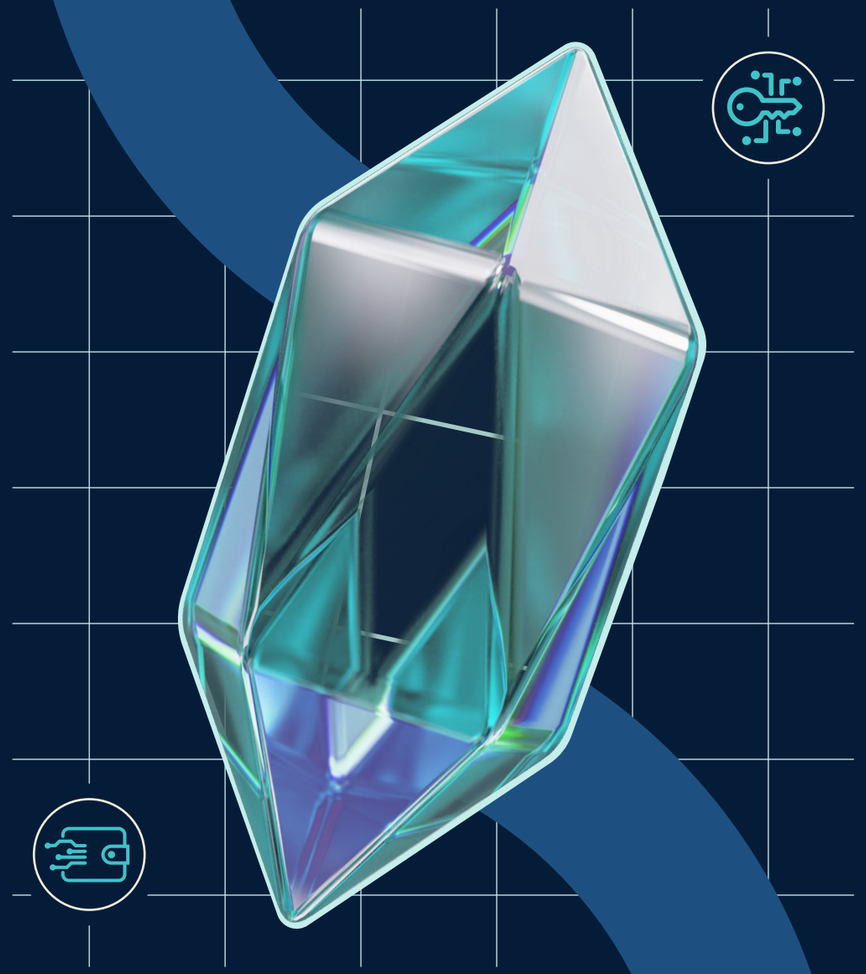
PitchBook

EMERGING TECH RESEARCH

# Crypto Report

VC trends and innovation spotlights

Q2
2024



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For previous updates as well as our complete crypto research, please see the designated analyst workspace on the PitchBook Platform.

# Vertical update

The crypto market faced a more challenging quarter as net inflows into spot bitcoin ETFs slowed to $2.5 billion, a stark contrast to the strong $12.1 billion inflow seen in Q1 following their US launch.[1] This deceleration contributed to an 11.9% QoQ decline in bitcoin's price, which in turn pulled the total crypto market capitalization down by 11.6% QoQ to just over $2.4 trillion. Despite this setback, the market cap remains up by 37.3% YTD. Interestingly, the historically strong positive correlation between the total crypto market cap and investments into private crypto startups appears to be weakening. Although crypto's market cap has reached 93% of its previous-cycle peak, venture capital investments are not expected to reach a similar level as the $29.4 billion invested in 2022. This may be more of a systematic symptom of the broader venture markets, which have remained slow and have yet to resemble the highs of 2021 and 2022.

In Q2, bitcoin also experienced its much-anticipated fourth halving, an event we view as potentially significant but not immediately transformative. Meanwhile, stablecoins continued their upward trajectory, with their total market cap increasing 7.2% QoQ to $160.9 billion.[2] Although this figure remains below the April 2022 peak of $187.9 billion, discounting the $18 billion of the failed algorithmic stablecoin TerraUSD reveals that the current circulating supply has indeed surpassed previous all-time highs. We anticipate that the total floating supply of stablecoins will exceed $200 billion by year-end.

## Crypto VC deal activity by quarter


Source: PitchBook • Geography: Global • *As of June 30, 2024

1: "Q2 2024 Review and Look Ahead," NYDIG, Greg Cipolaro, July 12, 2024.
2: "Stablecoins Market Cap," DefiLlama, n.d., accessed July 29, 2024.



