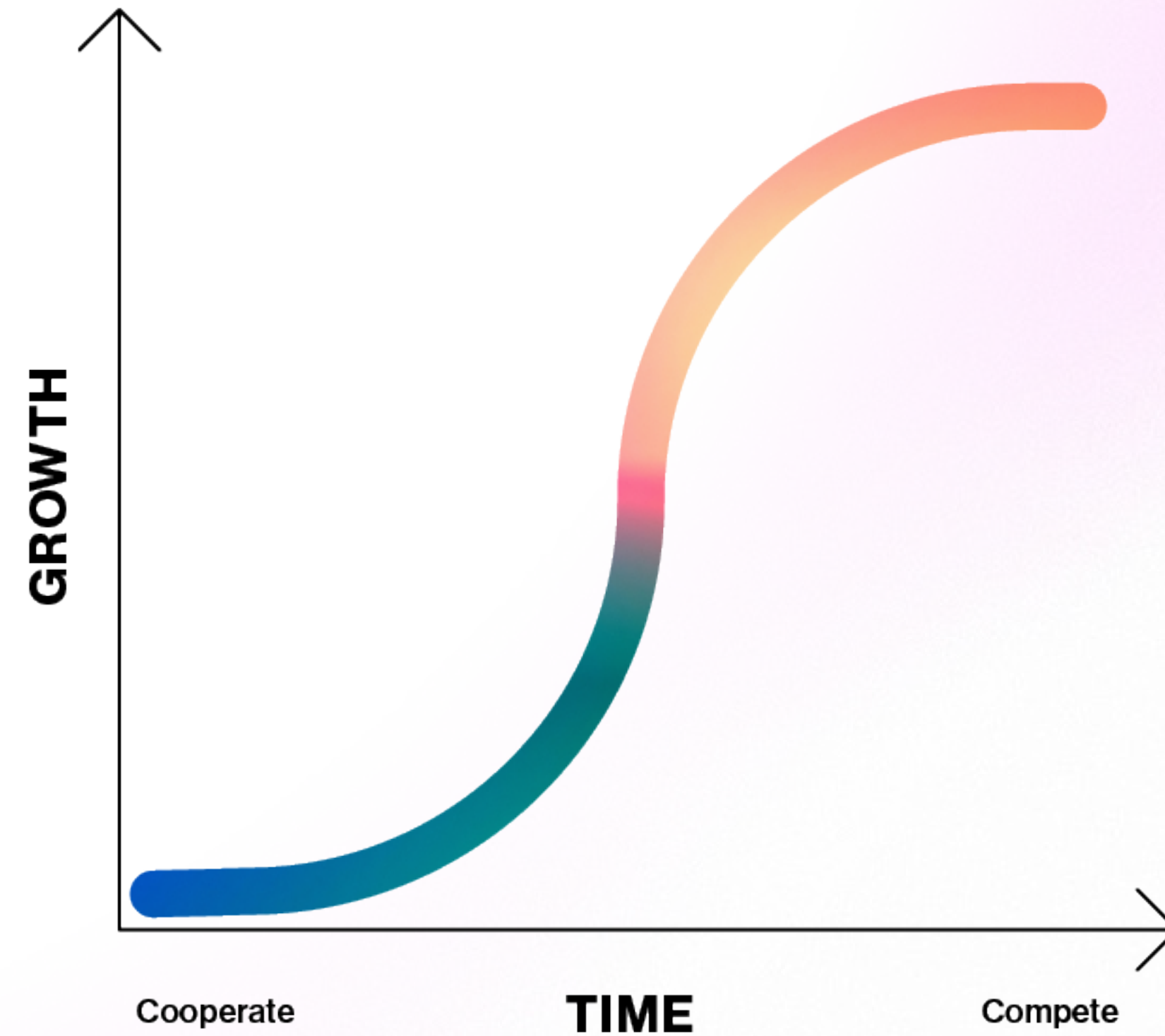
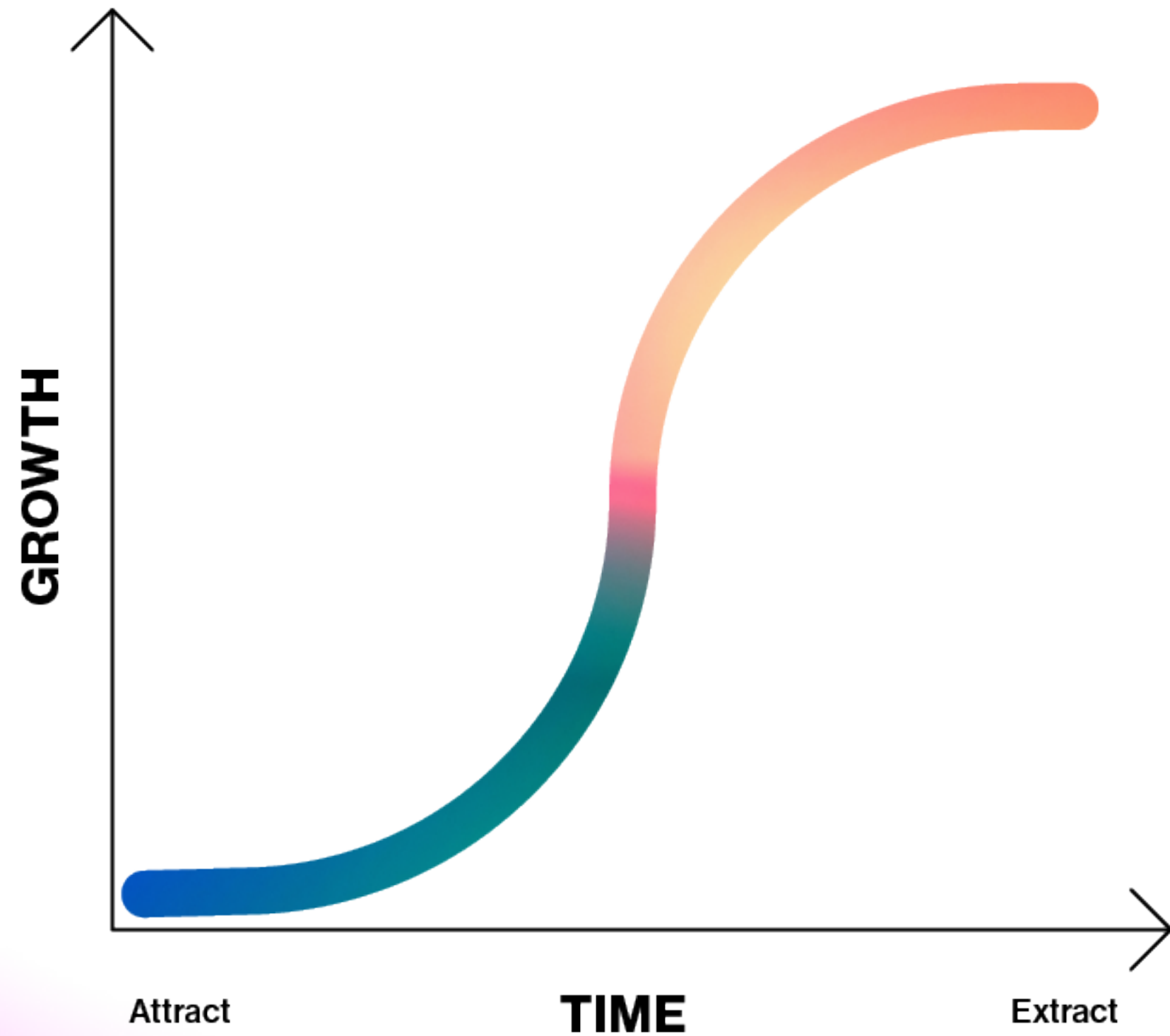
We are now beginning the third era of the internet — what many call web3 — which combines the decentralized, community-governed ethos of the first era with the advanced, modern functionality of the second era. This will unlock a new wave of creativity and entrepreneurship.

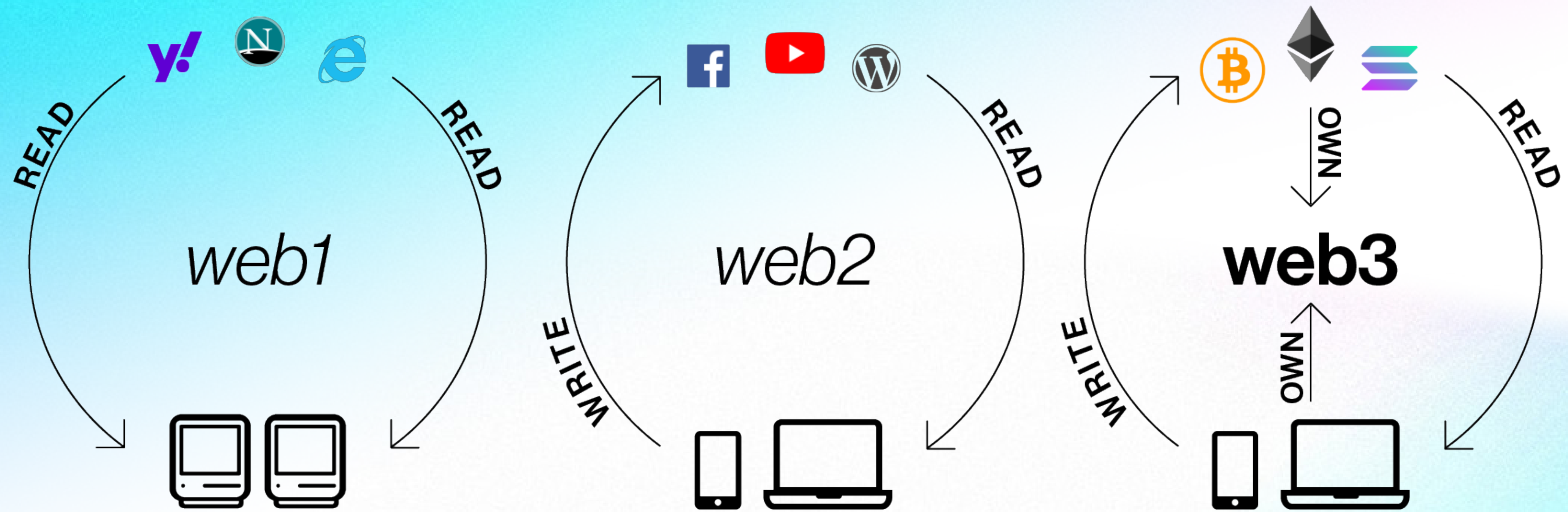
Why Web3 *Matters*



The internet as we know it *is* flawed

After friendly beginnings, web2 companies have become *more extractive and less cooperative*

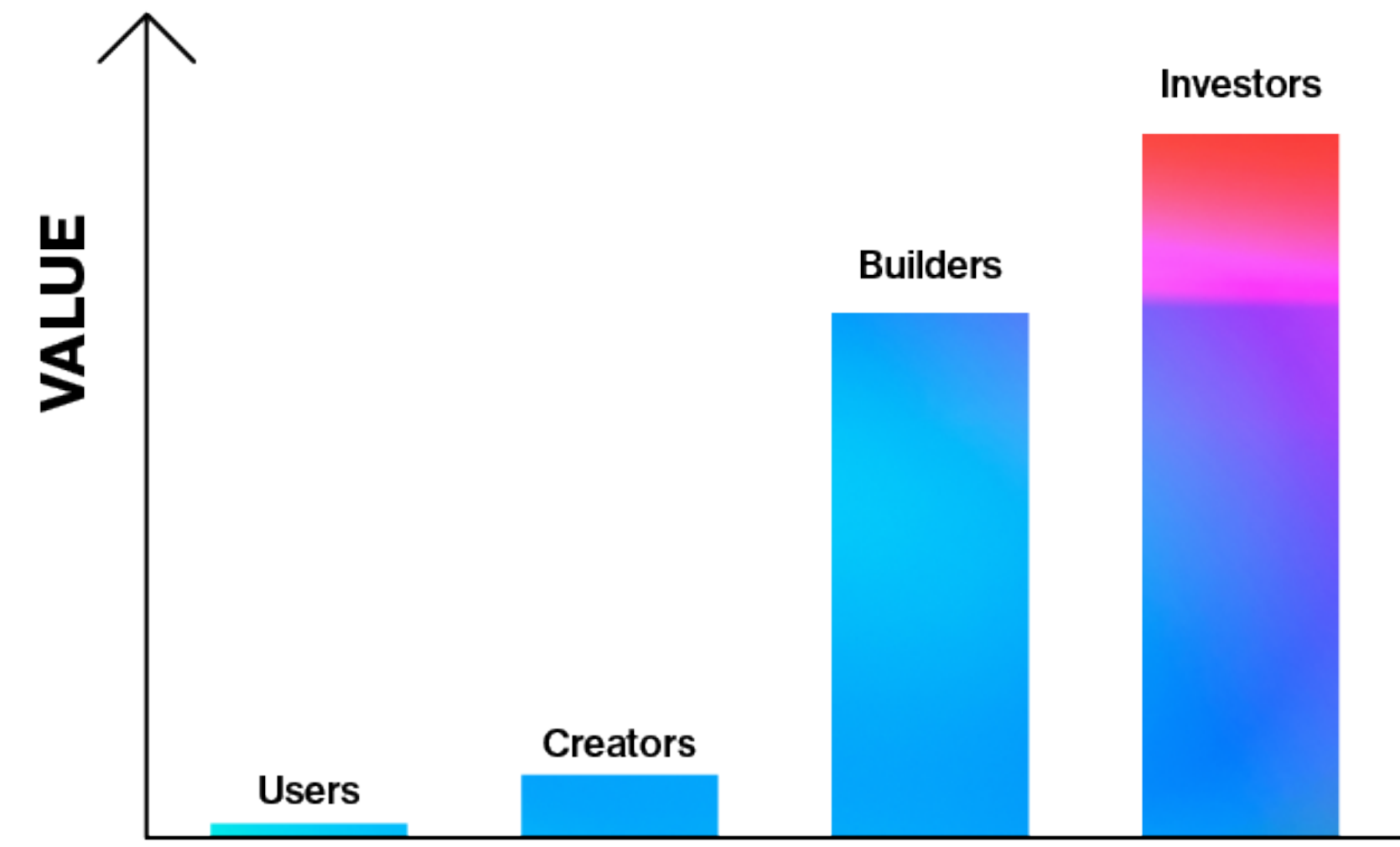




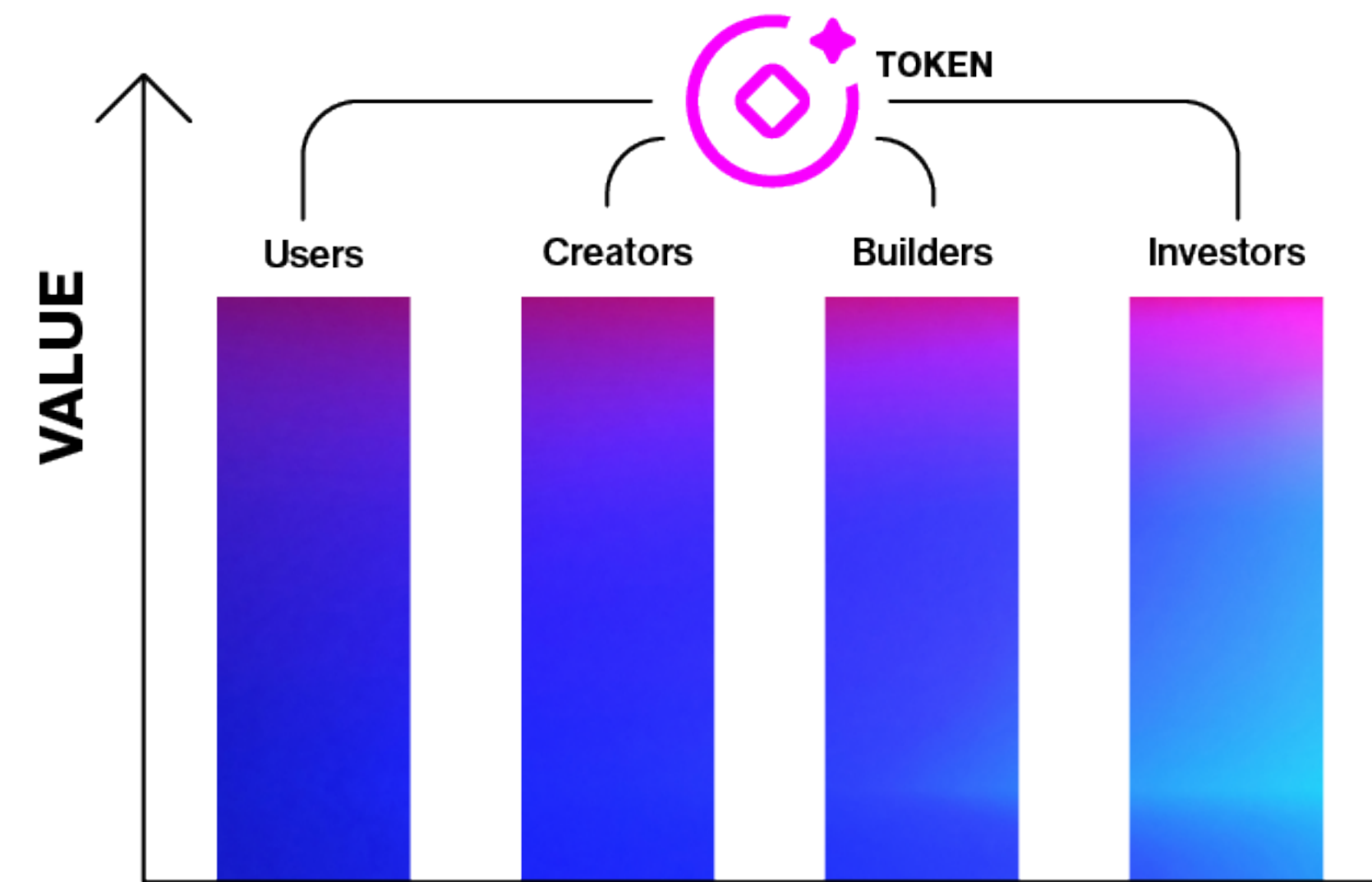
- **Web3 gives people property rights: the *ability to own* a piece of the internet**

Web3 aligns network participants to work together toward a common goal — *the growth of the network*

Charts for illustrative purposes only

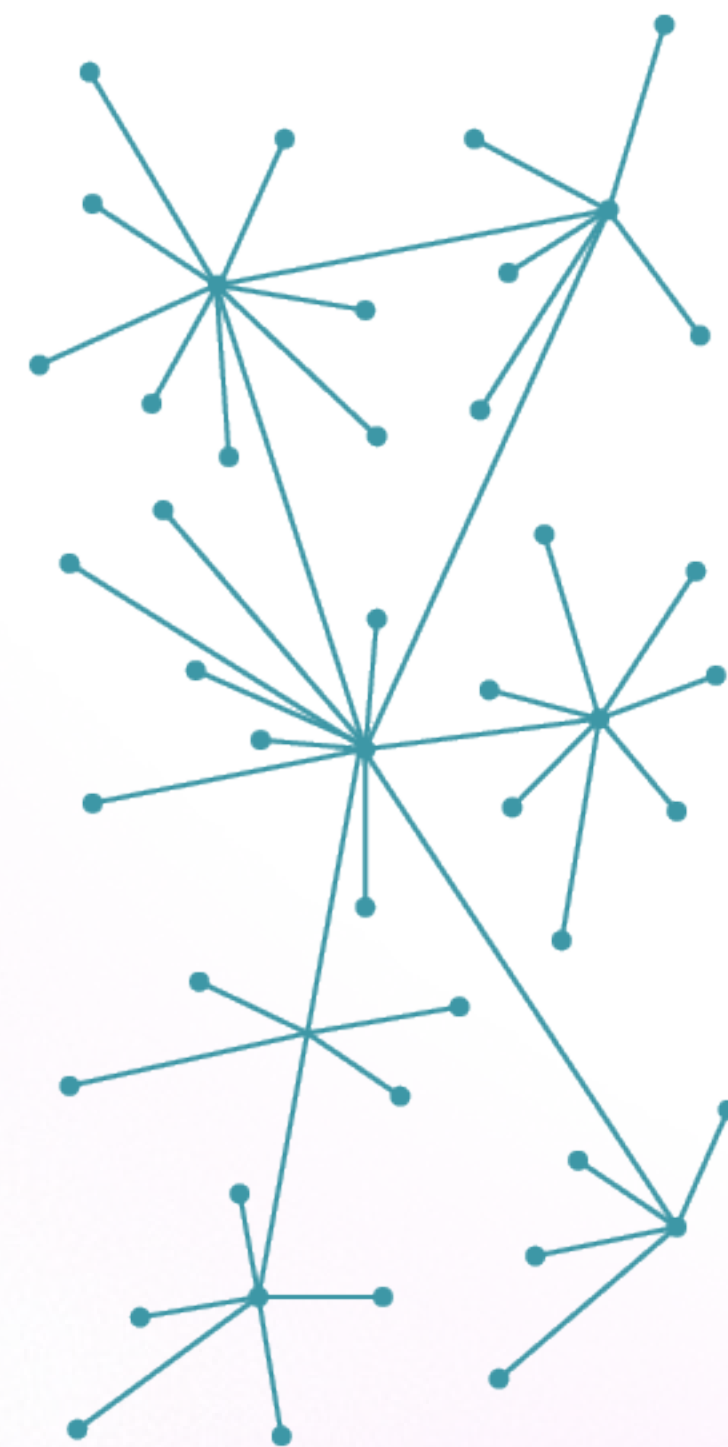
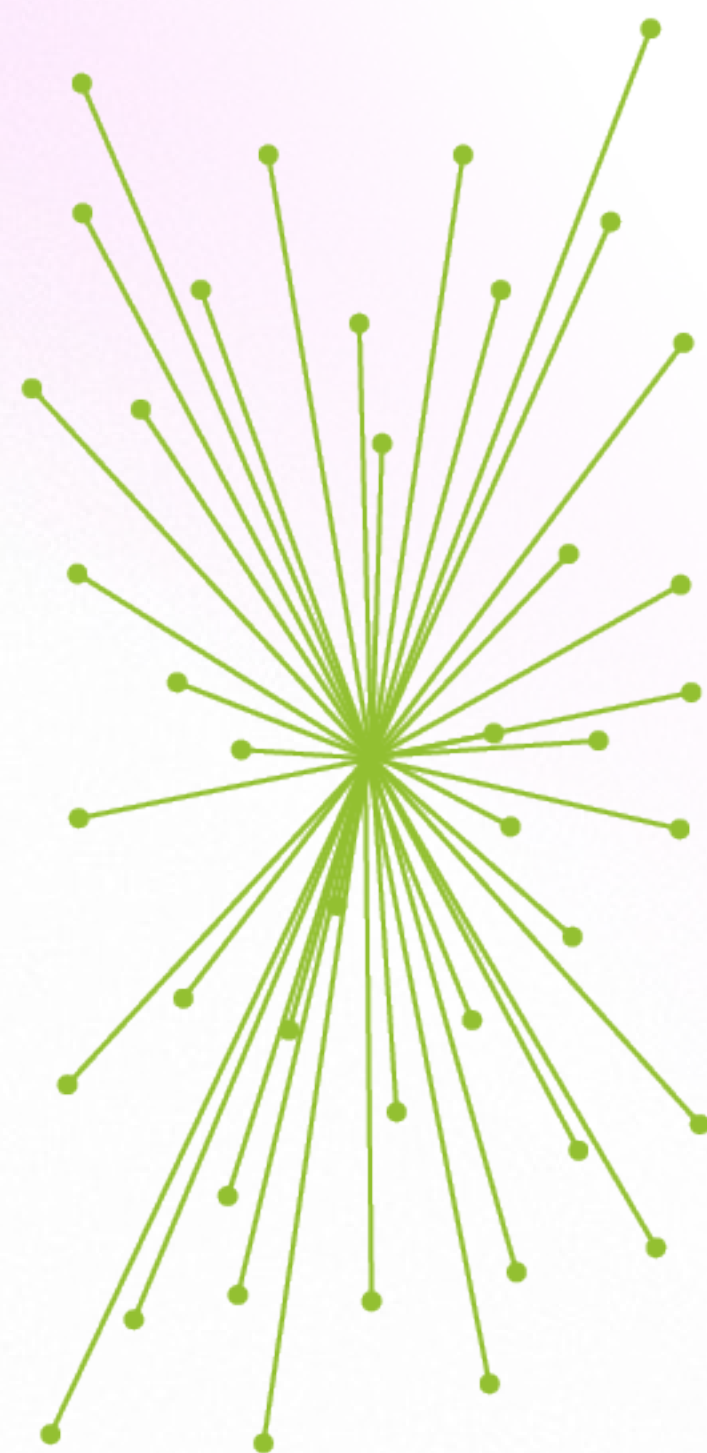


Web2's VALUE SHARE



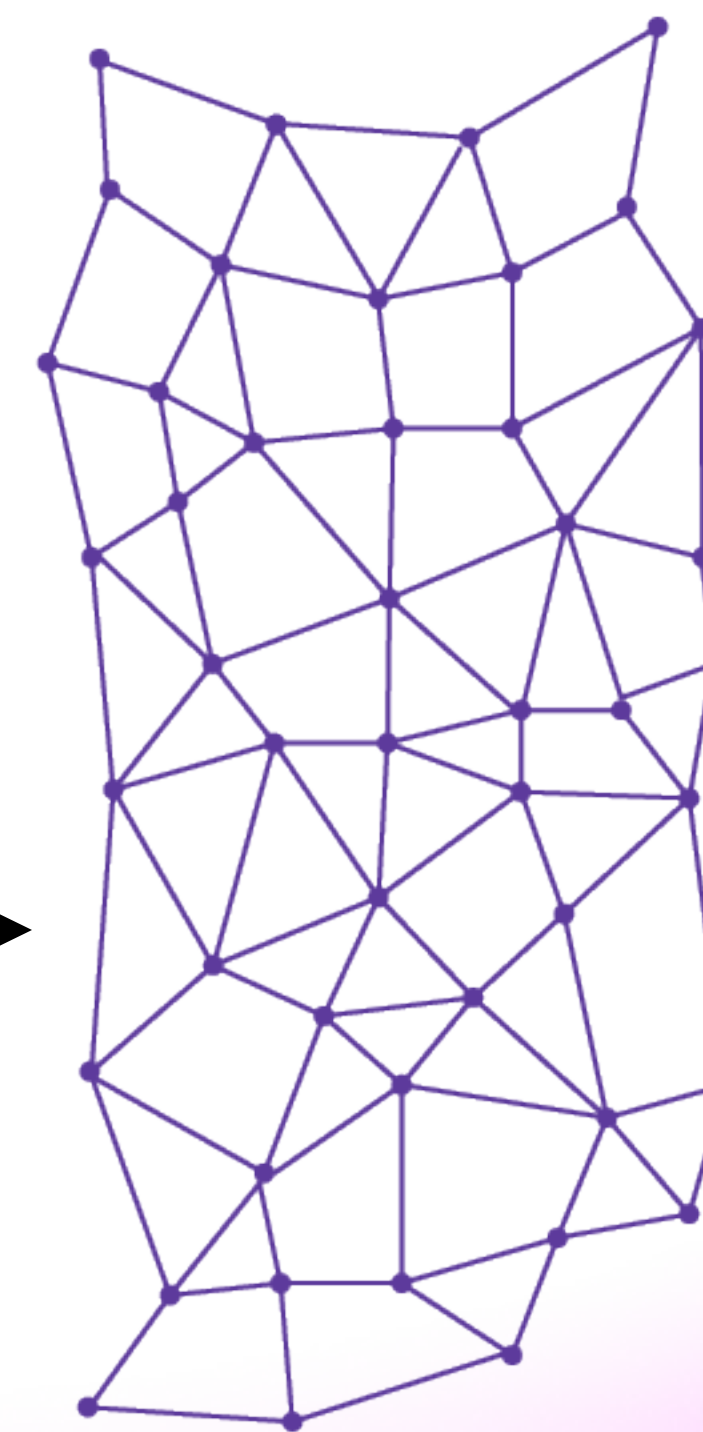
Web3's VALUE SHARE

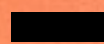
Web3 empowers a collective owned future over a corporate or government owned future



Single points of failure & control

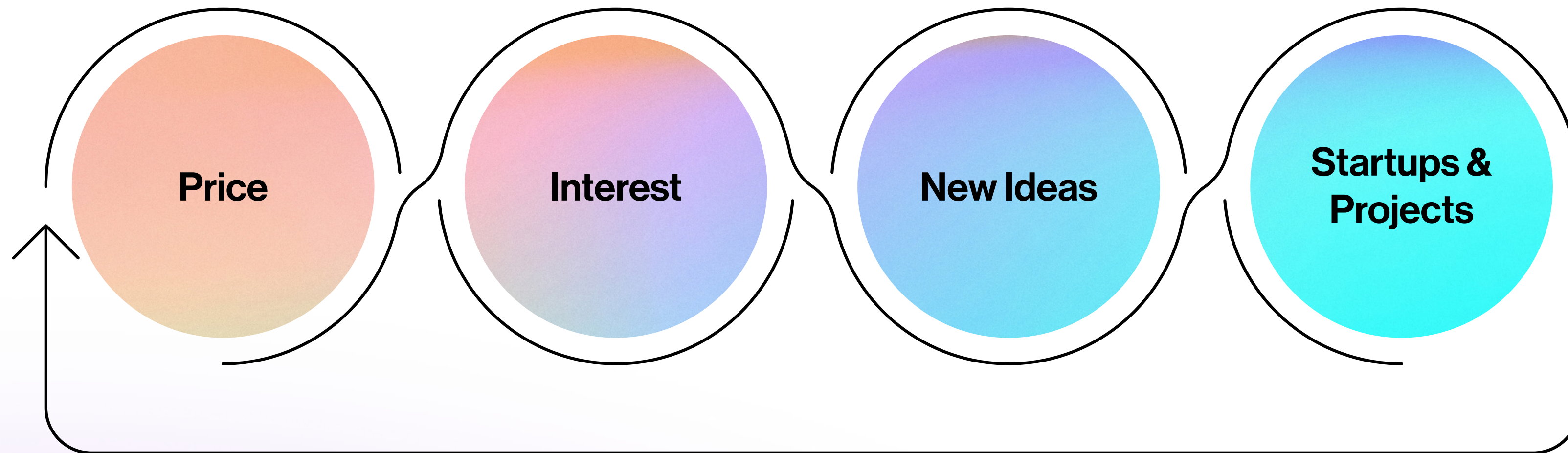
Resilient, equitable & participatory



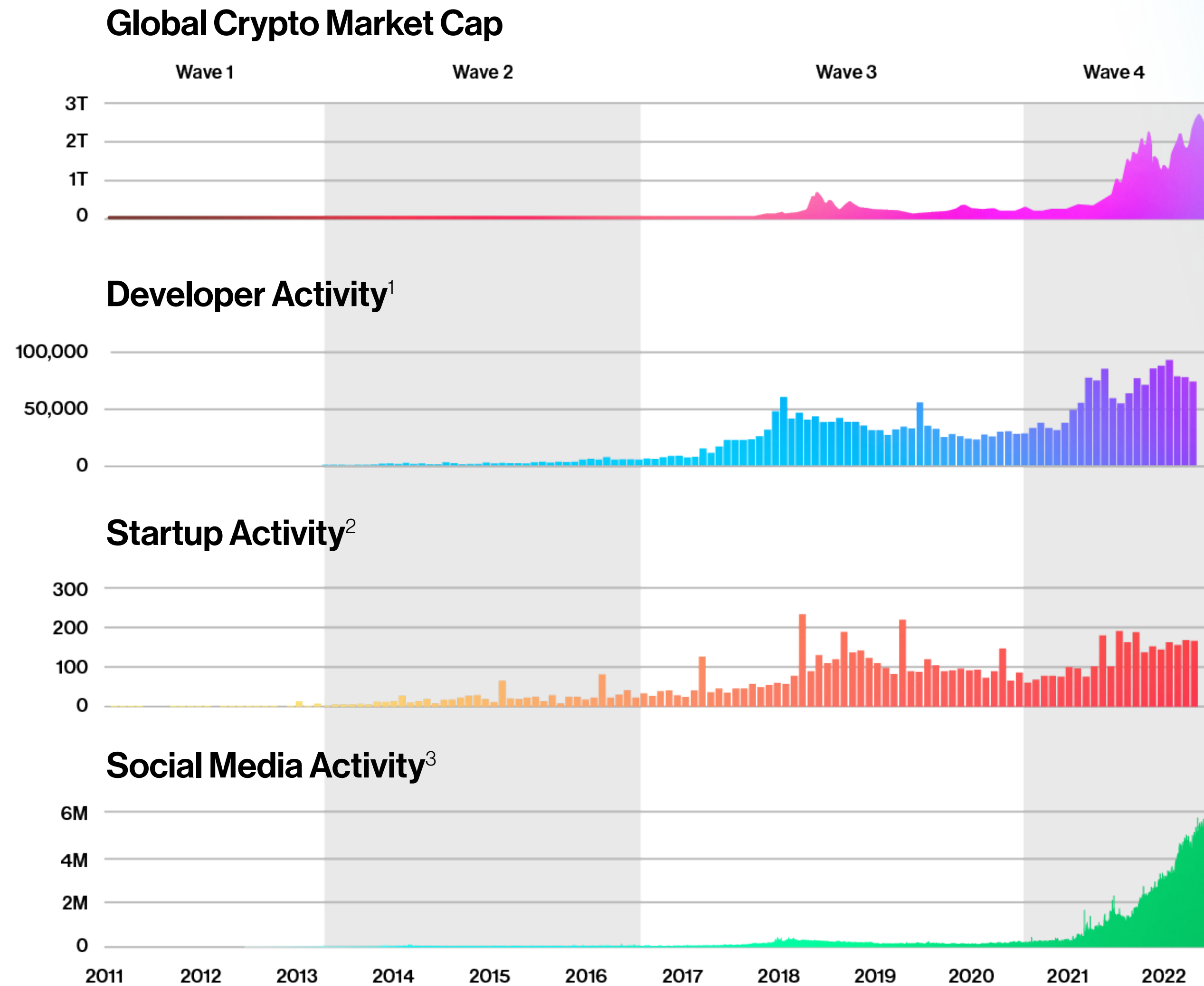


Cycles of Innovation

The crypto market *develops in cycles*



These cycles appear chaotic from the outside but *have an underlying order*



Source: CoinMarketCap, GitHub, Pitchbook, Twitter

Data is as of 5/12/2022

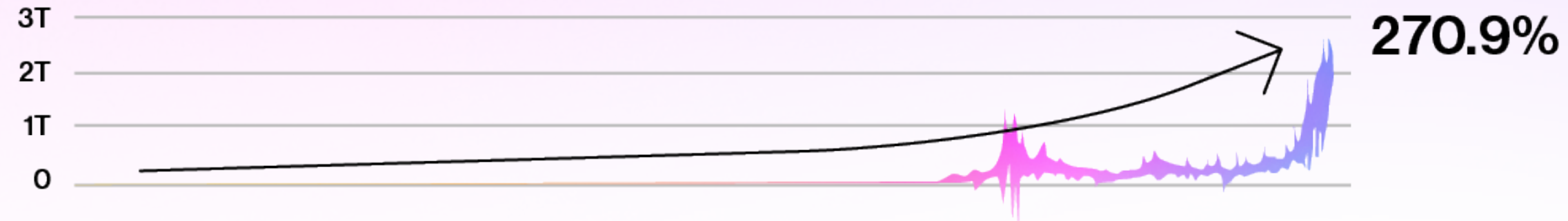
¹ Developer activity based on stars of crypto-related repositories on Github.

² Startup activity based on crypto-related initial funding rounds via Pitchbook

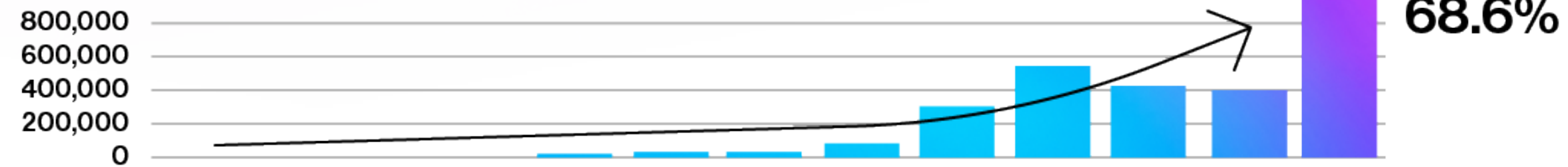
³ Social media activity based on crypto-related comments on Twitter

The result is
consistent long-term growth,
driven by
a feedback
loop between
interest
and innovation

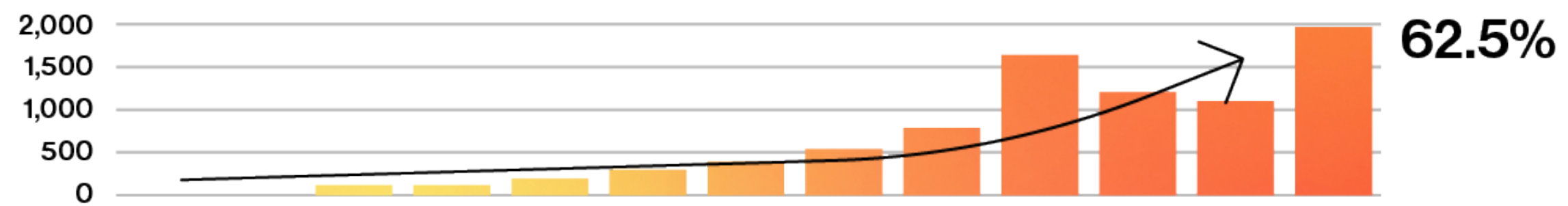
Global Crypto Market Cap



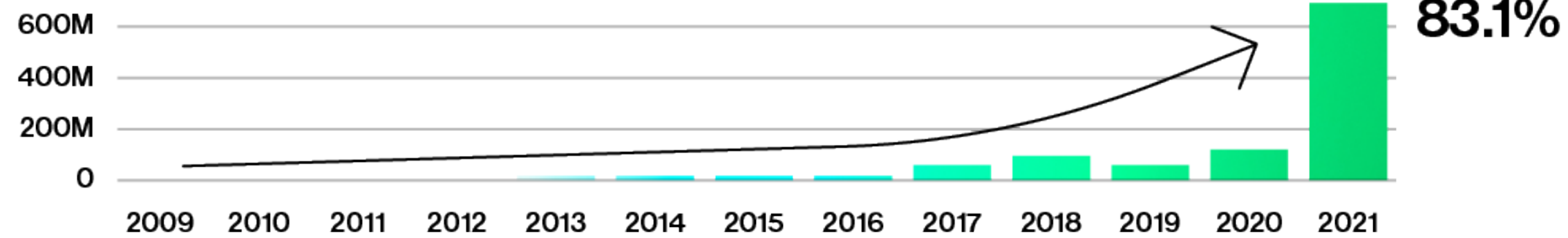
Developer Activity¹



Startup Activity²



Social Media Activity³



Compound annual growth rate

Source: CoinMarketCap, GitHub, Pitchbook, Twitter

Data is as of 12/31/2021

¹ Developer activity based on stars of crypto-related repositories on Github.

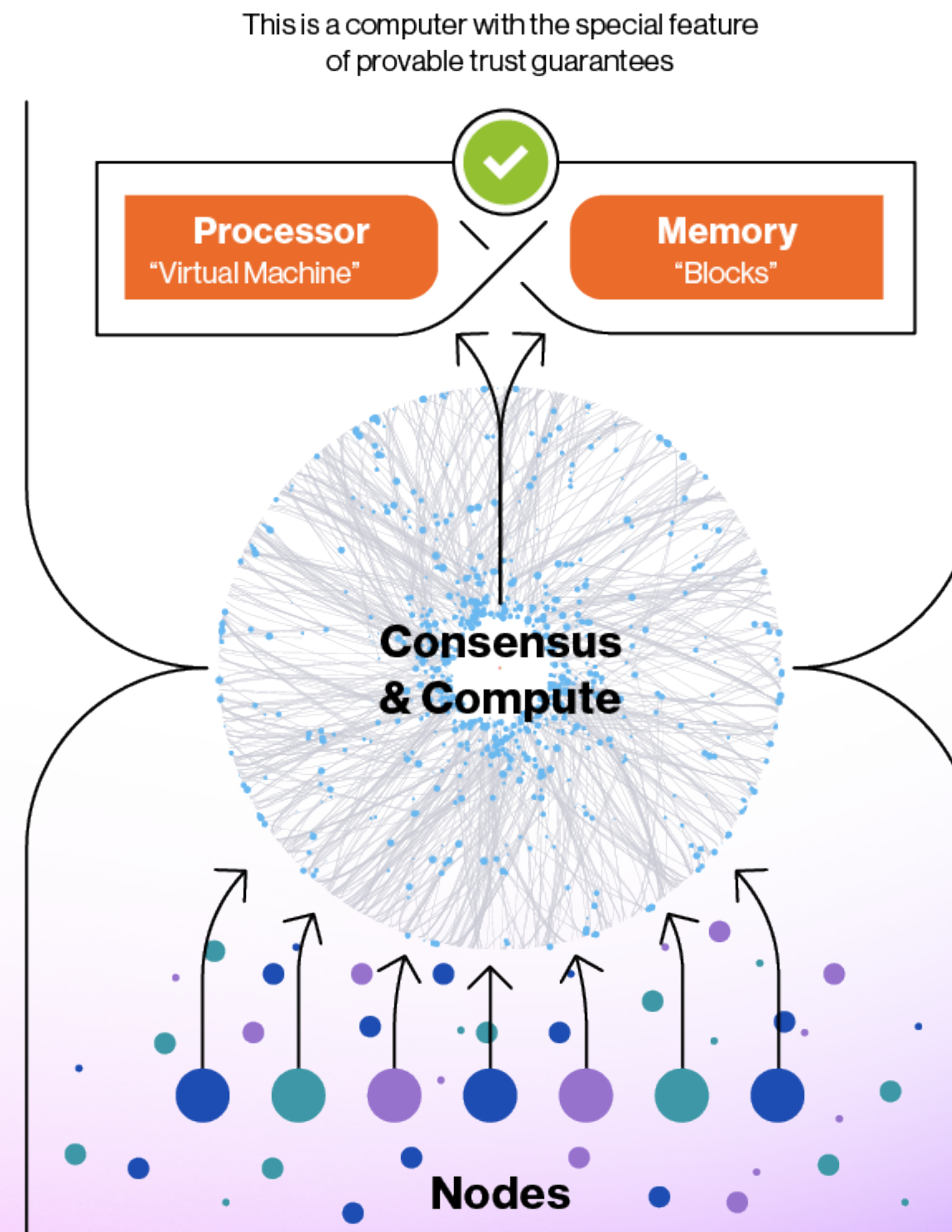
² Startup activity based on crypto-related initial funding rounds via Pitchbook