## VERTICAL UPDATE

On the venture capital front, investment values have continued to increase on a quarterly basis, marking the third QoQ uptick in a row. We believe the recovery in publicly traded tokens, the maturing of the crypto sector, and continued institutional adoption will drive further VC funding. Similar to the past few quarters, blockchain infrastructure such as Layer 1s, scaling solutions, and staking/restaking remained areas with strong investor interest in Q2. We have yet to see significant investments in the application layer during this cycle. Farcaster, a Web3 app similar to the social platform X, raised $150.0 million during the quarter but so far has attracted mostly crypto-native users. As we saw two cycles ago with Coinbase, Circle, and Bakkt or last cycle with FTX, BlockFi, and Dapper Labs, we expect a large proportion of investments this cycle to go to applications serving non-crypto-native end users. Investors are understandably reticent to back crypto applications based on the outcomes of the last cycle. However, we believe that over an extended time horizon, the majority of the value within crypto will accrete to the applications. This will likely benefit long-term investors the most.

The backdrop to these market movements remains complex. Regulators worldwide, particularly in the US, are intensifying their oversight, evidenced by ongoing legal actions against major platforms such as Coinbase and Kraken. Despite recent challenges, we believe crypto and Web3 will continue to grow and evolve. The ecosystem has seen significant progress in recent years, including decentralized finance (DeFi) protocols facilitating trillions of dollars in transactions, stablecoins tokenizing hundreds of billions in fiat currency, and blockchains scaling to faster speeds than traditional payment rails. Yet the crypto industry is still in its early stages, and there is a lot of room for growth and innovation. Overall, the crypto market is not without risks and challenges, but with a greater focus on safety, security, and valuable use cases, along with prudent legislation, it has the potential to bring significant benefits to consumers, businesses, and institutions.

# Q2 2024 timeline

**April 1**

News

A federal judge denies Coinbase's motion to dismiss the lawsuit from the Securities and Exchange Commission (SEC), moving the case to discovery. While the judge agrees with Coinbase that its self-custody wallet does not make it a broker, she rejects other arguments against the SEC's securities classification. This case will now likely extend into the foreseeable future, and in an election year, it is unknown what could occur with changing administrations.

**April 30**

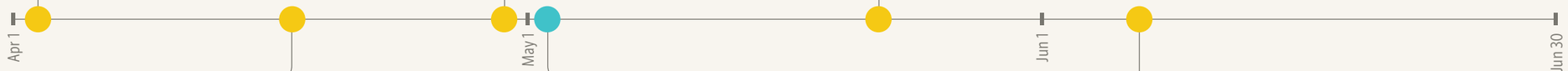
News

Changpeng Zhao, founder of Binance, is sentenced to four months in prison for failing to implement adequate anti-money laundering controls. Despite prosecutors seeking a longer sentence, Zhao negotiated a plea deal, agreeing to pay a $50 million fine. This outcome contrasts with the much harsher penalties faced by other crypto executives.

**May 22**

News

The US House of Representatives passes the Financial Innovation and Technology for the 21st Century Act, offering regulatory clarity for the crypto industry for the first time. The bill, which passes on a bipartisan basis, addresses the industry's need for clear operational guidelines and provides a path for decentralized projects. However, the Biden administration opposes the bill, citing potential regulatory gaps and investor risks. The legislation now moves to the Senate.




**April 20**

News

Bitcoin completes its fourth halving, which reduces the reward for mining new blocks by 50%. This halving occurs roughly every four years and decreases the rate at which new bitcoins are created, leading to increased scarcity and potentially higher prices.

**May 1**

VC deal

BlackRock leads a $47.0 million strategic funding round for Securitize, a blockchain firm specializing in tokenizing real-world assets that helped BlackRock launch its tokenized fund, BUIDL. This investment reflects BlackRock's growing involvement in the crypto space as it aims to drive innovation in capital markets infrastructure through blockchain technology.

**June 6**

News

Robinhood announces it will acquire crypto exchange Bitstamp for approximately $200 million. This strategic acquisition aims to enhance Robinhood's global crypto footprint and introduce its first institutional business.

## Q2 VC deal count summary

503
total deals

-12.5%
QoQ growth

4.6%
YoY growth

-3.1%
YTD growth

## Q2 VC deal value summary

$2.7B
total deal value

2.5%
QoQ growth

-9.8%
YoY growth

-11.7%
YTD growth



# Crypto landscape

1. Blockchain networks
2. Infrastructure & developer tools
3. Access
4. Web3
5. DeFi

# Crypto VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments. Click to view the full map on the PitchBook Platform.