³ Social media activity based on crypto-related comments on Twitter

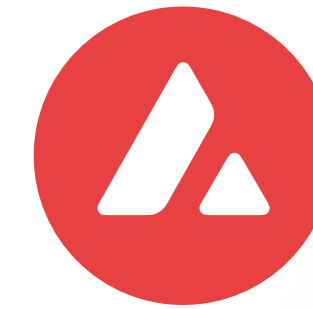
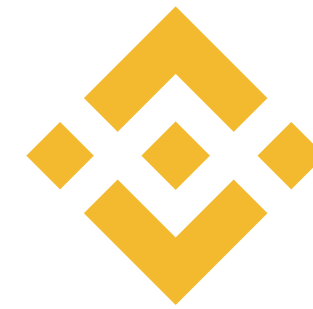
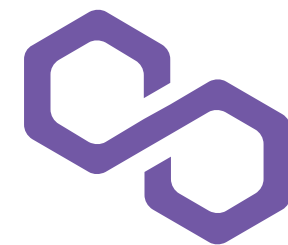
Layer 1 Blockchains

Blockchain computers are composed of nodes: physical computers, like PCs, joined together via a consensus mechanism

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Web3 is multi-chain; developers have many options when it comes to building on blockchains



Ethereum

Solana

Polygon

BNB Chain

Avalanche

Fantom

5.5M

15.4M

2.6M

9.4M

609K

308K

Active Addresses

1.1M

15.3M

3.4M

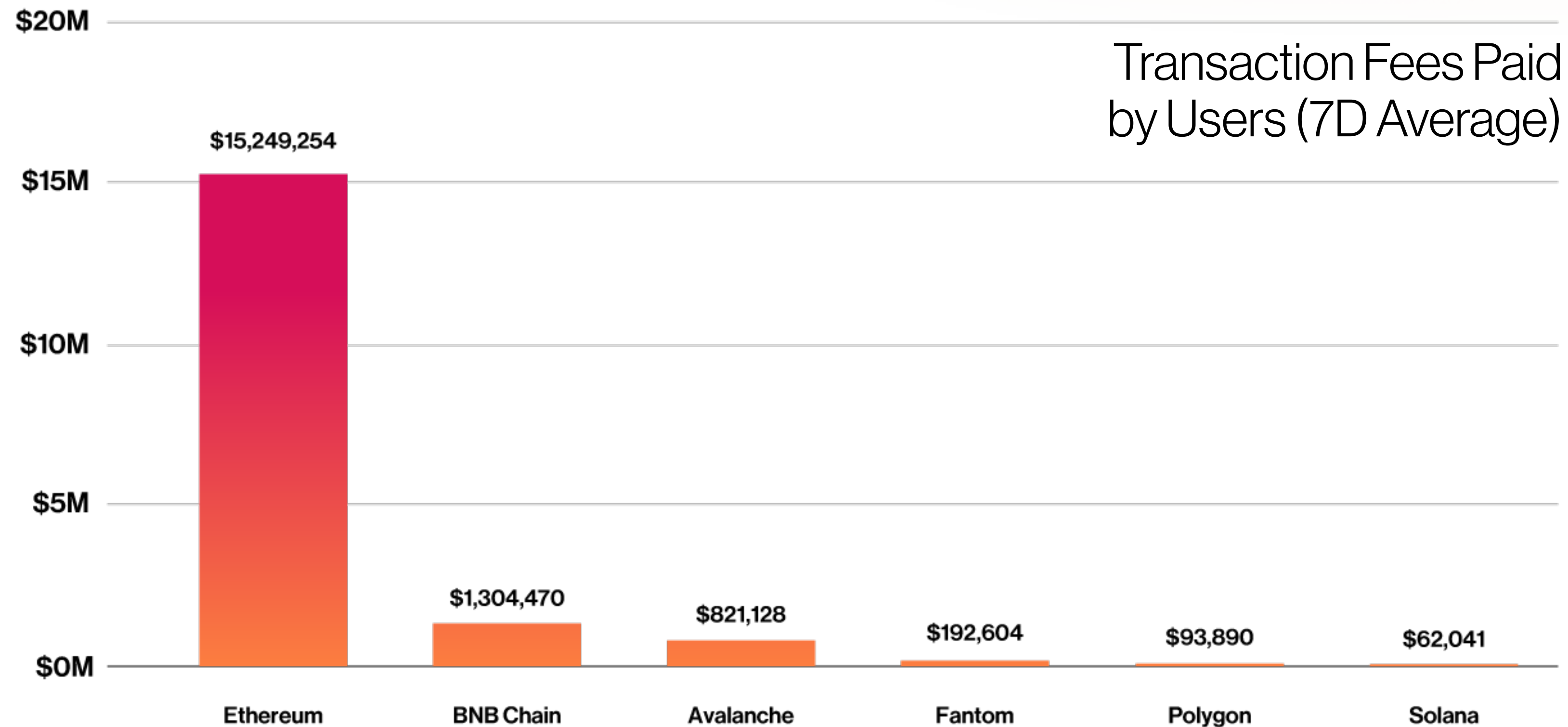
5.0M

832K

743K

Daily Transactions

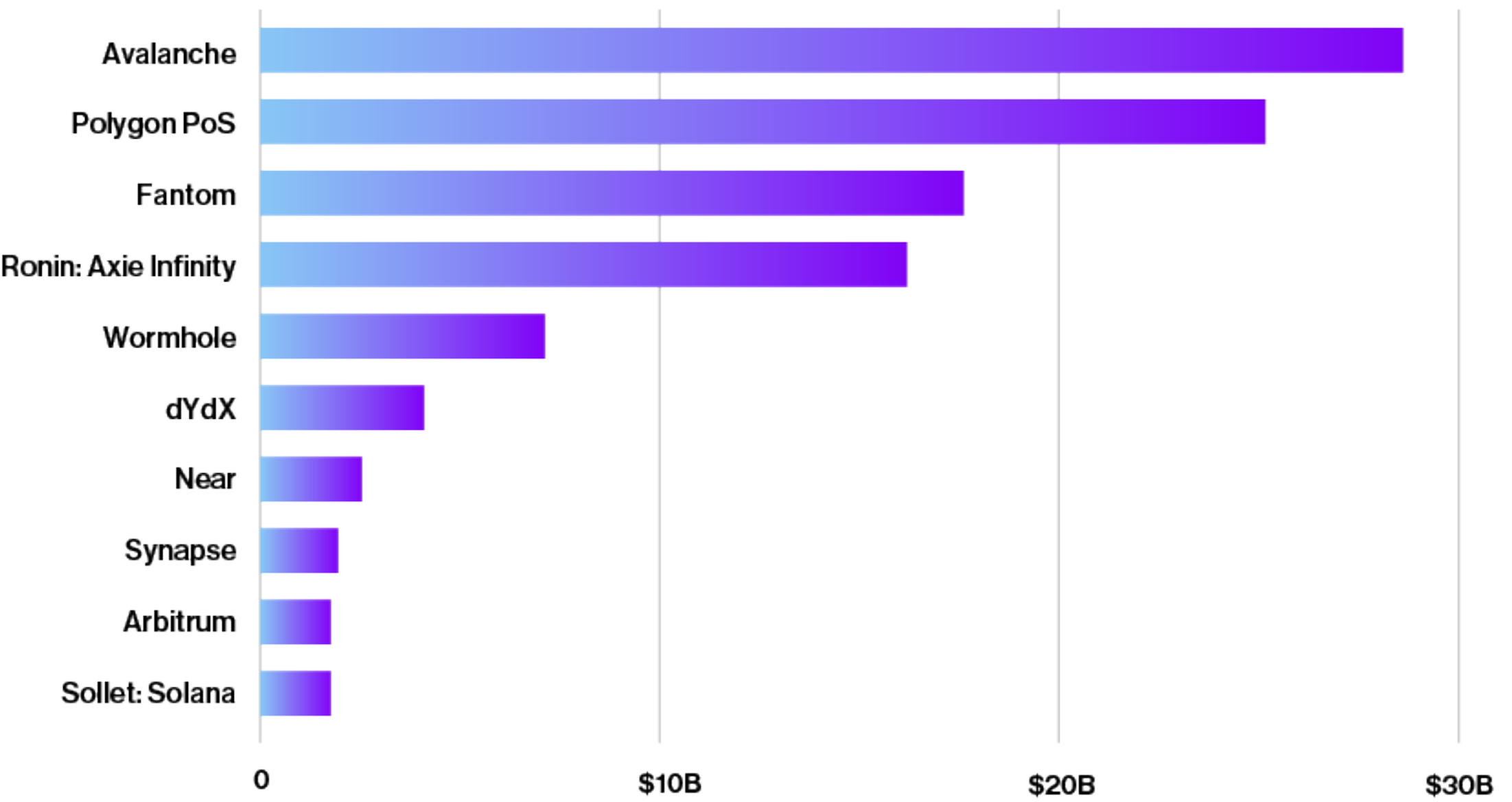
While other smart contract platforms rival Ethereum in users and usage, *the demand for block space is unmatched*



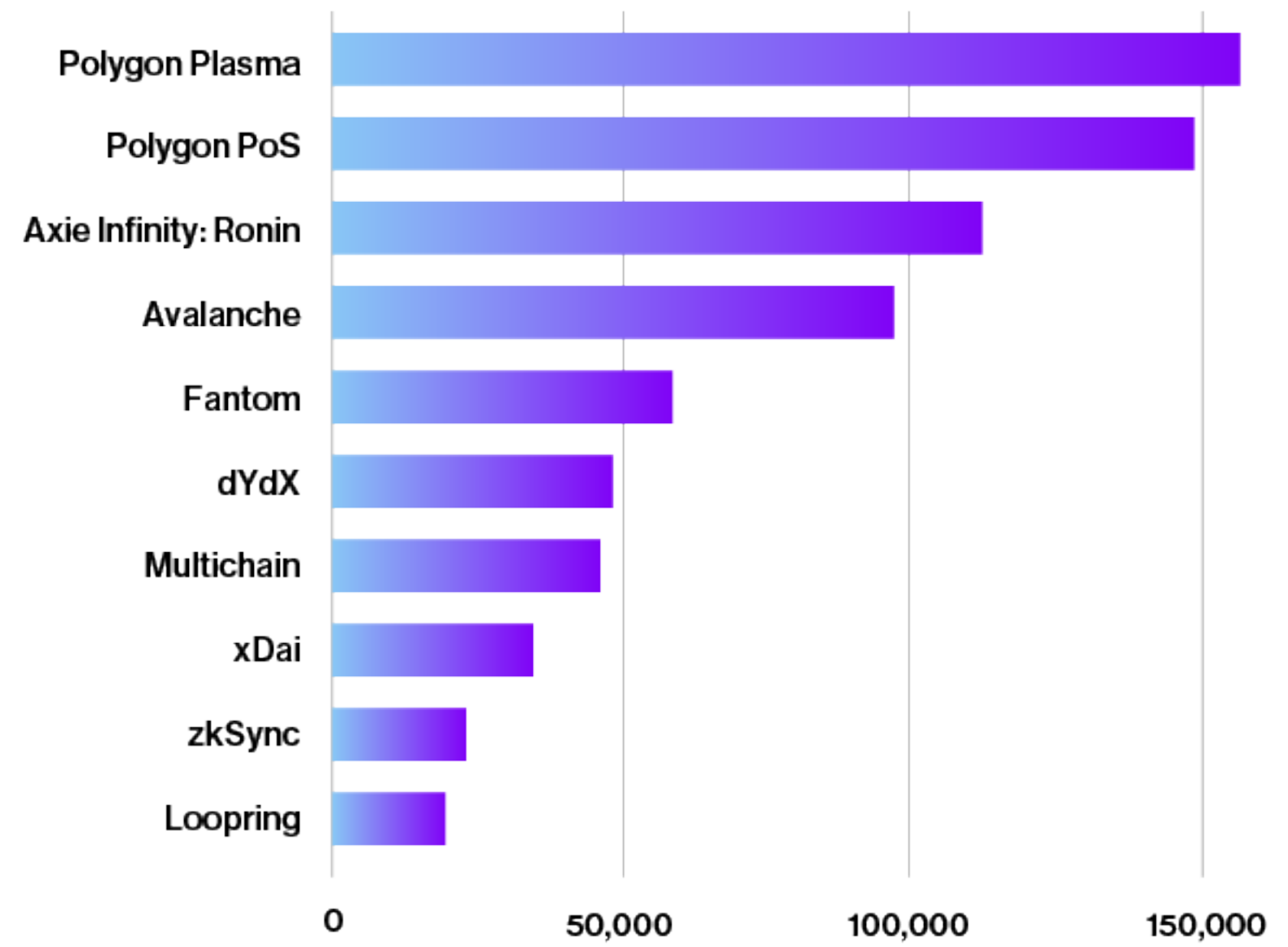
Source: <https://cryptofores.info>; Data is as of 5/12/2022.

With Ethereum L1 as the hub, a significant amount of value is being deposited into bridges

Top Ethereum Bridges by Total Volume In

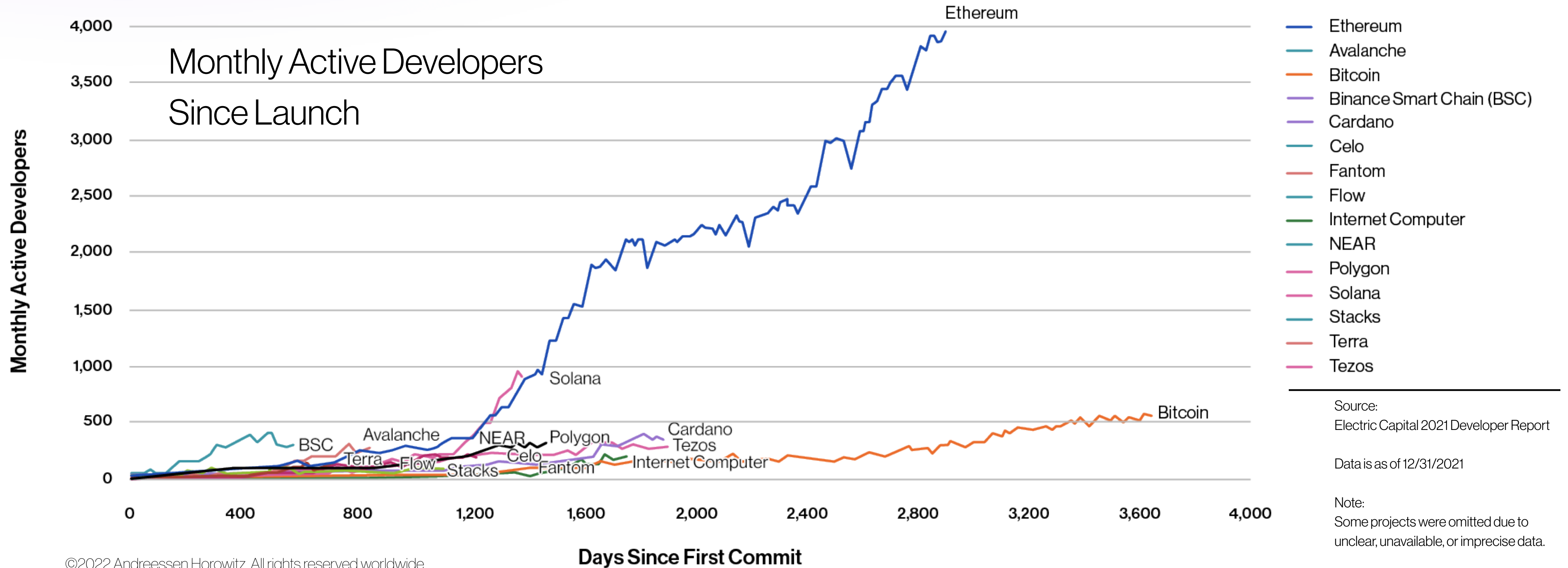


Top Ethereum Bridges by Total Depositors



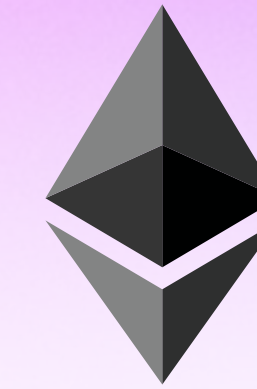
Layer / Blockchains

Ethereum continues to attract the most developers, but several emerging ecosystems are on a similar trajectory



Layer 2 Scaling

A layer 2 is a separate blockchain that extends the base layer and *inherits its security guarantees*



Optimistic Rollups

Transactions are assumed to be valid, but can be challenged if necessary

- More production-ready
- Correctness relies on game-theoretical incentives
- Finality on L1 depends on a 1-week challenge period
- Easier to program
- EIP-4844 (proto-danksharding) can make these rollups very cheap for users



Zero-Knowledge Rollups

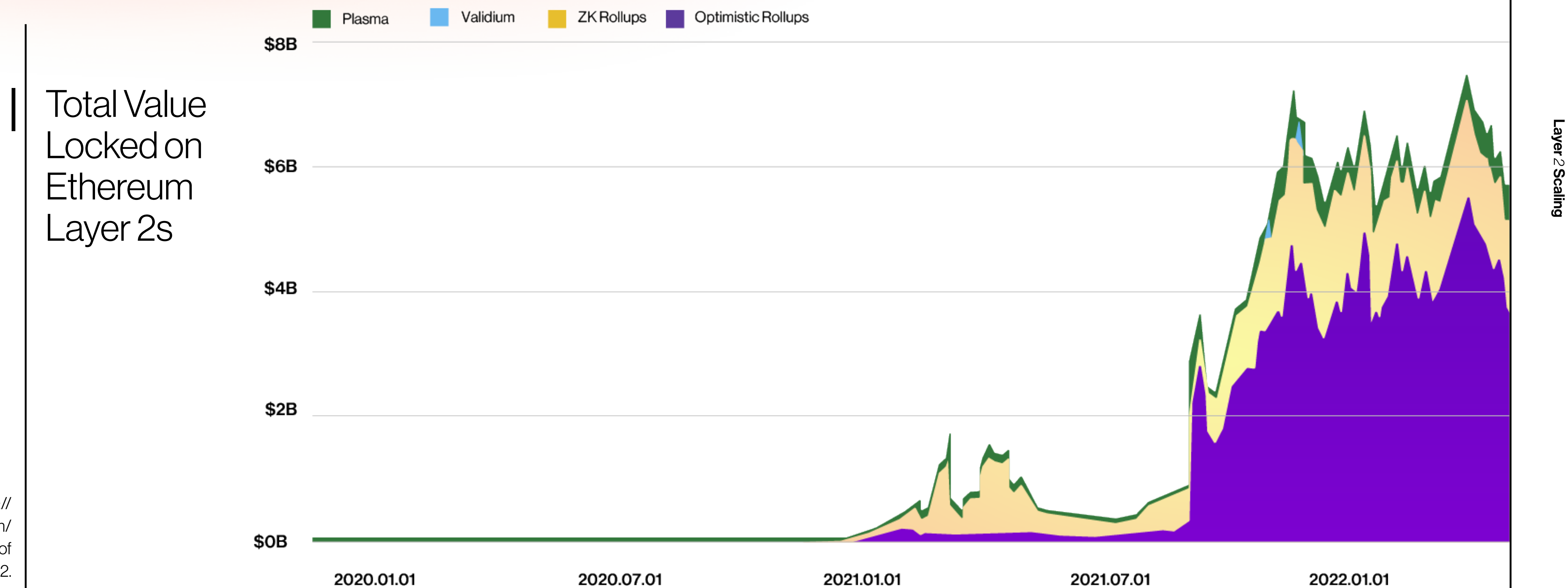
State transitions are computationally verified off-chain using validity proofs

- Less production-ready
- Correctness is mathematically guaranteed
- Finality on L1 is instant
- Harder to program
- Proofs can be computationally expensive, though this is rapidly improving



Layer 2 Scaling

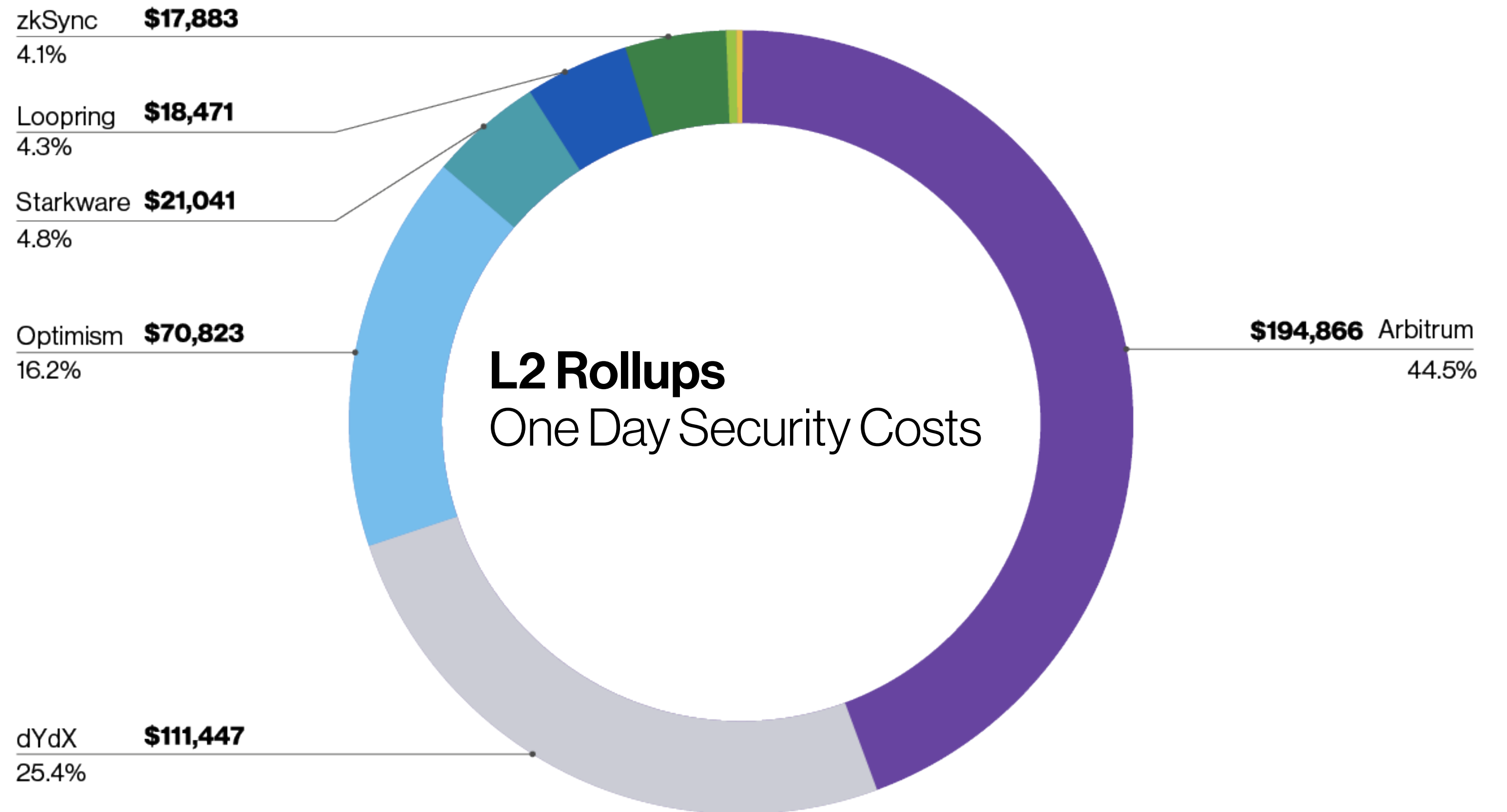
Optimistic rollups are the most popular L2 tech today, but *ZK rollups* are just beginning to come online



Source: <https://l2beat.com/>
Data is as of 5/12/2022.

L2 rollups pay for *Ethereum's* security

Today, L2 rollups contribute to
~1.5%
of all fees paid
on Ethereum












Source: <https://l2fees.info/>; Data is as of 5/12/2022.

L2 rollups are competing hard against each other to bring transaction fees down

Source: <https://l2fees.info/>
Data is as of 5/12/2022.

Layer 2 Scaling

Name	Send ETH	Swap Tokens
 Metis Network	\$0.01	\$0.07
 Loopring	\$0.20	\$0.48
 zkSync	\$0.22	\$0.54
 Polygon Hermez	\$0.25	-
 Boba Network	\$0.72	\$0.94
 Optimism	\$0.88	\$1.30
 Arbitrum One	\$2.27	\$3.15
 Aztec Network	\$3.09	-
 Ethereum	\$4.48	\$22.41

web3

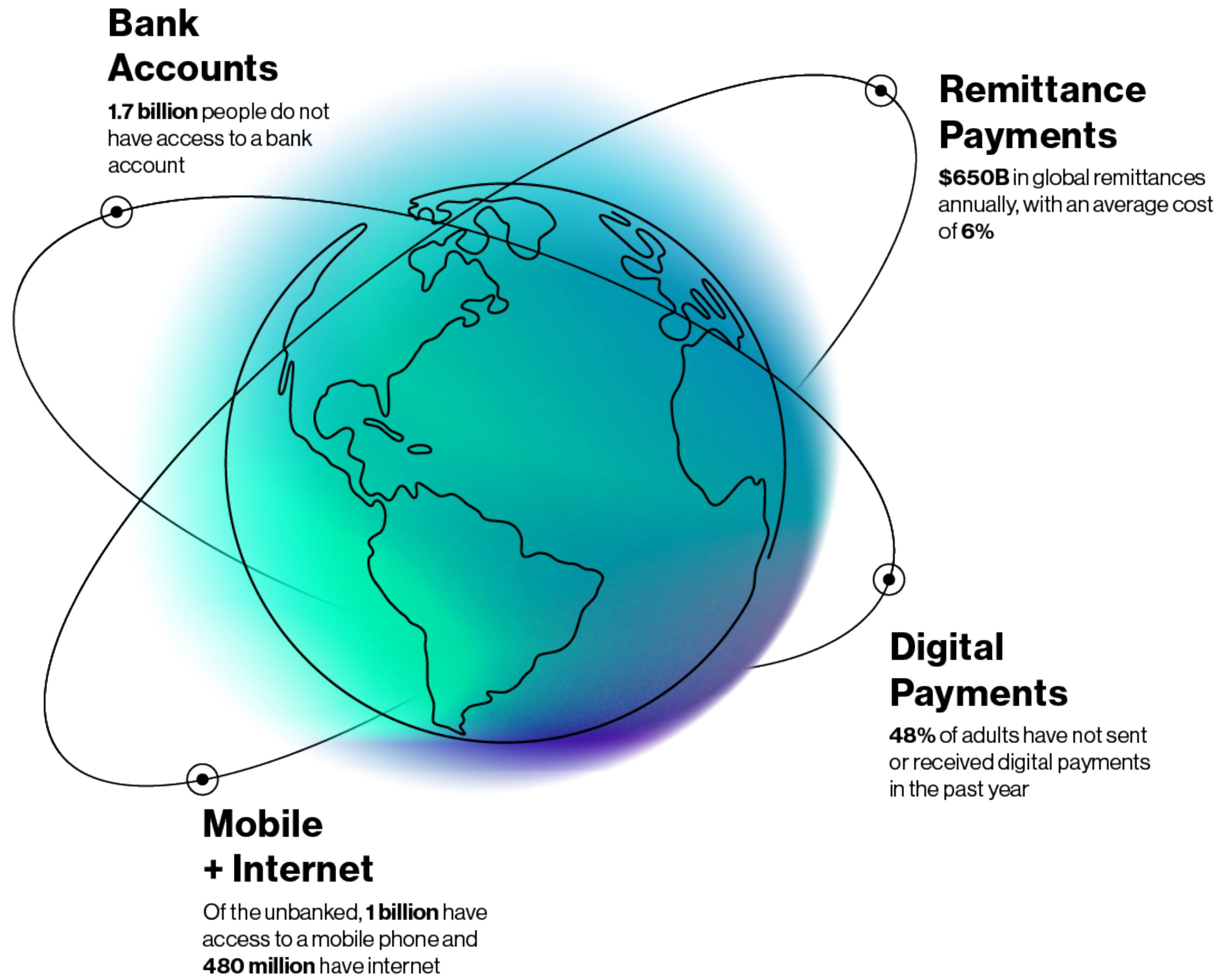
State of Crypto

DeFi

2022

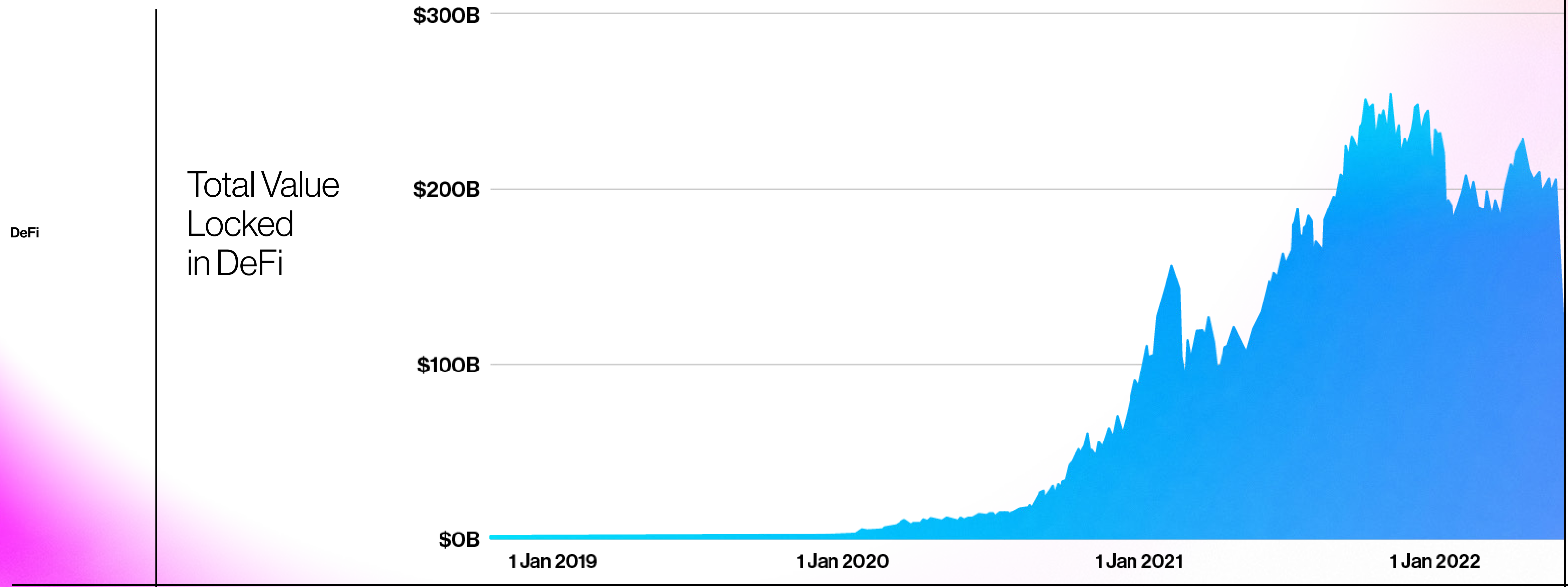
24

A huge part of the world is underserved by existing financial institutions



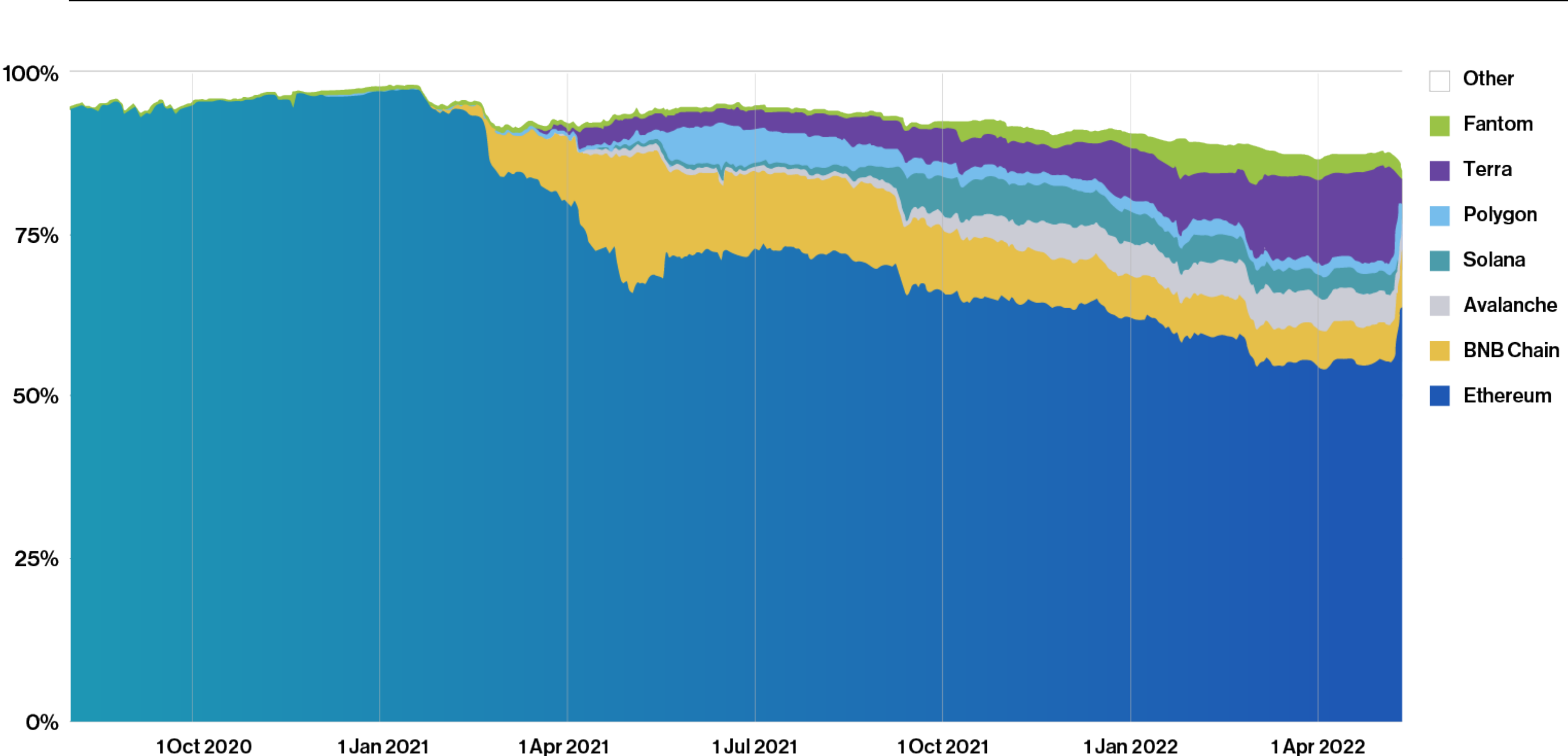
Sources:
The Global Findex Database, 2017 Report;
The World Bank (2020 and 2021 data)

DeFi has grown from nearly zero to over \$100 billion in *less than two years*



Source: DeFi Llama; Data is as of 5/12/2022.

Newer blockchains are trying to replicate the success of DeFi on Ethereum



DeFi
DeFi Market Share (TVL) by Blockchain

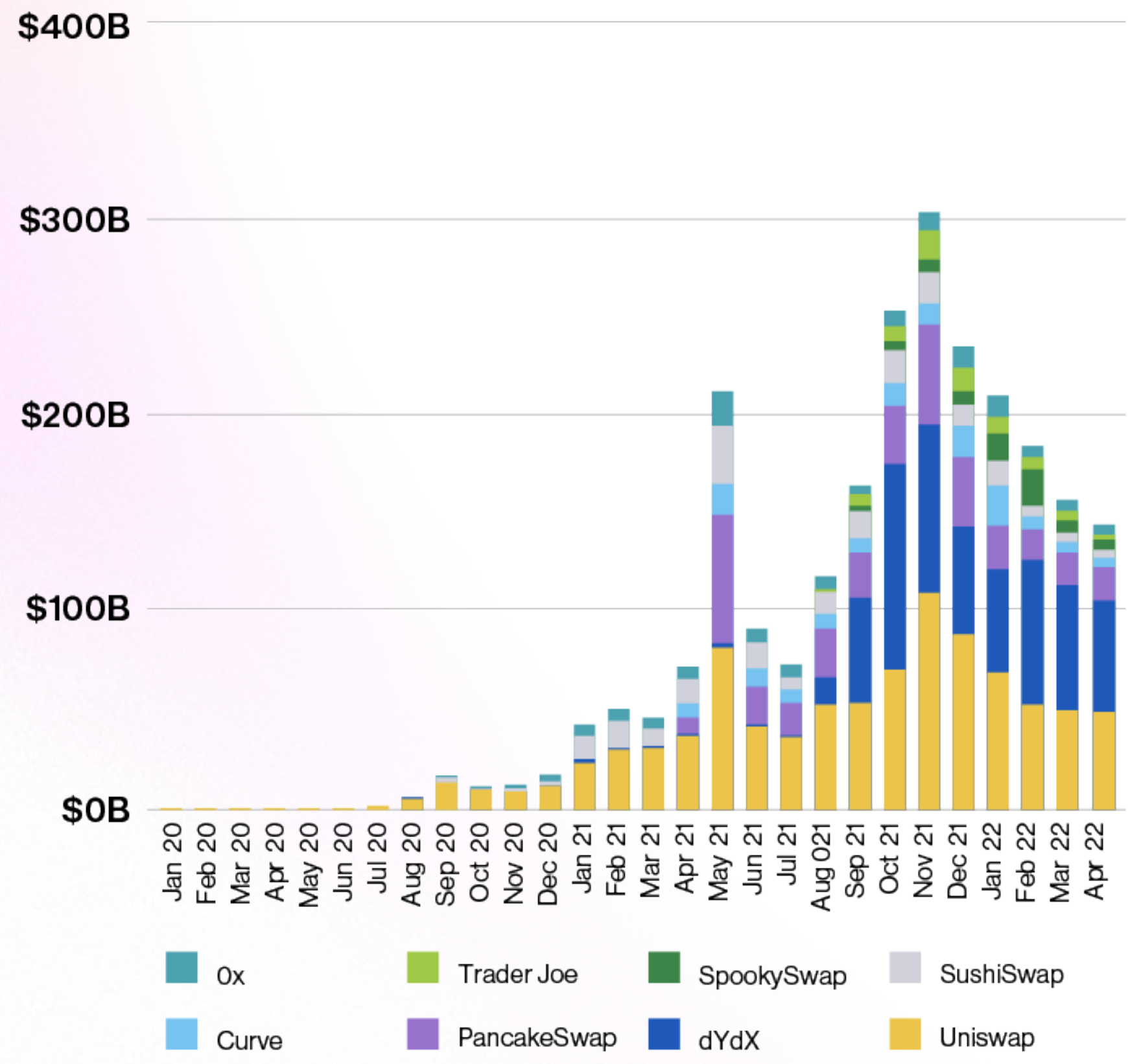
Source: Defi Llama;
Data is as of 5/12/2022.

Token exchange and lending protocols are the most popular DeFi use cases today

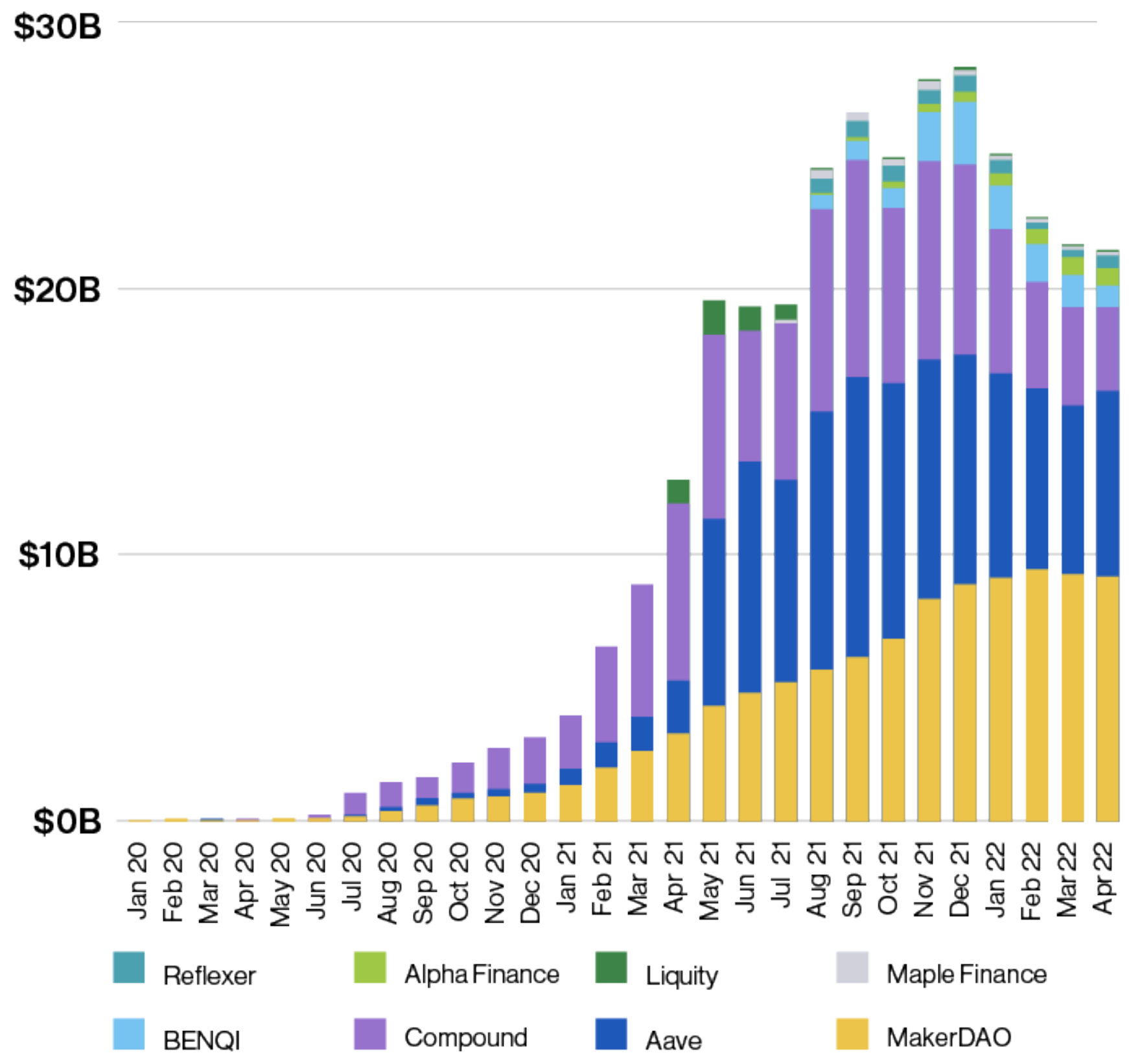
28

Source: Token Terminal
Data is through April 2022.