## 1 Blockchain networks

### Bridges & interoperability

LayerZero. Polkadot AXELAR COSMIC WIRE Polyhedra

### Layer 1

APTOS LABS Ava Labs. Digital Asset MONAD Aleo

### Layer 2 & scalability

polygon Blockstream STARKWARE MatterLabs OPTIMISM

## 2 Infrastructure & developer tools

### Crypto corp management & finance

Pulley meow Utopia Labs CREATE

### Data storage & accessibility

JRI JRITSU RWA MachineFi gensyn INERY OASIS LABS

### Development platforms

FORTE consensys alchemy 趣链科技 Hyperchain F Figment

### Institutional services

CIRCLE Fireblocks BLOCKDAEMON anchorage digital FALCONX

### Node & validator management

marlin BLOXROUTE LABS Flashbots Espresso blocknative

### Security, risk management & compliance

Chainalysis CERTIK 通付盾 Pay Egis TRM Quantstamp

## 3 Access

### Asset management & taxes

TAXbit Swan ITRUSTCAPITAL Unchained CoinTracker

### Exchanges, wallets & crypto financial services

Blockchain.com AMBER bitpanda Bitso

### Onboarding & payments

AIKON. MoonPay LIGHTSPARK Astra Protocol LIGHTNET

### Research & data tools

Lukka TradeAlgo Kaiko smart data Nansen Dune

## 4 Web3

### Content & social

DeSo Farcaster ELUV.IO FREECHAT

### Decentralized communities

SYNDICATE FINANCIE COLONY TRIBUTE LABS

### DePINs & hardware

otoy IoTeX Circularr

### Enablement platforms & marketplaces

brave MVL Polymarket sentient Permission

### Metaverse & gaming

FENIX GAMES EVERYREALM animoca BRANDS

### NFT platforms & collectibles

Dapper Labs OpenSea Autographs MAGIC EDEN FanCraze

## 5 DeFi

### Asset tokenization

Flowcarbon Sommelier 소유 Hamsa CLIMATE TRADE

### Insurance

re meanwhile cozy NEPTUNE MUTUAL

### Lending, borrowing & yield generation

LIDO Babylon 0x CREDIX MetaStreet

### Trading, derivatives & liquidity

1inch ByteTrade PORTAL bluefin HASHFLOW



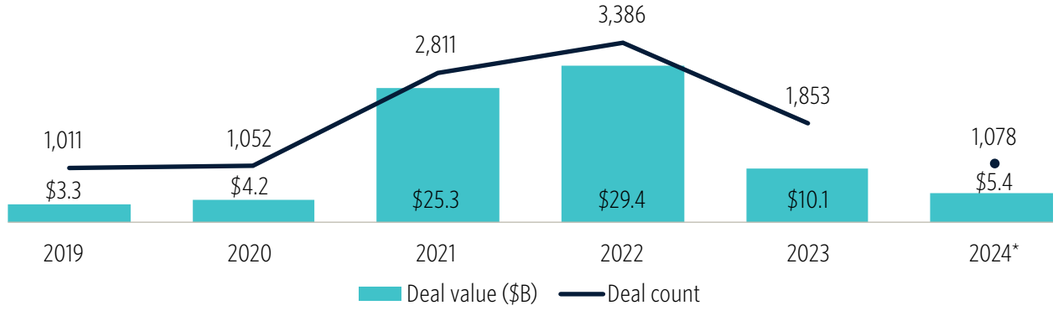
 

# VC activity

In Q2 2024, crypto fundraising increased slightly as startups secured $2.7 billion across 503 deals. This represents a 2.5% increase in invested capital but a 12.5% decline in deal volume compared with the previous quarter. The increasing deal value yet lower deal count suggests that deal sizes increased overall during the quarter. With positive investor sentiment returning to crypto and barring any major market downturns, we expect the volume and pace of investments to continue increasing throughout the year. Infrastructure startups continued to lead the way in funding during the quarter, with the largest rounds raised by parallelization Layer 1 platform Monad ($225.0 million Series A), DeFi-specific Layer 1 platform Berachain ($100.0 million Series B), and bitcoin restaking platform Babylon ($70.0 million early-stage round). The other two mega-rounds of the quarter went to Farcaster, which raised a $150.0 million Series A round at a $1.0 billion post-money valuation, and to blockchain-based gaming platform Zentry, which raised a $140.0 million early-stage round.