Trading Volume on Decentralized Exchanges



Borrowing Volume on Decentralized Lending Protocols



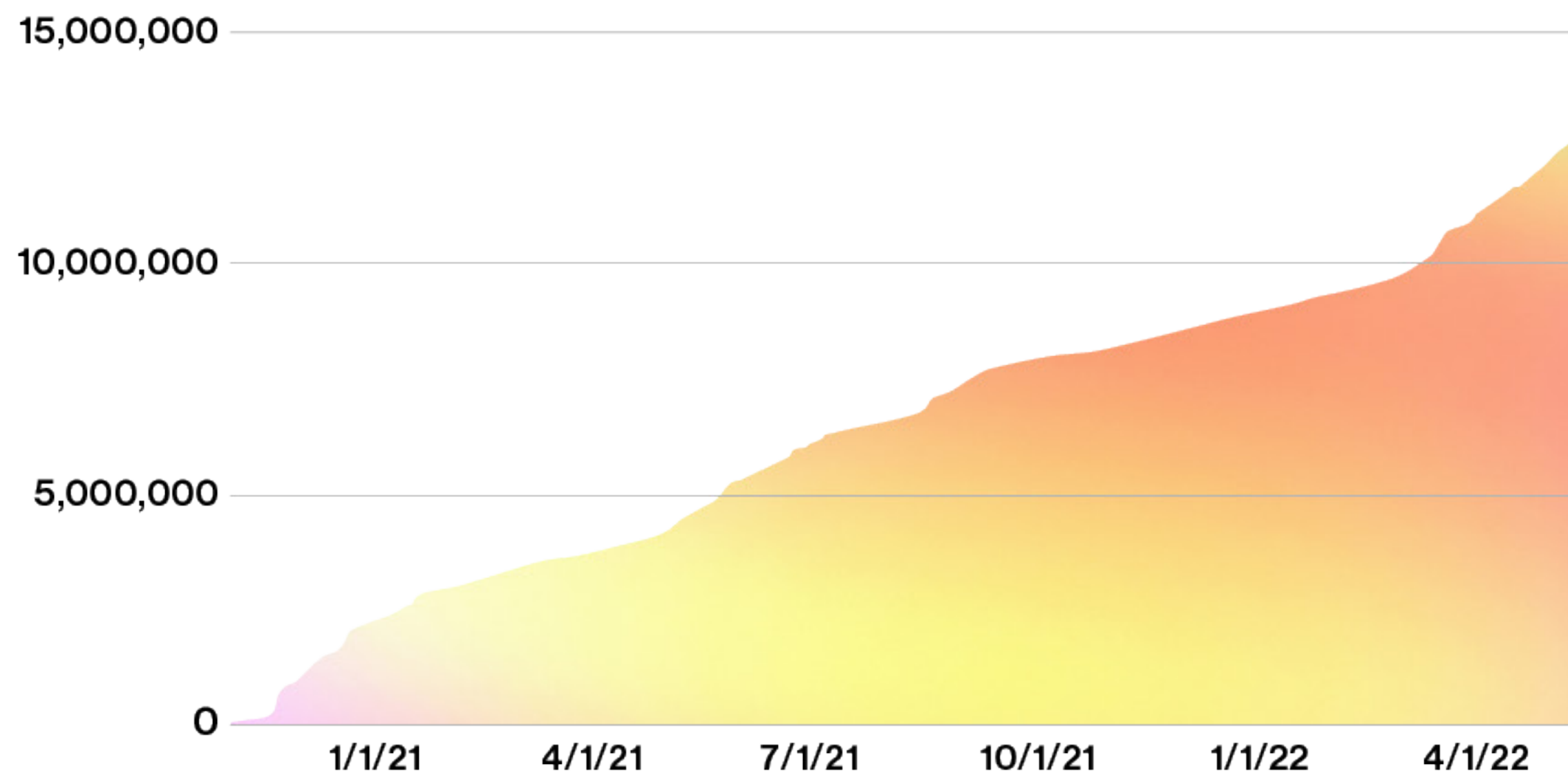
Proof-of-stake is coming to Ethereum

Source: Nansen
Data is as of 5/12/2022.

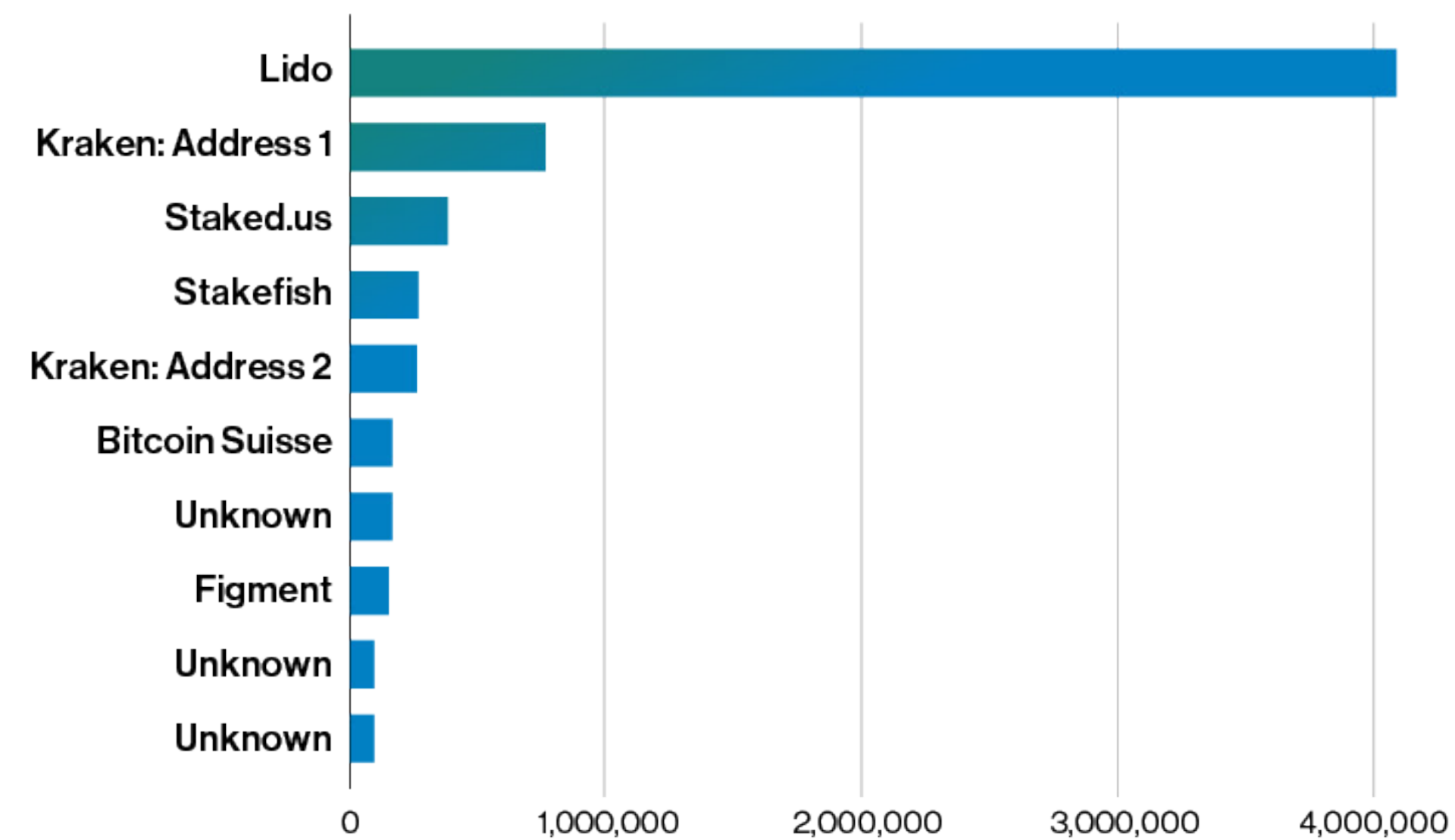
DeFi



Total ETH Staked to Beacon Chain

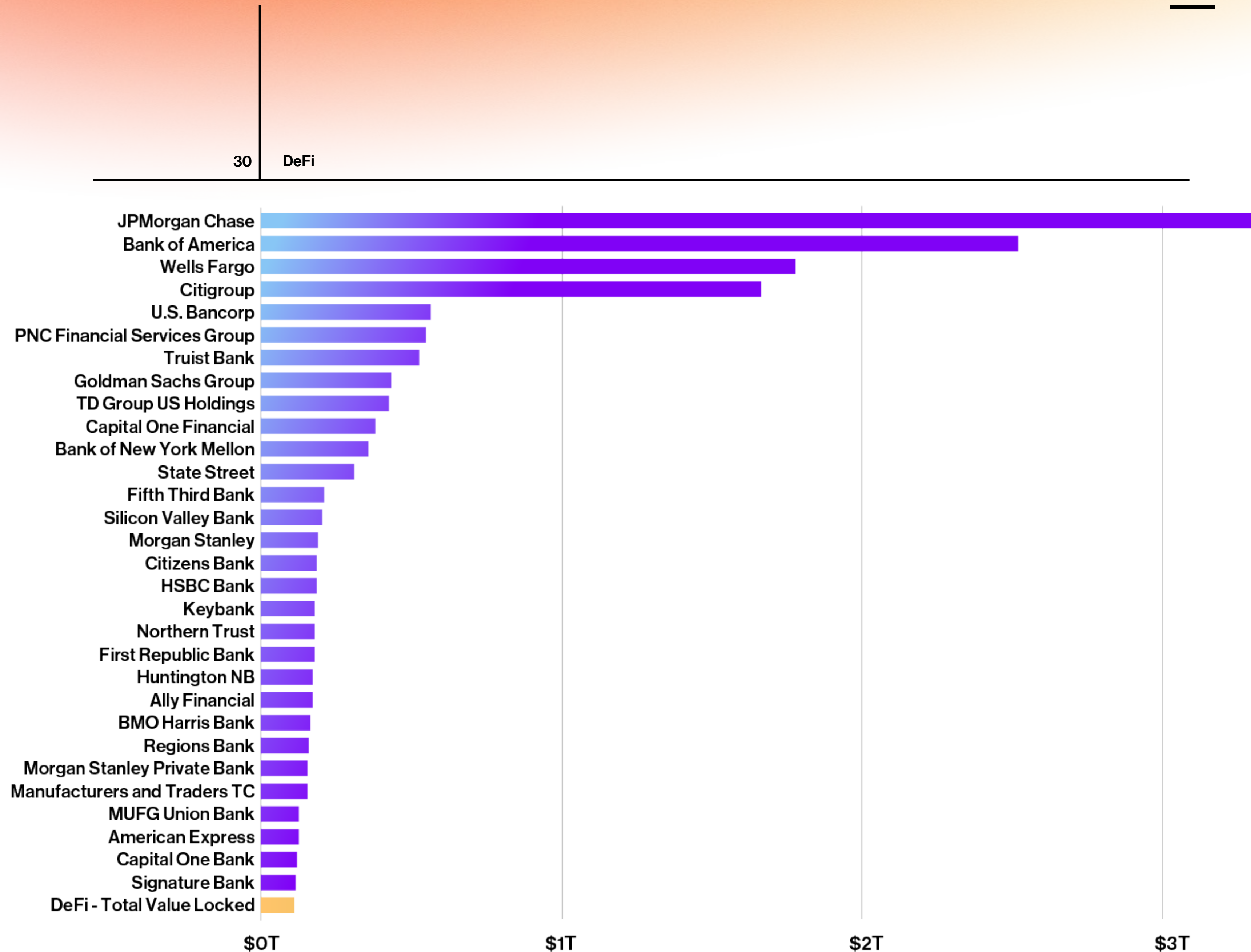


Top ETH 2 Deposit Addresses



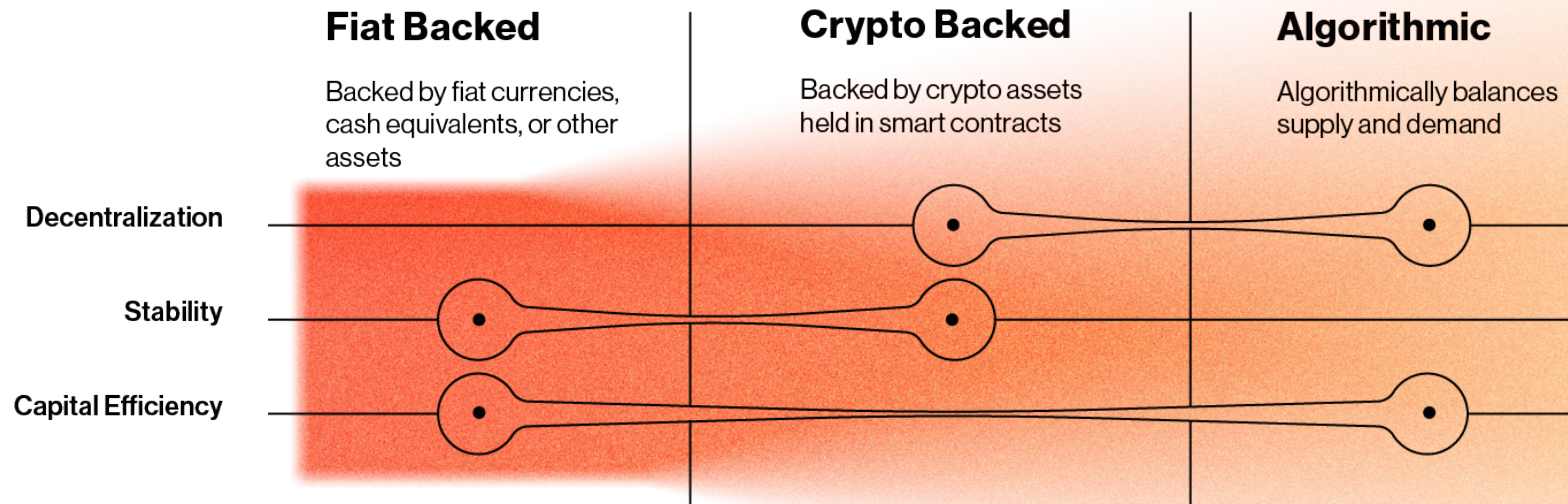
DeFi would represent the 31st largest US bank by total assets under management

Source:
 Defi Llama, <https://www.federalreserve.gov/releases/lbr/current/>;
 Bank AUM data is as of 12/31/2022
 DeFi TVL data is as of 5/12/2022.

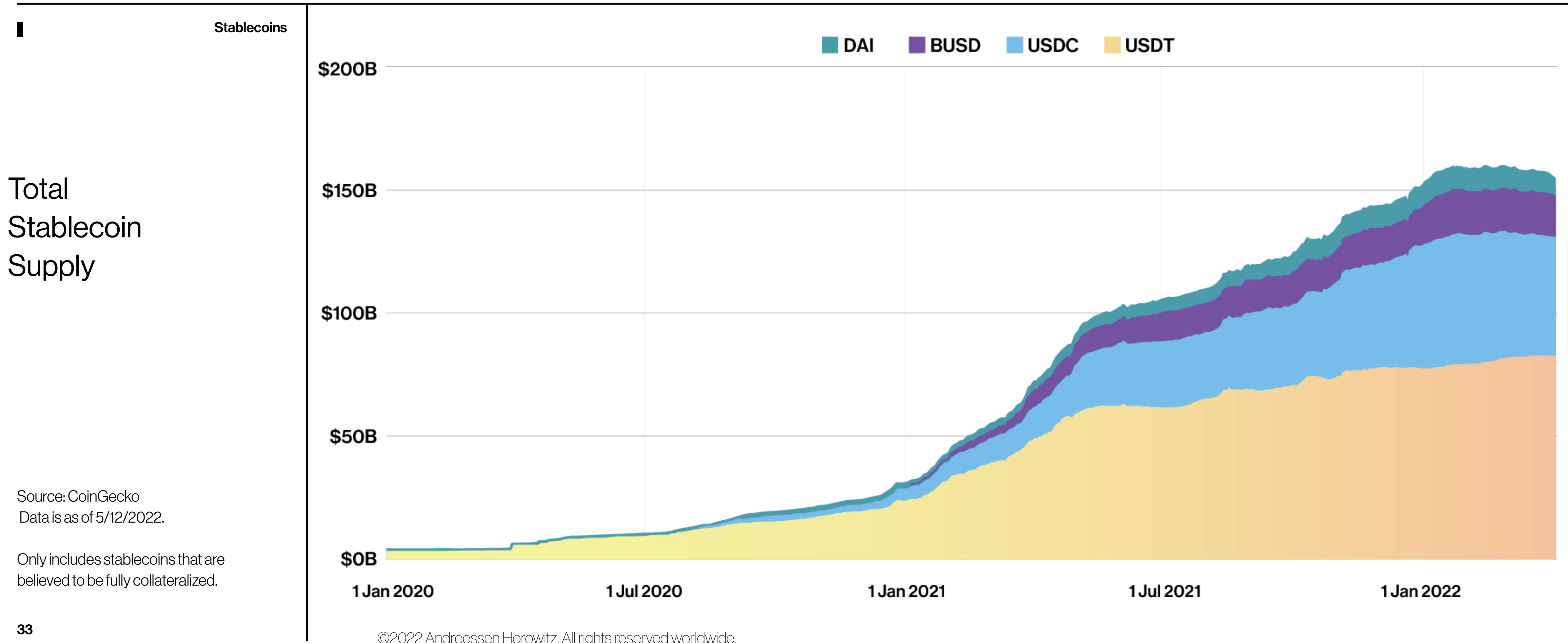


Stablecoins

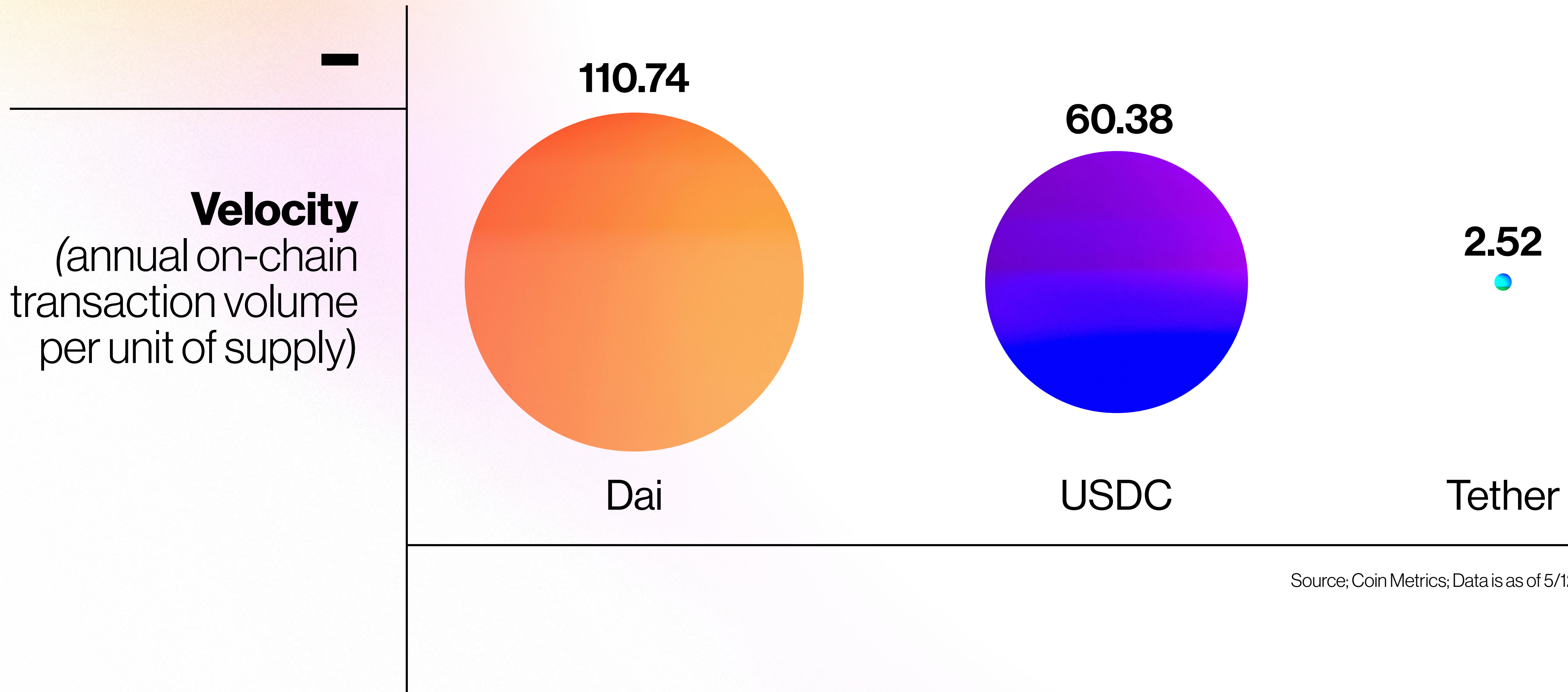
There are *three primary categories* of stablecoins, though the lines between them are blurry



Increasing use of stablecoins demonstrates demand for a digital dollar

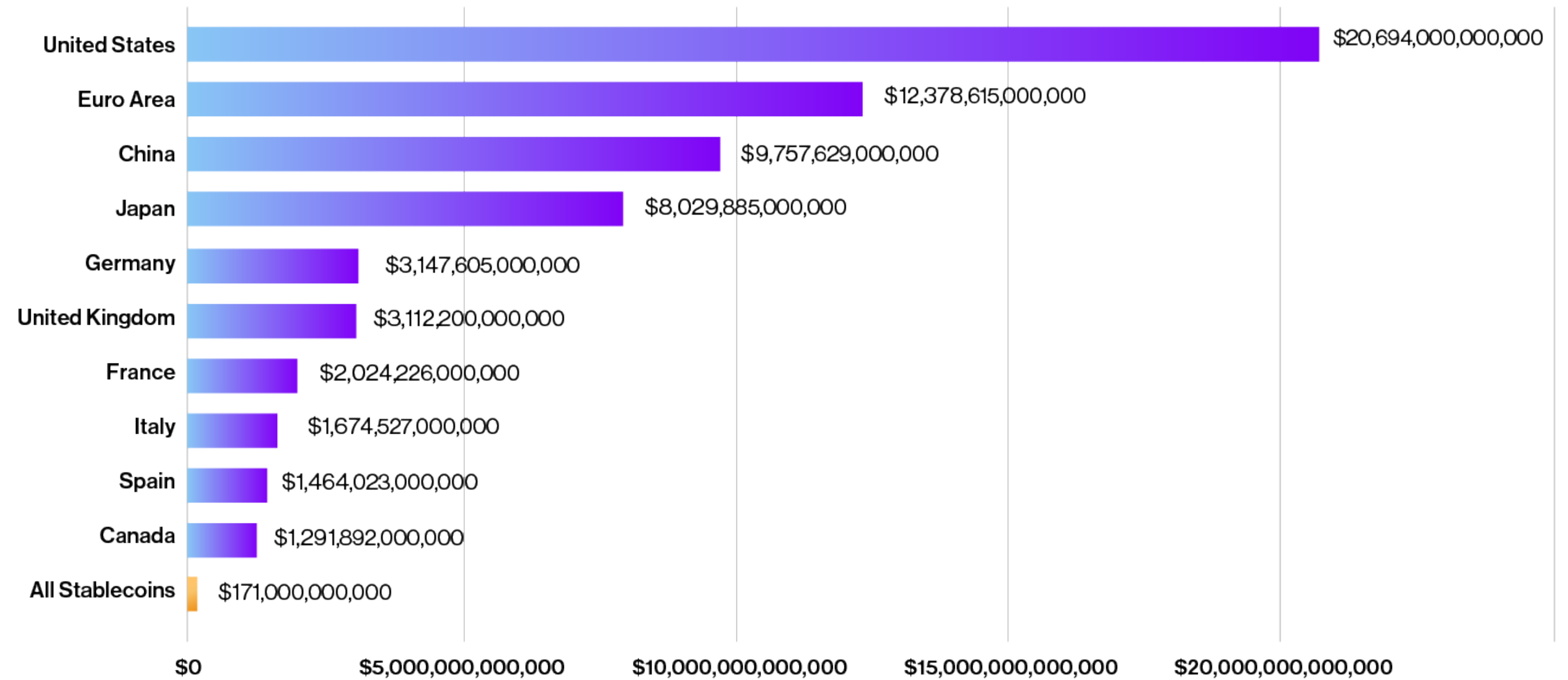


The on-chain velocity (i.e., rate of turnover) for today's top stablecoins varies drastically



**Stablecoins
represent
just a *tiny*
fraction of
the world's
money
supply**

Total Money Supply (M1) by Country



Source: Messari, <https://take-profit.org/en/statistics/money-supply-m1/>
Data is as of 5/12/2022; updated to correct error in source data on 5/19/2022



NFTs

We've seen several categories of NFTs emerge, but it's still very early days

01.

Profile Pictures

Images displayed on social media that represent an online identity

02.

Art & Music

A more efficient and transparent way for artists to monetize their work

03.

Gaming

Unique assets designed to be used within a game

04.

Utility

Items that grant special access, benefits, rewards, or memberships

05.

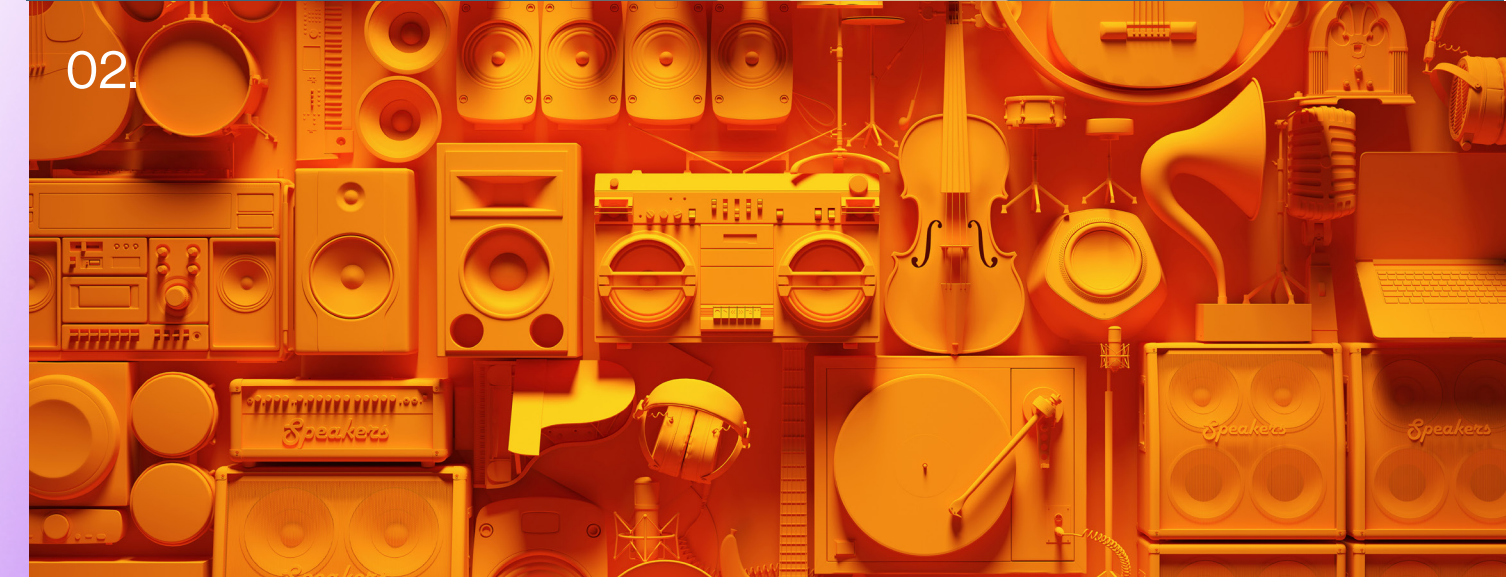
Virtual Worlds

Ownable properties that exist in new virtual worlds

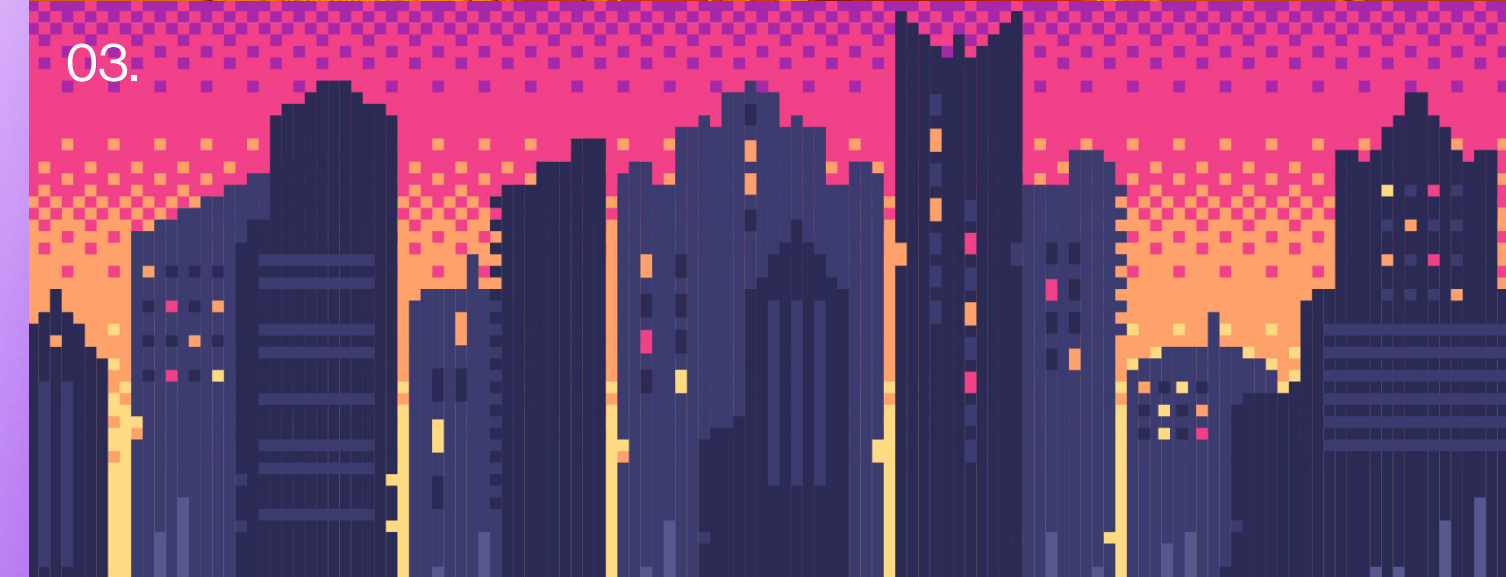
01.



02.



03.



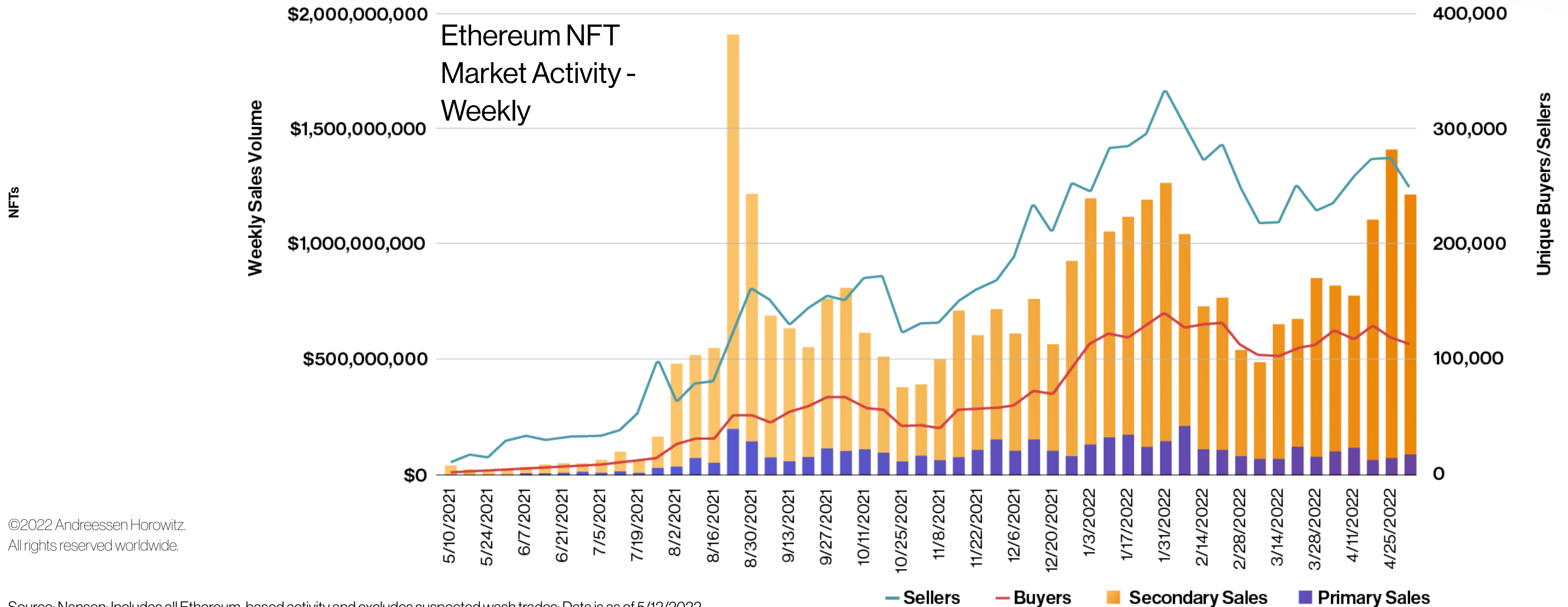
04.



05.



The NFT market *remains hot*, and we are beginning to see mainstream adoption



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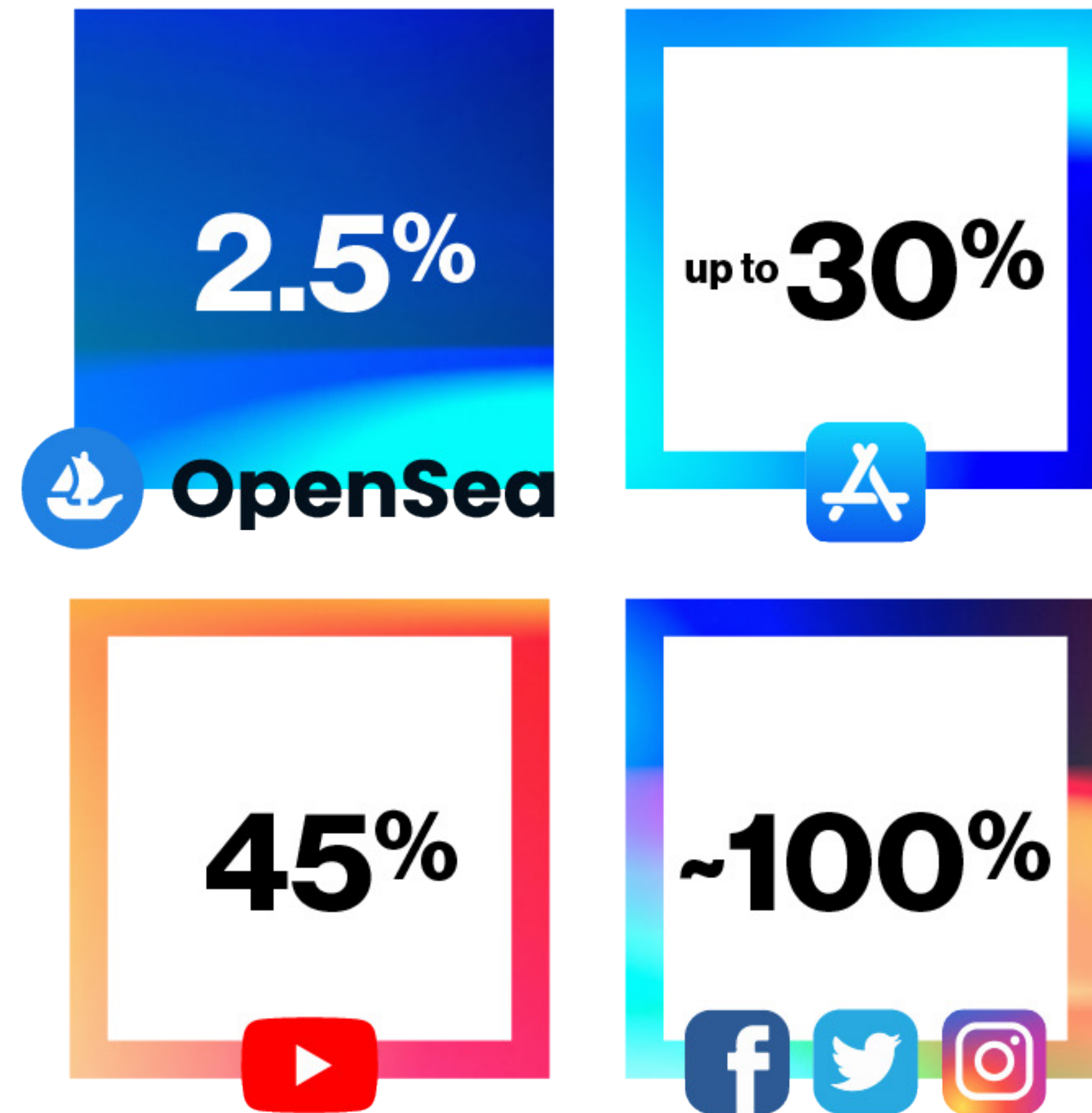
Source: Nansen; Includes all Ethereum-based activity and excludes suspected wash trades; Data is as of 5/12/2022.

Web3 platforms have *drastically* *lower take rates* than the internet giants today

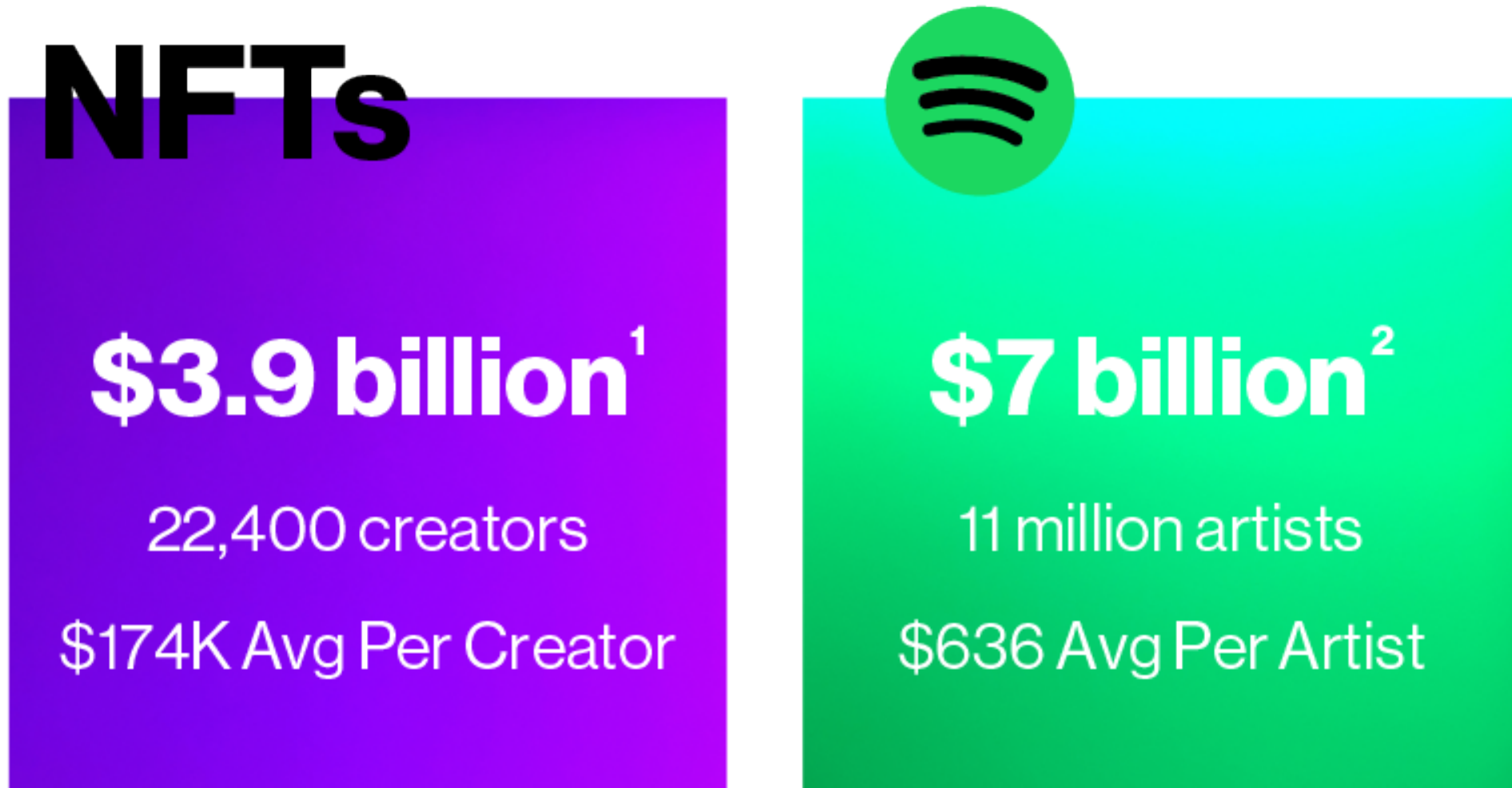
“You know something is profoundly wrong with our economy when Big Tech has a higher take rate than the mafia.”

– Ritchie Torres, U.S. Congressman representing the South Bronx

Take Rates of Popular Creator Platforms



Estimated Creator Revenues by Source* (2021):



*Total revenue is calculated as the sum of all ETH-denominated primary sales of ERC-721 or ERC-1155 NFTs, plus creator royalties from secondary sales on OpenSea, in 2021. The number of creators is represented by the count of unique ERC-721 and ERC-1155 NFT collections that had a mint event or a sale on OpenSea in 2021.

*Total revenue is represented as the amount paid to rights holders (e.g., record labels, distributors, etc.) in 2021. The number of artists is the reported number of creators on the platform at the end of 2021.



*Total revenue is estimated based on YouTube's 2021 ad revenue and the reported 55% that is distributed to creators. The number of channels is based on the number of active channels as reported by public data sources. (Average payout per channel updated to correct version control error on 5/19/2022.)

*Total revenue is estimated based on Mark Zuckerberg's pledge to "pay creators \$1 billion through 2022" prorated over the 2021 time period. The number of users is based on Facebook's reported MAUs at the end of 2021.

NFTs offer creators *a whole new way* to monetize directly with their fans

NFTs

Sources:

- ¹ a16z analysis of public data on the Ethereum blockchain,
 - ² <https://www.forbes.com/sites/marisadellatto/2022/03/24/spotify-says-it-paid-7-billion-in-royalties-in-2021-amid-claims-of-low-pay-from-artists/>
 - ³ <https://www.socialmediatoday.com/news/youtube-generated-288-billion-in-ad-revenue-in-2021-fueling-the-creator/>
 - ⁴ <https://www.facebook.com/zuck/posts/10113607549897721>
- * Median creator payout data for the big tech platforms was unavailable.