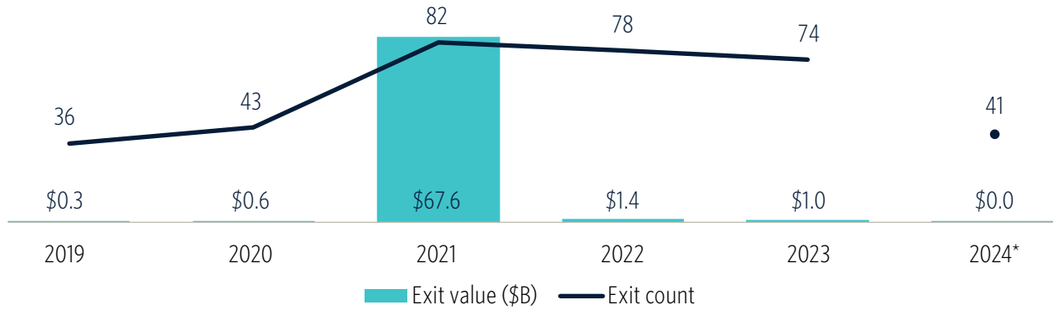
Compared with full-year 2023, valuations were up for the seed stage and the early stage yet were down for the late stage. The median pre-money valuation for the seed stage was $23.0 million; the early stage, $63.8 million; and the late stage, $40.8 million, representing changes of +97.0%, +166.0%, and -36.0%, respectively, from full-year 2023. These numbers indicate that investment rounds have become highly competitive at the earlier stages but less so at the late stage. This trend is on par with the broader venture market. Deal sizes also reflected the valuation trends, with median figures registering at $2.8 million for the seed stage, $4.5 million for the early stage, and $6.5 million for the late stage, representing changes of +27.3%, +13.3%, and -7.4%, respectively, from full-year 2023.

## Crypto VC deal activity




Source: PitchBook • Geography: Global • *As of June 30, 2024

## Crypto VC exit activity




Source: PitchBook • Geography: Global • *As of June 30, 2024

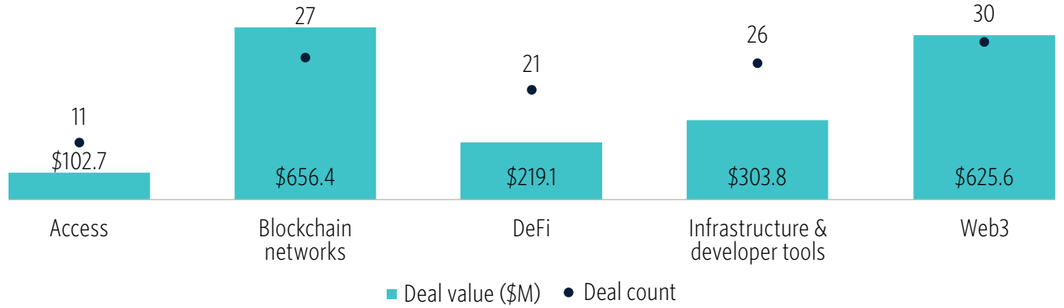


## VC ACTIVITY

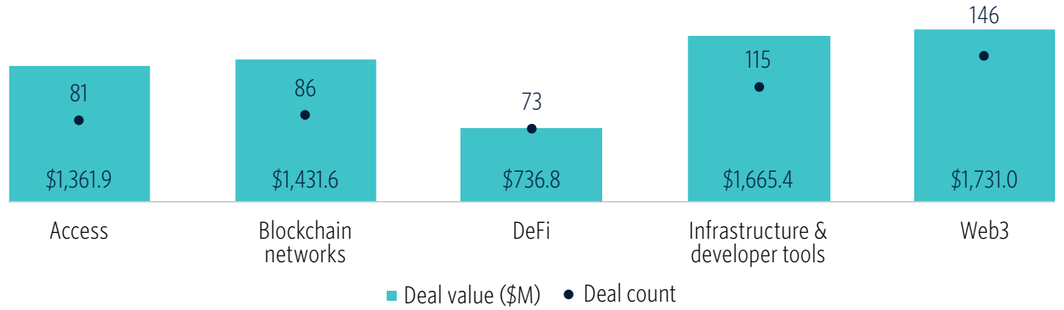
On the exits front, Q2 saw a jump in the number of exits with a total of 26, the most in a quarter since Q1 2022. Notable exits during the quarter include the acquisition of wallet infrastructure Bitski by Solana wallet Phantom. Bitski previously raised $31.7 million across two VC rounds and was last valued at $79.0 million. DeFi infrastructure developer Skolem was acquired by Talos, via its financial sponsor TenSquared, through an LBO. Skolem previously raised over $21 million across two VC rounds. During the quarter, Robinhood also announced the $200 million acquisition of Bitstamp, although the deal was not included in our Q2 2024 data because it is expected to close sometime in early 2025. The positive exit environment during the quarter could likely extend throughout 2024, and we expect more consolidation among cryptocurrency exchanges, custodians, and infrastructure providers as the market matures and smaller players seek strategic exits.