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There is incredible innovation happening in the NFT space

Airdrops

Cool Cats @coolcatsnft
 🐱 COOL CAT HOLDERS 🐱

Your Cool Pets claim is now LIVE! Cool Cat holders will be able to claim their eggs whenever they want - today, next week, next year, etc. Welcome to Cooltopia! ❤️

coolcatsnft.com

World of Women @worldofwomennft · Mar 26
 The #WoWGalaxy collection just sold out! 🥳

THANK YOU! 🙌❤️

This is a historical day for us and women in Web3. We are proud of what we have accomplished so far, humbled by your support, and excited to build the future together! 🙌

446 609 2,860

Music Royalties

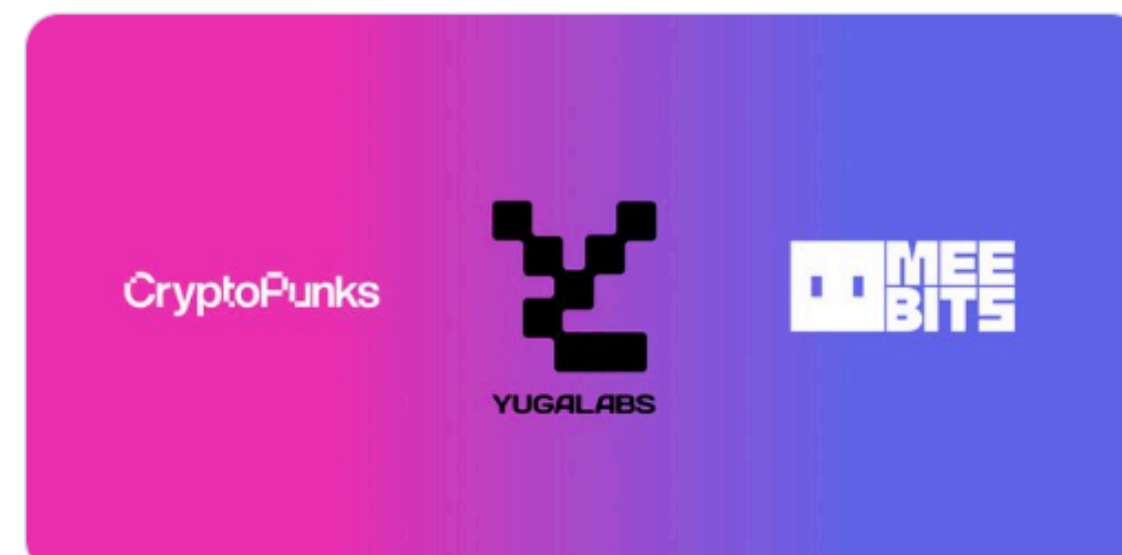
3LAU @3LAU · Oct 28, 2021
 The 1st @join_royal assets are being minted!

They are my first NFTs that GIVE RIGHTS IN MY MUSIC to the people!

We call them Limited Digital Assets (LDAs) because they do a lot more than standard ERC-721 tokens.

IP/Commercial Rights

Yuga Labs @yugalabs · Mar 11
 Some big news to share today: Yuga has acquired the CryptoPunks and Meebits collections from @LarvaLabs, and the first thing we're doing is giving full commercial rights to the NFT holders. Just like we did for BAYC and MAYC owners.



NFT DAO Governance

Treasury 23,125

DAO Docs Discourse Playground

← Proposal 42 Executed

100 Eth for Emergency Humanitarian Assistance in Ukraine with UNICEF

For 61	Against 0	Abstain 0
--------	-----------	-----------

Threshold Quorum 22 votes

Ended 10:38 PM EST Mar 10, 2022

IRL Activation

Pinned Tweet

doodles @doodles · Mar 22
 austin was magical 🌈🏳️‍🌈 @sxsw

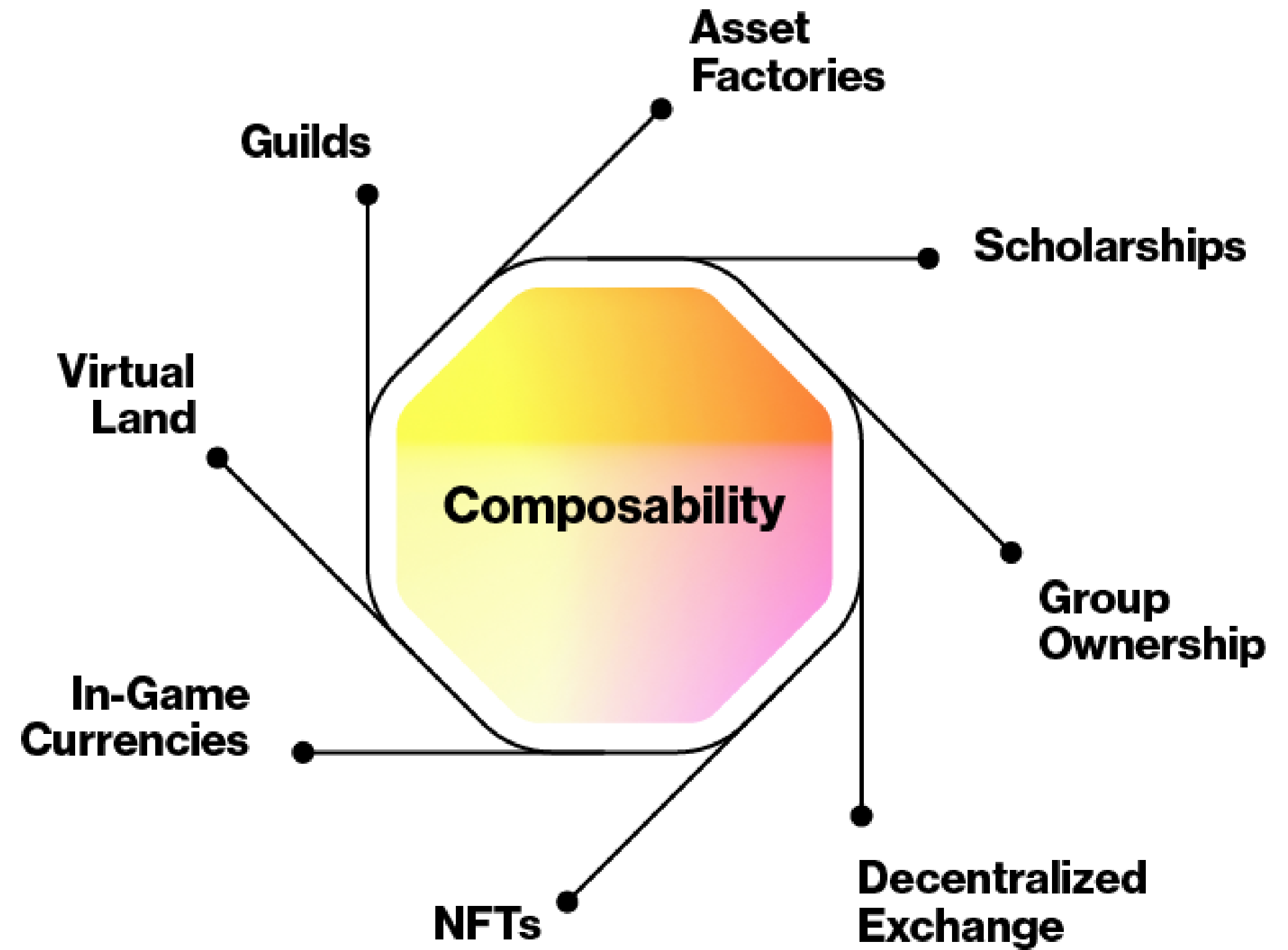
@Shopify @BehrPaint @VTProDesign



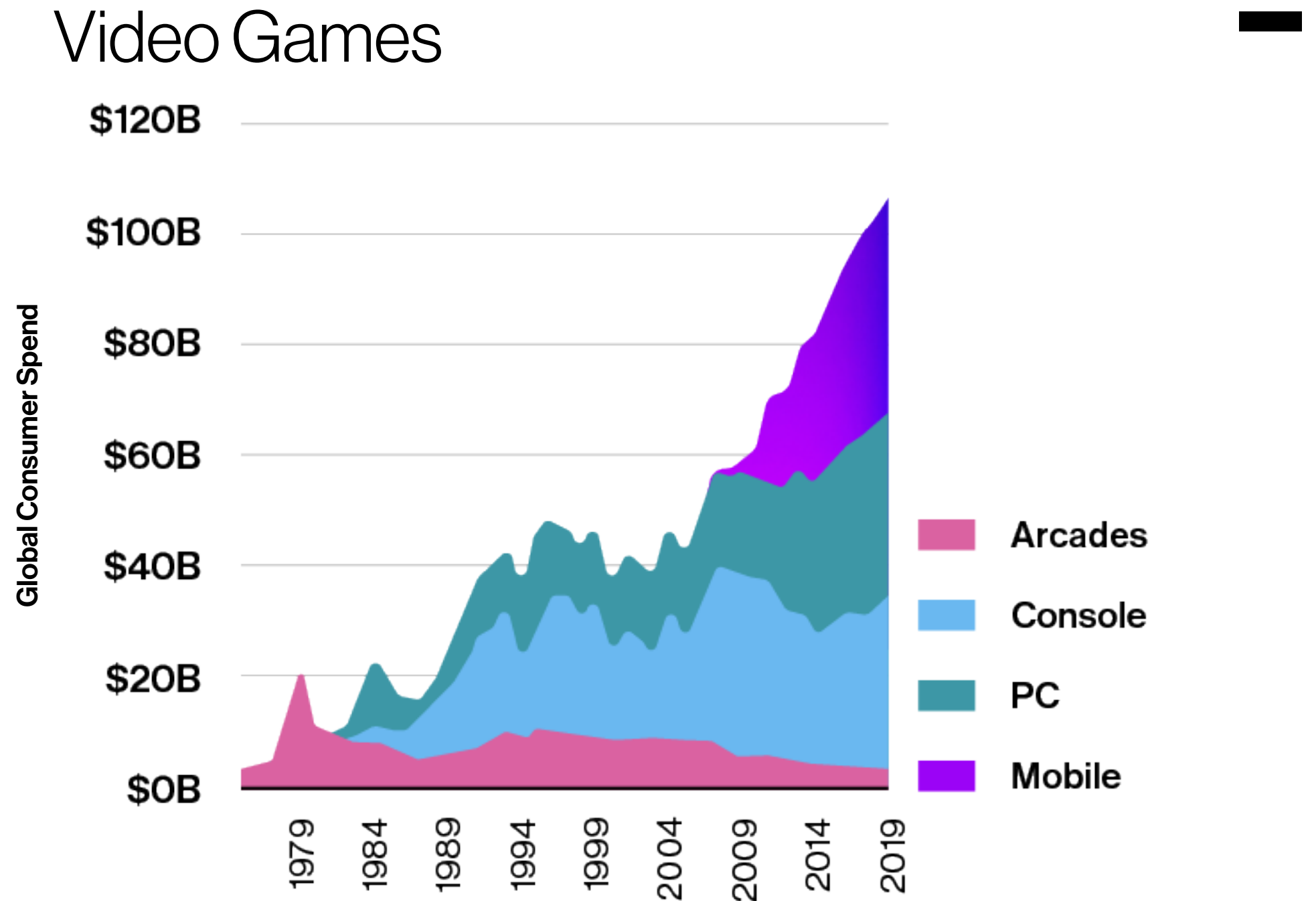
Web3 Gaming

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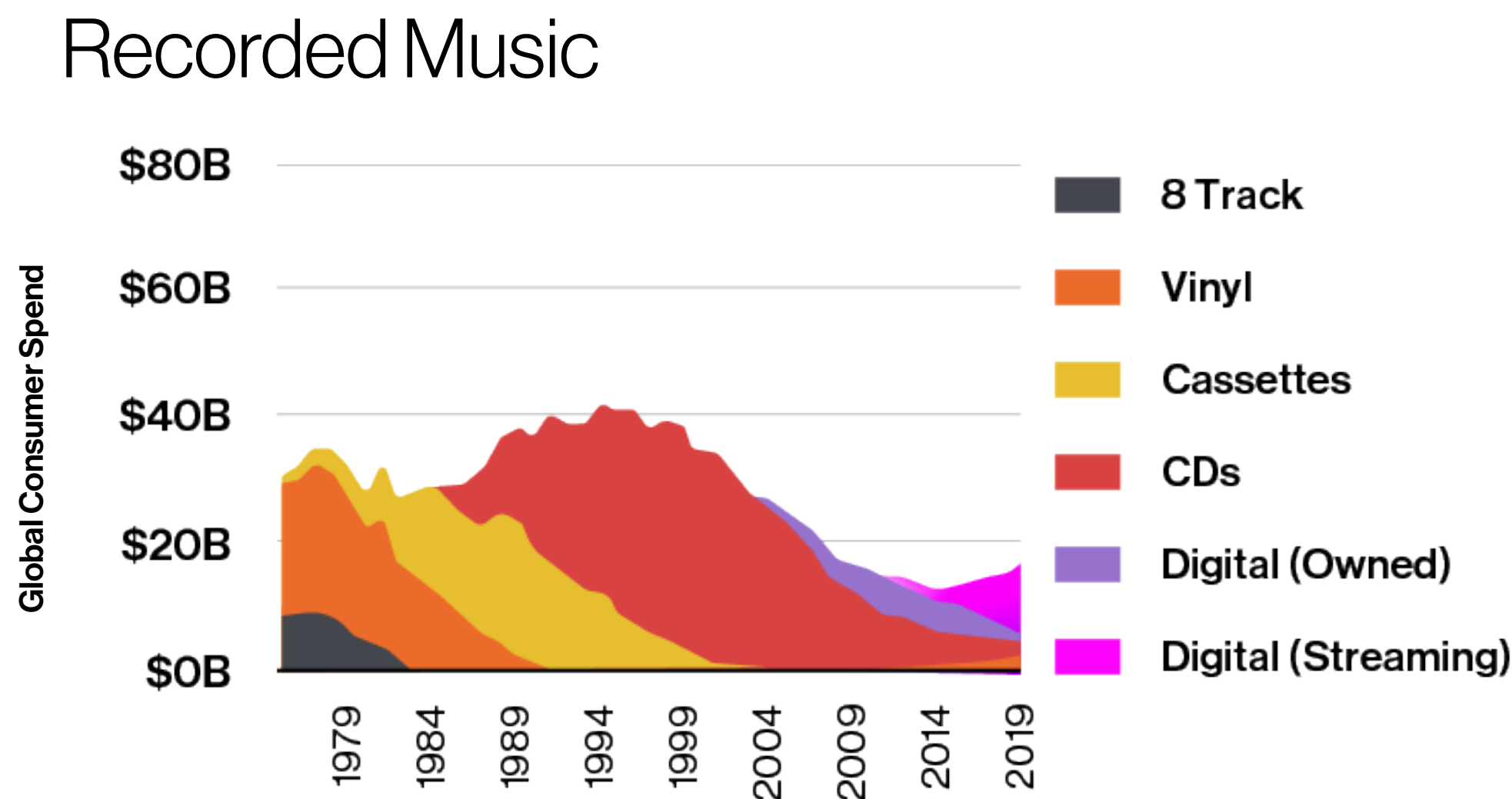
**We are just
beginning
to see the
*potential of
web3 gaming***



The video game industry has seen massive growth, driven by the *layering* of new platforms and business models

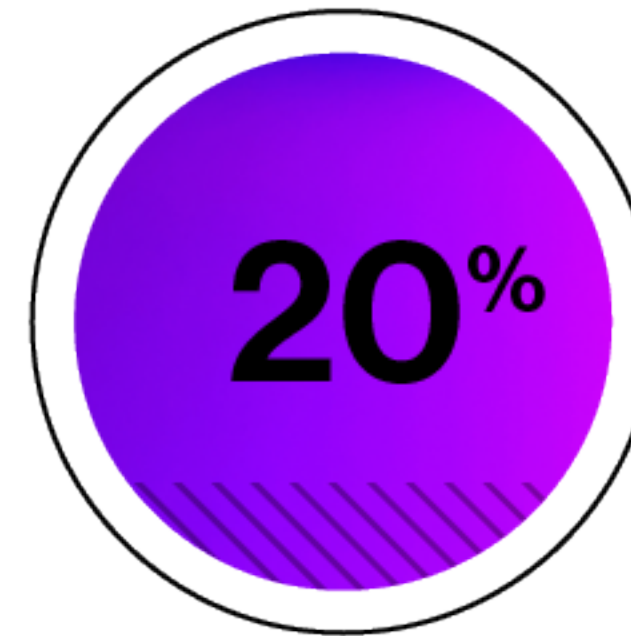


When the internet came along, video games responded by embracing new genres like MMOs and battle royale, new business models like free-to-play and virtual goods, and new complementary behaviors like streaming.

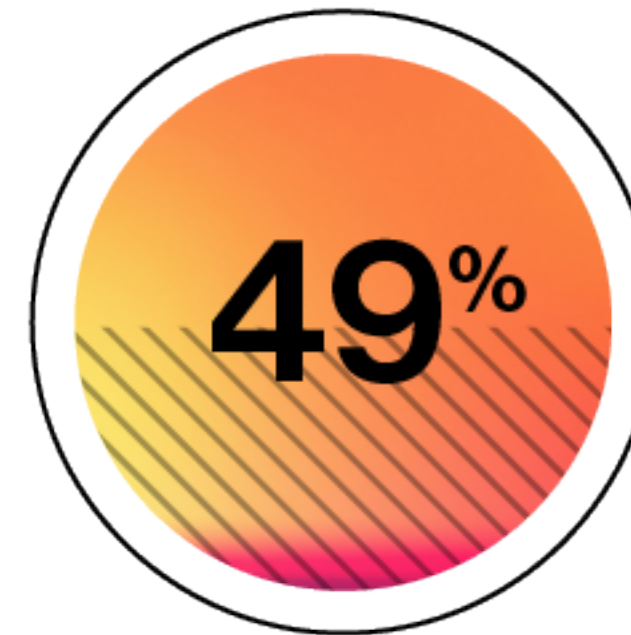


The music industry responded by spending decades filing lawsuits against innovators, and eventually accepting the incremental improvement of allowing users to subscribe to bundled content via streaming platforms.

There is a huge market opportunity at the intersection of web3 and gaming



of NFT sales volume in 2021 was gaming-related assets

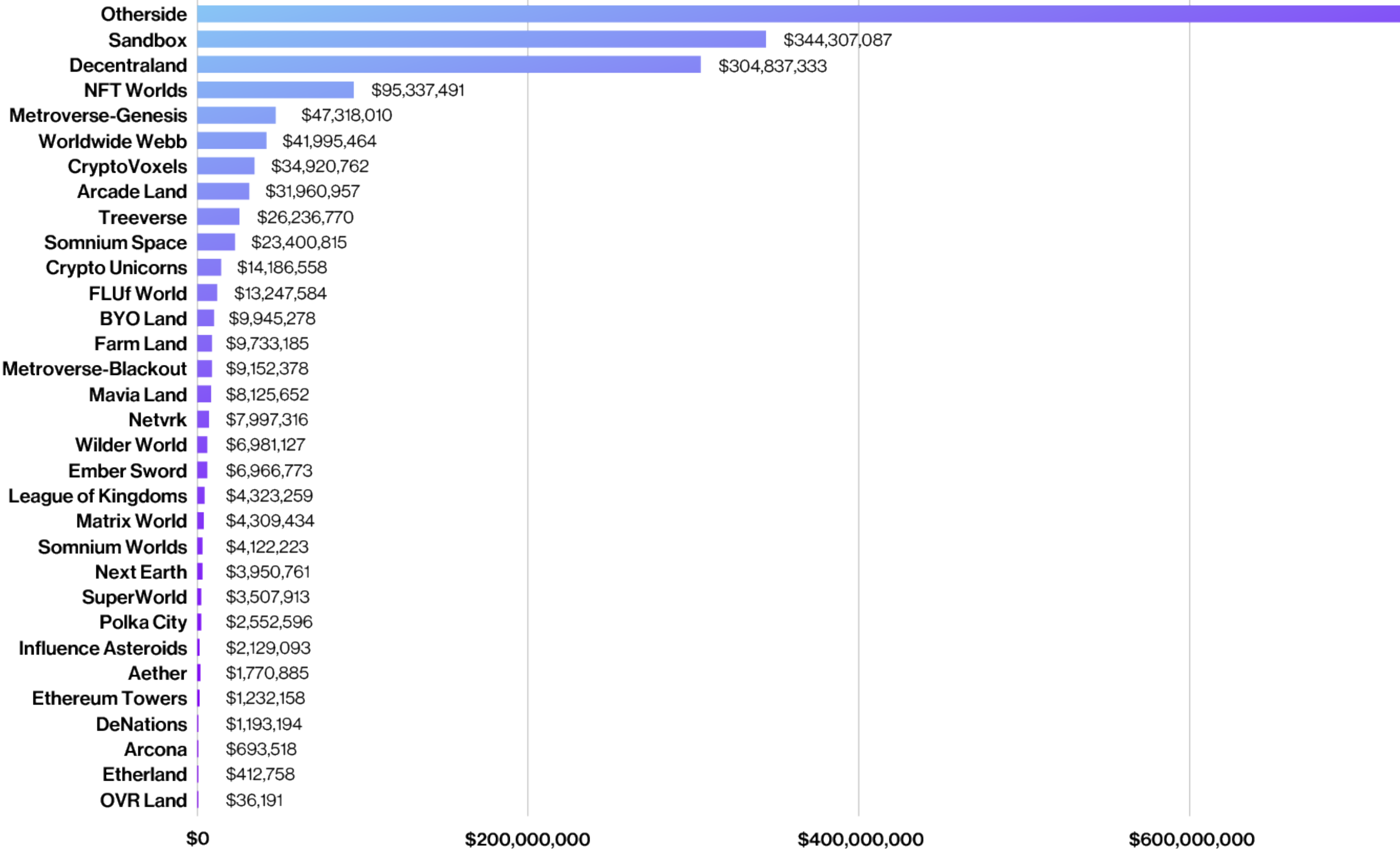


of crypto wallet activity comes from games



live web3 games with more than 1K unique on-chain users

Metaverse Land—Secondary Sales



Interest in the metaverse has exploded, with land sales totaling nearly \$2 billion

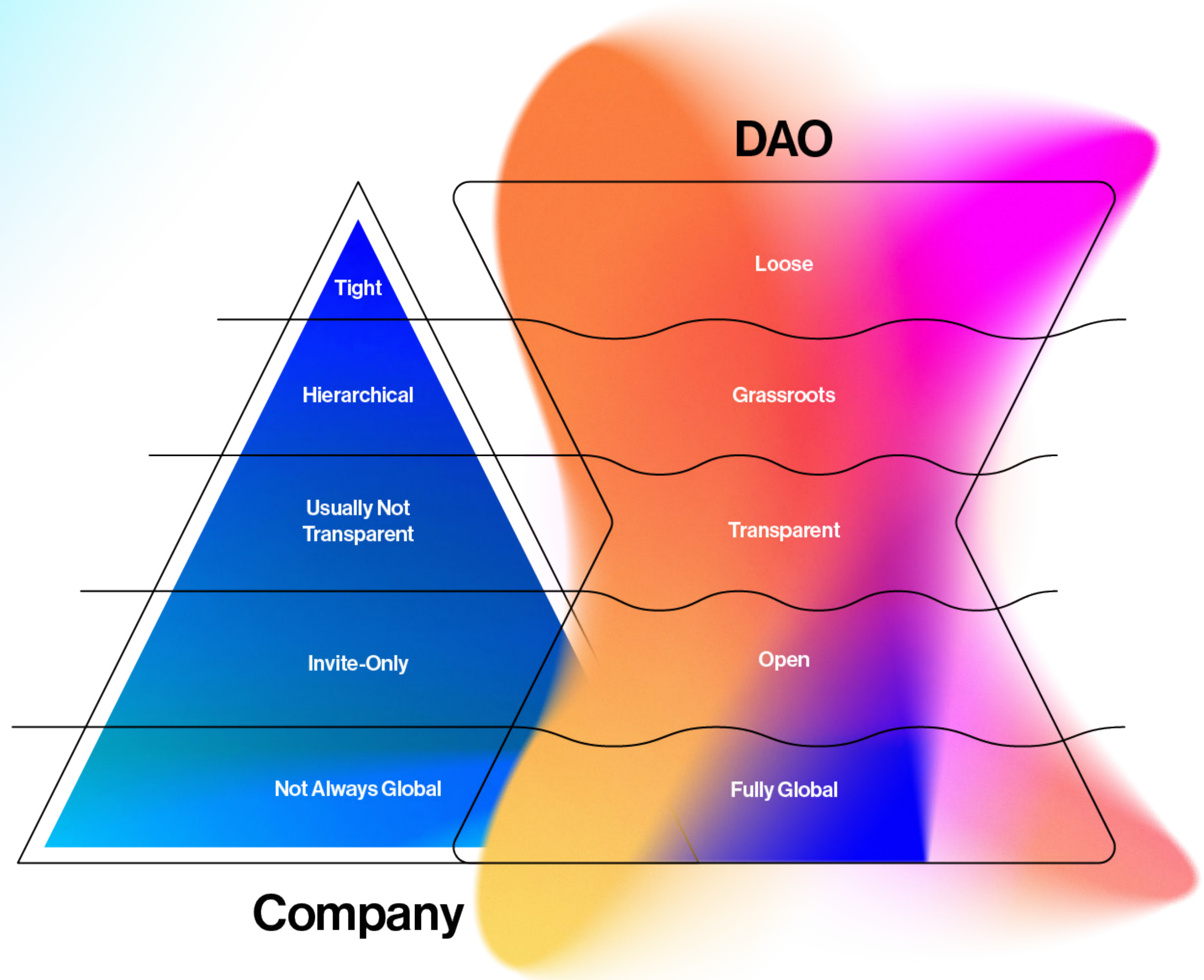
Metaverse Land Sales
\$1,808,580,704

Source: <https://dune.xyz/metaland/Metaverse-Land-Community>
 Data is as of 5/12/2021.

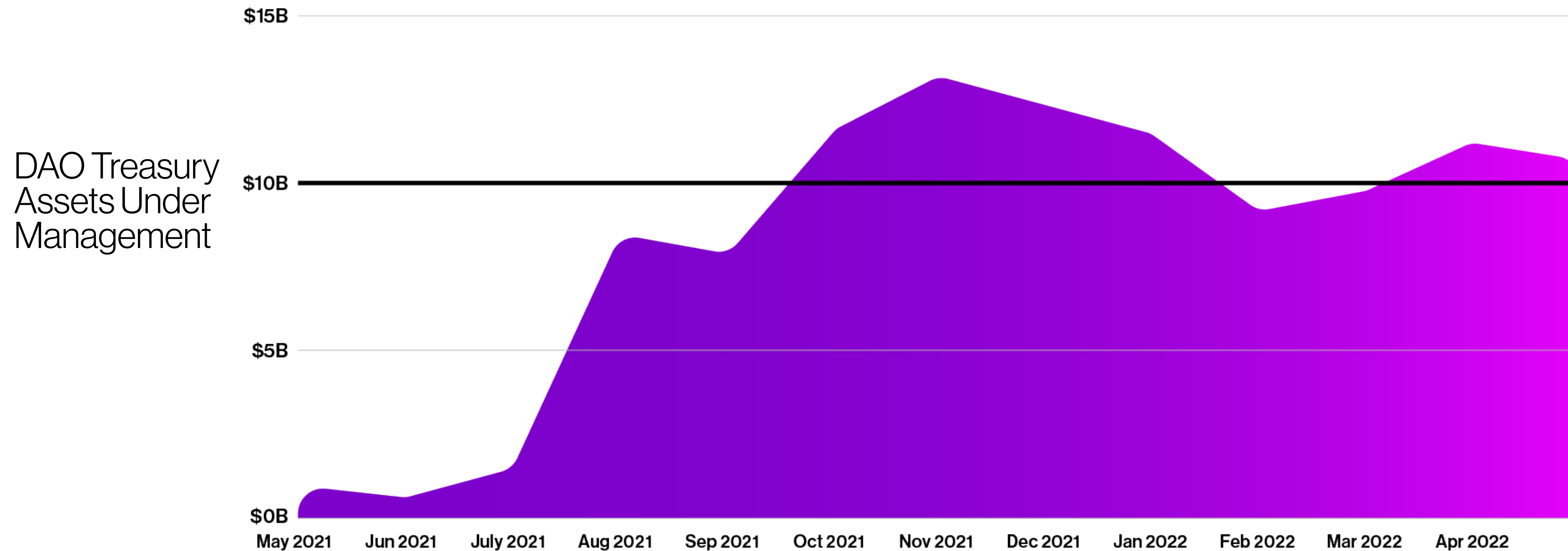
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DAOs

DAOs are providing a path toward community governance of any kind of organization

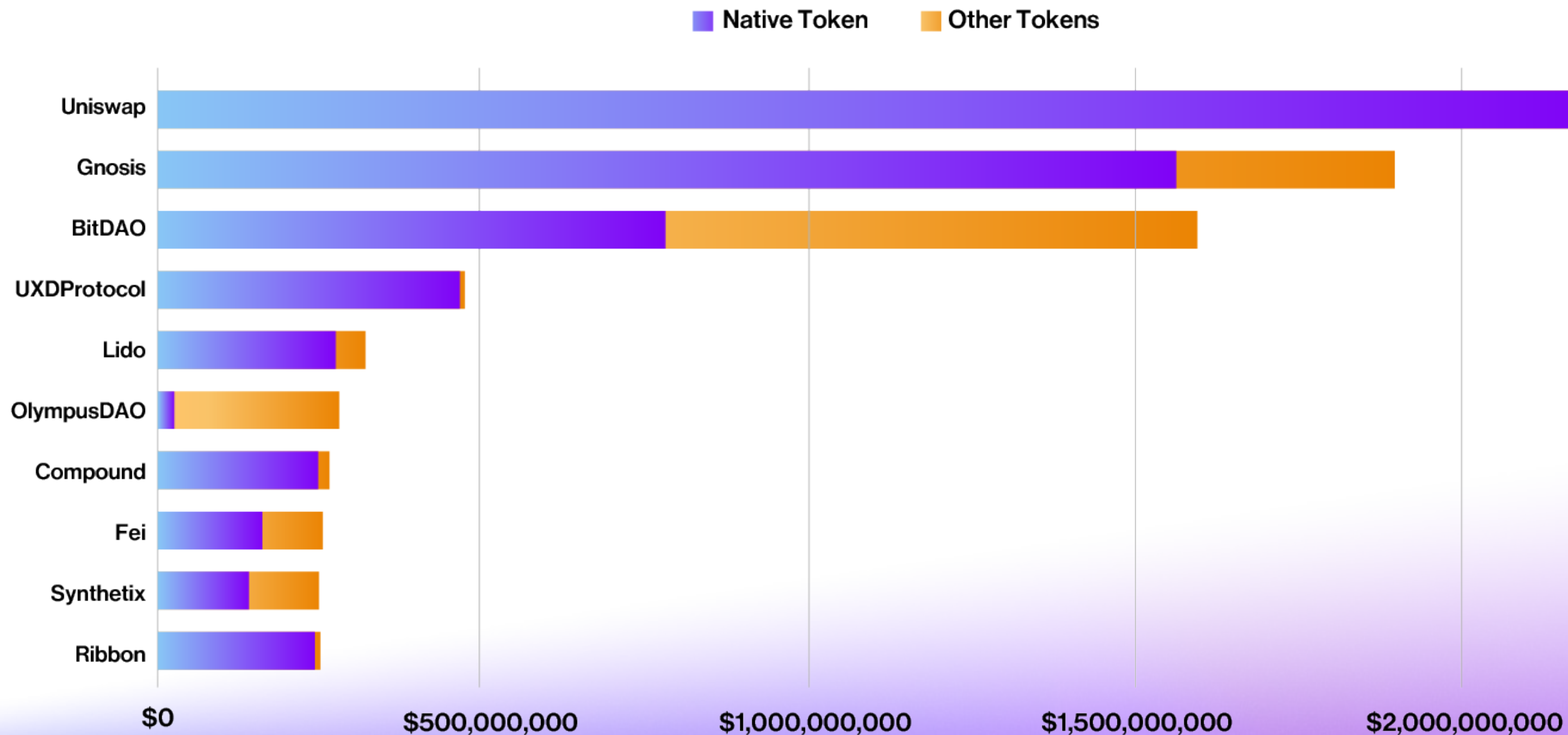


DAOs have accumulated *more than \$10 billion* in treasury assets under management



A large majority of value held by DAOs is in the form of the *protocol's native governance token*

Top 10 DAOs by Treasury Size



DAOs

50

Source: <https://deepdao.io/>;
Data is as of 5/12/2022.

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DAOs enable *a new, bottom-up way* for groups to make decisions

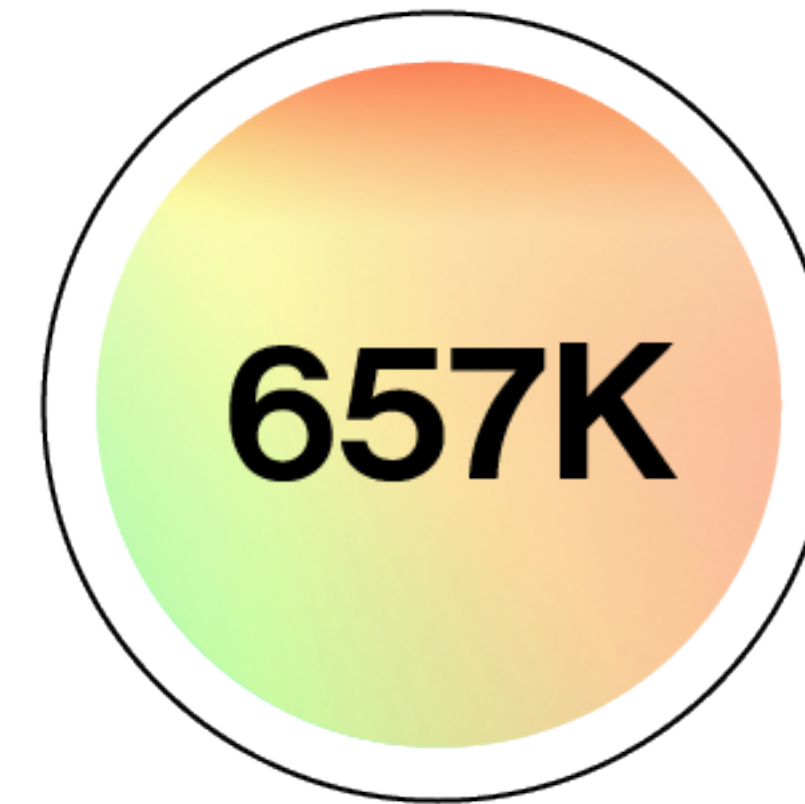
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Decisions Made



Total Votes



**Active Voters and
Proposal Makers**

**Closing
*Thoughts***

Crypto is already making a *real world impact*



01.

Today, there is vast untapped lending potential in emerging markets. Goldfinch expands access to capital using crypto to truly empower financial inclusion.

02.

Traditional web services rely on trusted intermediaries (Facebook, Google) to manage their users' digital identities. With Spruce, users can control their own identity with an Ethereum account.

03.

The telecom industry is currently controlled by monopolies. Helium is building towards a future where network coverage becomes a commodity, fueled by competition, available anywhere in the world, at a fraction of current costs.

04.

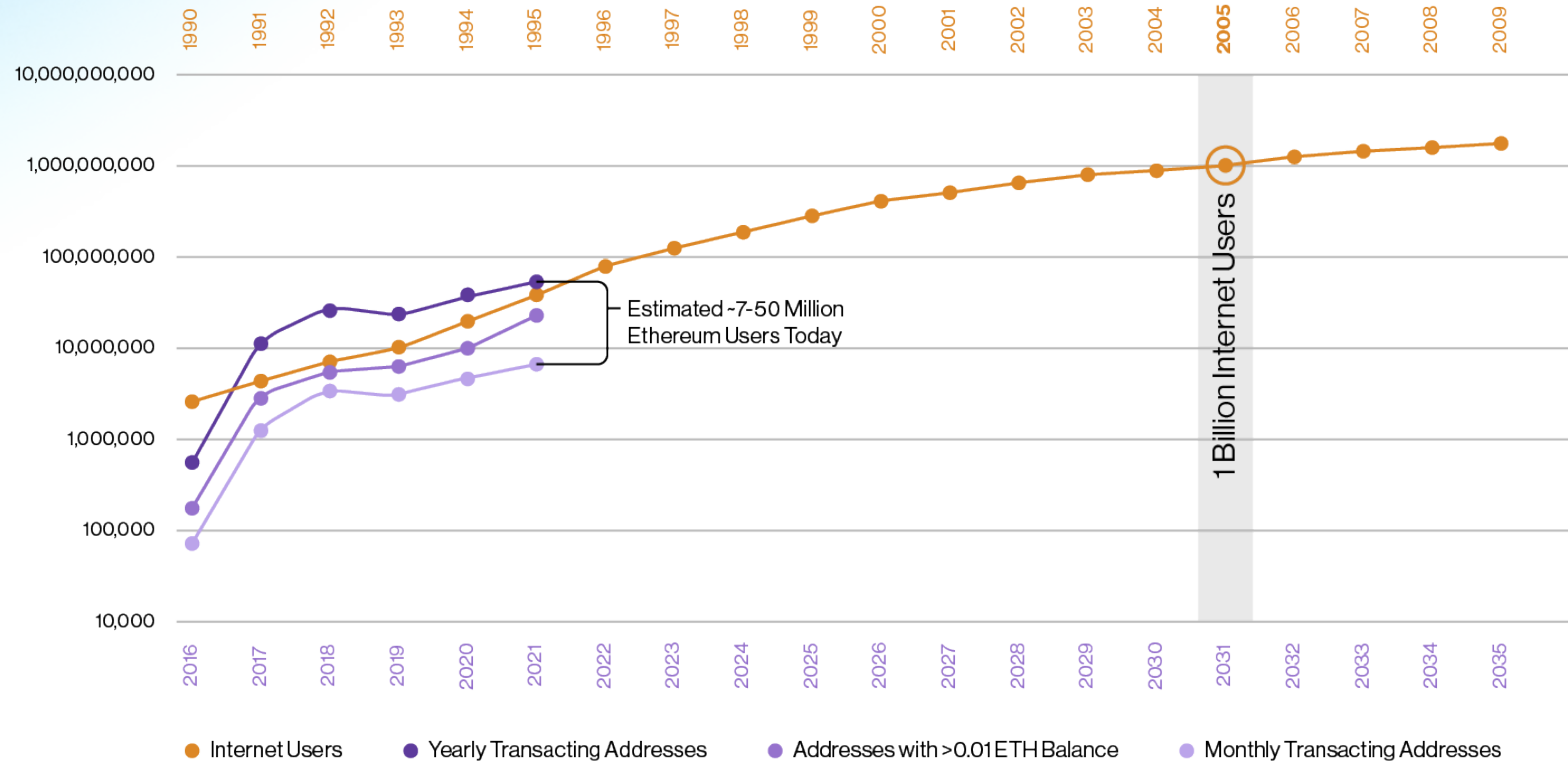
Only 15,000 musicians on streaming services (less than 0.2%) make more than \$50K/year. Sound cuts out the middlemen, allowing artists to monetize directly from their fans.

05.

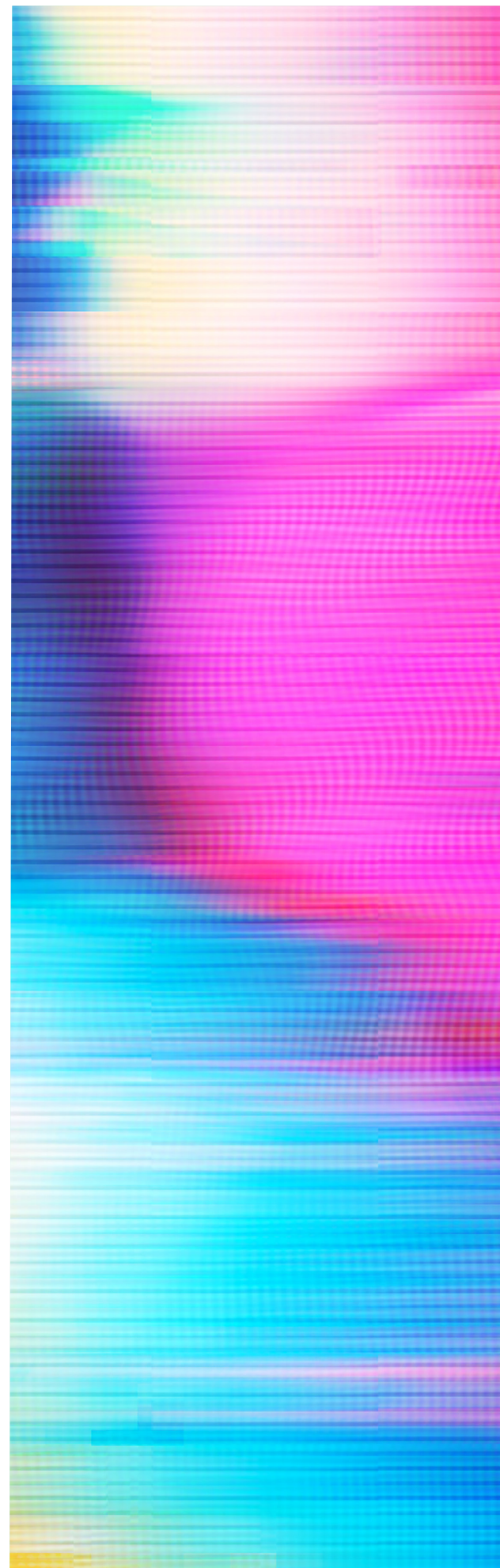
The voluntary carbon market lacks liquidity, accessibility, and price transparency. Flowcarbon is leveraging blockchain tech to scale climate change solutions.

**It is still
early days
for web3**

Internet Users vs. Ethereum Addresses (Log Scale)



What's next for web3?



01.	02.	03.	04.	05.
<p>Web3 infrastructure will continue to improve, with the continued improvement and growth of non-Ethereum L1s and Ethereum L2s. The Ethereum merge will hopefully happen this year. This will improve performance and also remove the environmental objection to using Ethereum.</p>	<p>Expect many more creators to embrace NFTs in their own communities as they discover how much better they can monetize by selling digital goods directly to their fans vs banner ads and other web2 monetization methods.</p>	<p>Expect many web3 games to launch, developed by founders with backgrounds at top game studios. Some of these will launch in the coming months, others will take longer.</p>	<p>New web3 users who earn tokens through games and NFTs will likely choose to save those tokens in DeFi protocols vs tradfi banks given the better rates and user experience, growing the number of DeFi users.</p>	<p>Expect many more experiments with DAOs, social tokens, decentralized social networks, web3 media, and other emerging categories. Some of these might break out in the same way DeFi, NFTs and web3 games did.</p>

Source: <https://cdixon.mirror.xyz/CGrfc6YezvzWXuOEShNvh46y4H4XTQvgYXNkFaZG510>

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