### Q2 2024 crypto VC deal activity by segment*



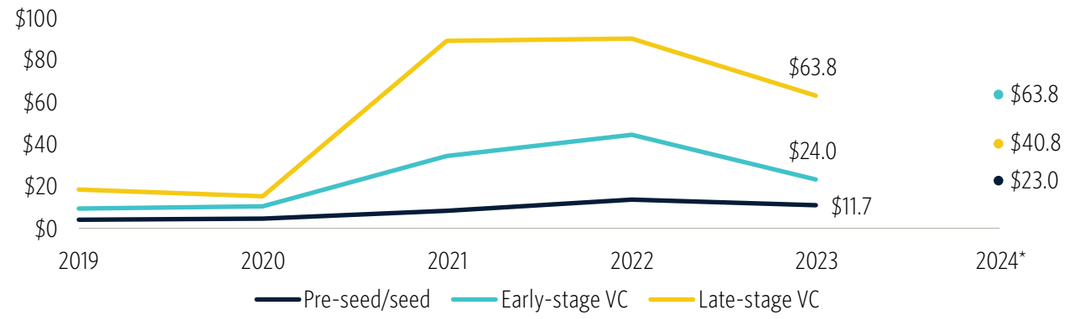

Source: PitchBook • Geography: Global • *As of June 30, 2024

### Trailing 12-month crypto VC deal activity by segment*



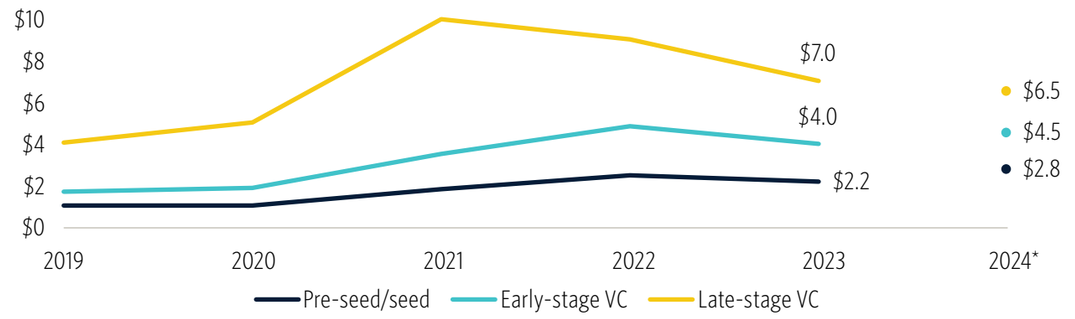

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Median crypto VC pre-money valuation ($M) by stage



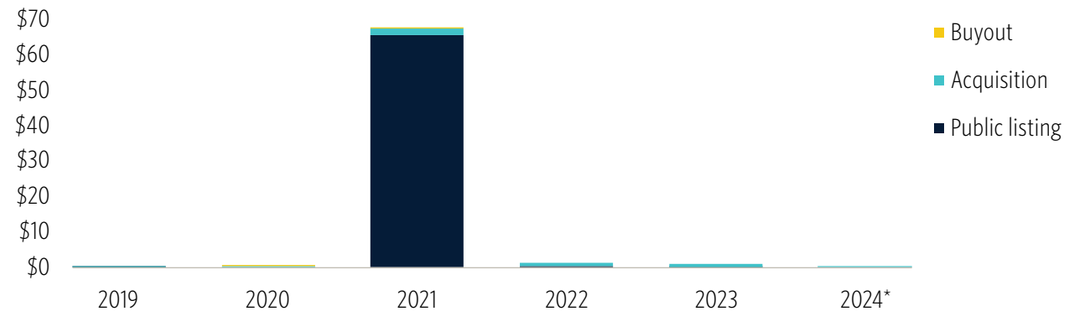

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Median crypto VC deal value ($M) by stage



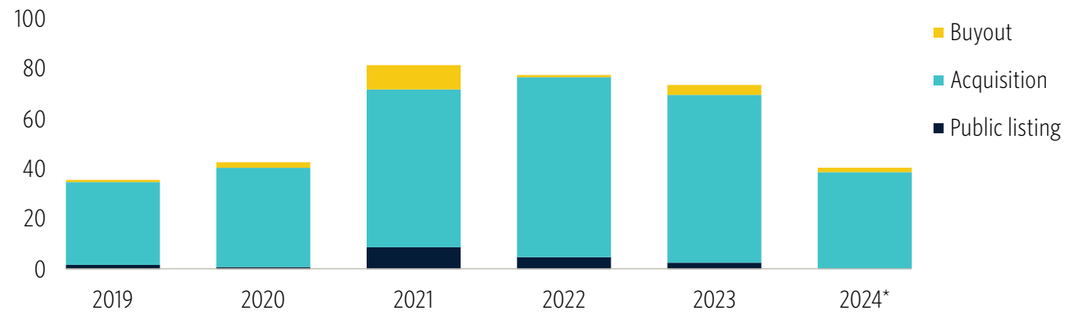

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Crypto VC exit value ($B) by type




Source: PitchBook • Geography: Global • *As of June 30, 2024

## Crypto VC exit count by type




Source: PitchBook • Geography: Global • *As of June 30, 2024

## Key crypto pre-seed/seed deals in Q2 2024*

| Company | Close date | Deal value ($M) | Segment | Category | Post-money valuation ($M) | Lead investor(s) |
|---|---|---|---|---|---|---|
| Arbelos Markets | May 8 | $56.0 | Infrastructure & developer tools | Institutional services | N/A | Dragonfly Capital |
| MegaETH | June 27 | $20.0 | Blockchain networks | Layer 2 & scalability | N/A | Dragonfly (San Francisco) |
| Morph | May 14 | $19.3 | Blockchain networks | Layer 2 & scalability | N/A | Dragonfly (San Francisco) |
| Lagrange | May 8 | $13.2 | Blockchain networks | Layer 2 & scalability | N/A | Founders Fund |
| Sortium | April 10 | $12.0 | Infrastructure & developer tools | Development platforms | $50.0 | Signum Growth Capital |
| Agora | April 2 | $12.0 | Infrastructure & developer tools | Institutional services | N/A | Dragonfly (San Francisco) |
| LightLink | June 6 | $11.5 | Blockchain networks | Layer 2 & scalability | N/A | Magnolia Quality Development Corporation, T&B Media Global |
| Botanix Labs | May 7 | $11.5 | Blockchain networks | Layer 2 & scalability | N/A | N/A |
| Fintopio | April 17 | $10.0 | Access | Exchanges, wallets & crypto financial services | N/A | N/A |
| GaiaNet | May 28 | $10.0 | Web3 | DePINs & hardware | N/A | N/A |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Key crypto early-stage VC deals in Q2 2024*

| Company | Close date | Deal value ($M) | Segment | Category | Post-money valuation ($M) | Lead investor(s) |
|---|---|---|---|---|---|---|
| Monad Labs | April 9 | $225.0 | Blockchain networks | Layer 1 | $3,000.0 | Paradigm (Crypto Fund) |
| Farcaster | May 21 | $150.0 | Web3 | Content & social | $1,000.0 | Paradigm |
| Zentry | April 24 | $140.0 | Web3 | Metaverse & gaming | N/A | N/A |
| Berachain | May 18 | $100.0 | Blockchain networks | Layer 1 | N/A | Brevan Howard Asset Management, Framework Ventures |
| Babylon | May 30 | $70.0 | DeFi | Lending, borrowing & yield generation | N/A | Bullish Capital, Paradigm (Crypto Fund), Polychain Capital |
| Sophon | April 1 | $60.0 | Web3 | Metaverse & gaming | N/A | Maven 11, Paper Ventures |
| Avail | June 4 | $43.0 | Blockchain networks | Layer 1 | N/A | Dragonfly (San Francisco), Founders Fund |
| TradeAlgo | June 6 | $41.8 | Access | Research & data tools | N/A | N/A |
| Movement Labs | April 25 | $38.0 | Blockchain networks | Layer 2 & scalability | N/A | Polychain Capital |
| Conduit | June 26 | $37.0 | Blockchain networks | Layer 2 & scalability | $220.0 | Haun Ventures, Paradigm (Crypto Fund) |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Key crypto late-stage VC deals in Q2 2024*

| Company | Close date | Deal value ($M) | Segment | Category | Post-money valuation ($M) | Lead investor(s) |
|---|---|---|---|---|---|---|
| Tradedog Market Maker | June 26 | $75.0 | Infrastructure & developer tools | Institutional services | N/A | Anthony Scaramucci, Blockchain Founders Fund |
| Space Nation | May 11 | $50.0 | Web3 | Metaverse & gaming | N/A | N/A |
| IoTeX | April 2 | $50.0 | Web3 | DePINs & hardware | N/A | N/A |
| Polymarket | May 14 | $45.0 | Web3 | Enablement platforms & marketplaces | N/A | Founders Fund, Vitalik Buterin |
| The Sand Box | June 6 | $20.0 | Web3 | Metaverse & gaming | $1,000.0 | Animoca Brands, Ash Park Capital |
| XREX | June 5 | $18.8 | Access | Exchanges, wallets & crypto financial services | N/A | N/A |
| Centrifuge | April 17 | $15.0 | DeFi | Lending, borrowing & yield generation | N/A | Greenfield Capital, ParaFi Capital |
| Hypersonic Laboratories | June 24 | $10.9 | Web3 | Metaverse & gaming | $34.9 | Play Ventures |
| Uplink | April 11 | $10.0 | Web3 | DePINs & hardware | N/A | Framework Ventures |
| Interlay | April 4 | $10.0 | DeFi | Lending, borrowing & yield generation | N/A | N/A |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Key crypto VC exits in Q2 2024*

| Company | Close date | Exit value ($M) | Segment | Post-money valuation ($M) | Exit type | Acquirer(s) |
|---|---|---|---|---|---|---|
| 3iQ | April 23 | $39.0 | Infrastructure & developer tools | $39.0 | M&A | Monex Group |
| Mint.fun | May 7 | N/A | Web3 | N/A | M&A | Zora Network |
| Finger Labs | April 8 | N/A | Web3 | N/A | M&A | Hypercorporation |
| Multis | April 18 | N/A | Infrastructure & developer tools | N/A | M&A | Safe |
| Blocktorch | June 18 | N/A | Infrastructure & developer tools | N/A | M&A | thirdweb |
| Elephants | May 17 | N/A | Web3 | N/A | M&A | Splint Invest |
| Rio Network | June 10 | N/A | Blockchain networks | N/A | M&A | EigenLayer |
| Unstoppable Finance | April 22 | N/A | Access | N/A | M&A | Jupiter (Financial Software) |
| LAYZR | June 5 | N/A | Web3 | N/A | M&A | Jodel |
| Leverade | April 18 | N/A | Web3 | N/A | M&A | Clupik |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Top strategic acquirers of crypto companies since 2019*

| Investor | Deal count | Investor type |
|---|---|---|
| Coinbase | 12 | Corporation |
| Binance | 10 | VC-backed company |
| Kraken | 10 | VC-backed company |
| ConsenSys | 8 | VC-backed company |
| WonderFi Technologies | 7 | Corporation |
| Celsius Network | 6 | PE-backed company |
| Animoca Brands | 6 | PE-backed company |
| Gemini | 5 | VC-backed company |
| Ripio | 4 | VC-backed company |
| New World Solution | 4 | Corporation |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Top VC investors in crypto companies since 2019*

| Investor | Deal count | Pre-seed/ seed | Early-stage VC | Late-stage VC | Venture growth | Investor type |
|---|---|---|---|---|---|---|
| Coinbase Ventures | 402 | 149 | 218 | 29 | 6 | CVC |
| NGC Ventures | 281 | 106 | 157 | 17 | 1 | VC |
| Shima Capital | 277 | 136 | 128 | 13 | 0 | VC |
| AU21 Capital | 262 | 112 | 139 | 11 | 0 | VC |
| Hashkey Capital | 243 | 91 | 131 | 21 | 0 | VC |
| Big Brain Holdings | 235 | 112 | 113 | 9 | 1 | VC |
| LD Capital | 218 | 101 | 109 | 8 | 0 | VC |
| Exnetwork Capital | 210 | 84 | 118 | 8 | 0 | VC |
| Binance Labs | 197 | 64 | 117 | 11 | 5 | VC |
| Polychain Capital | 191 | 79 | 93 | 19 | 0 | VC |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Top VC-backed crypto companies by total VC raised to date*

| Company | VC ($M) raised to date | Segment | Category | IPO probability | M&A probability | No exit probability | HQ location |
|---|---|---|---|---|---|---|---|
| eToro | $1,671.4 | Access | Exchanges, wallets & crypto financial services | 93% | 5% | 2% | London, UK |
| Blockchain.com | $1,166.5 | Access | Exchanges, wallets & crypto financial services | 88% | 10% | 2% | London, UK |
| Circle | $1,114.0 | Infrastructure & developer tools | Institutional services | 82% | 16% | 2% | Boston, US |
| Fireblocks | $1,037.9 | Infrastructure & developer tools | Institutional services | 83% | 15% | 2% | New York, US |
| Forte | $952.0 | Infrastructure & developer tools | Development platforms | 89% | 9% | 2% | San Francisco, US |
| Improbable | $866.5 | Web3 | Metaverse & gaming | 92% | 3% | 5% | London, UK |
| Sorare | $774.5 | Web3 | NFT platforms & collectibles | 20% | 60% | 20% | Saint-Mandé, France |
| ConsenSys | $733.0 | Infrastructure & developer tools | Development platforms | 96% | 2% | 2% | New York, US |
| Dapper Labs | $643.4 | Web3 | NFT platforms & collectibles | 97% | 1% | 2% | Vancouver, Canada |
| Amber Group | $630.2 | Access | Exchanges, wallets & crypto financial services | 81% | 17% | 2% | N/A |

Source: PitchBook • Geography: Global • *As of June 30, 2024

*Note: Probability data is based on PitchBook VC Exit Predictor methodology.*

# Innovation spotlights

**Decentralized GPU networks**

A crucial solution for AI's growing computational challenges

**Liquidity pools**

Fundamental technology to enhance capital efficiency and accessibility

# Decentralized GPU networks

With the explosion of AI, the demand for computing resources has surged dramatically. This is particularly true for training large-scale AI models, where the availability of computational power represents one of the most significant bottlenecks. AI training and inference require specialized clusters of GPUs connected by high-bandwidth networks, which today are provided and controlled primarily by the hyperscalers (such as Amazon Web Services, Azure, and Google Cloud), leading to high costs and limited accessibility. As firms work toward achieving artificial general intelligence (AGI), the need for greater computational resources will intensify. Training models with tens of trillions of parameters and performing inference on these models will require unprecedented computational resources.[3]

GPUs, originally designed for rendering graphics, have become essential for AI due to their parallel processing capabilities. Over the past decade, GPUs have evolved to include specialized components such as tensor cores, which are optimized for AI workloads. Today's GPUs, such as NVIDIA's A100 and H100 and its latest Blackwell, are highly optimized for both training and inference. These GPUs support popular AI frameworks such as TensorFlow and PyTorch, making them indispensable for AI development. Despite their power, the costs associated with these GPUs remain a significant barrier for many organizations. Training AI models on large datasets is currently resource-intensive and costly. To illustrate, training a 1-trillion-parameter GPT-style model requires approximately 120 million exaflops of computation.[4] Based on our calculation, this equates to roughly 3.3 years of computation on 10,000 NVIDIA A100 GPUs. Inference, while less computationally demanding than training, still requires significant resources, especially with high usage demands over time. Such costly high-performance computing resources are often inaccessible to AI startups or research institutions.

With this, there has been an emergence of decentralized GPU networks to help alleviate the resource constraints in AI. These networks, part of the broader decentralized physical infrastructure network (DePIN) segment within crypto, are blockchain-based marketplaces where participants can share and monetize their unused GPU resources. Decentralized GPU networks use token incentives to attract and build GPU supply, providing a decentralized, scalable, and cost-effective solution for accessing high-performance computing power. The key benefits promised by these networks are:

- **Cost efficiency:** Utilizing idle GPU resources is cheaper than utilizing traditional cloud providers.
- **Scalability:** The decentralized nature allows these networks to scale as more participants join.
- **Security:** Reducing data transfer to central locations enhances data security.
- **Accessibility:** Access to high-performance computing is democratized for a wider range of users.

Protocols such as Aethir and Gensyn—which we profiled in a previous note—are scaling decentralized GPU networks to support the growing demand for computing power. Aethir is a decentralized GPU cloud infrastructure addressing the high demand for GPU resources in AI, cloud gaming, and edge computing. Its protocol leverages a network of decentralized devices, from high-performance servers in T3/T4 datacenters to individual computers, providing scalable and cost-effective GPU computing power. Central to Aethir's ecosystem are checker nodes, which

3: Parameter estimates to achieve AGI range from 10 to 100 trillion.
4: "Optimizing Distributed Training on Frontier for Large Language Models," arXiv, Sajal Dash, et al., December 21, 2023.

validate the network's operations, ensuring high standards of uptime, latency, and service quality. The nodes were distributed in a tiered sale earlier in 2024, with over 66,000 sold and deployed. It was reported that Aethir earned $146 million in the node sale from buyers including NVIDIA, Supermicro, Hewlett Packard Enterprise, and Foxconn.[5]

Aethir's $ATH token incentivizes participation and supports network governance, rewarding node operators and checkers. Aethir has quickly expanded its service offerings, including infrastructure-as-a-service, platform-as-a-service, and bare-metal solutions, catering to a wide range of client needs. Aethir plans to introduce Aethir Edge, a hardware device to further decentralize GPU power. With over $36 million in annual recurring revenue and a growing community of 170,000 members,[6] Aethir could be well positioned to become one of the leading decentralized GPU networks.

Although it is not exactly a pure-play decentralized GPU network, we also view Filecoin as a key player. The protocol is a decentralized cloud network that offers significant potential for addressing the resource constraints faced in AI training and inference. By leveraging a distributed network of storage providers and GPU resources, Filecoin has created a decentralized infrastructure for computing power. This approach reduces costs by utilizing excess storage and GPU capacity from various contributors, providing a scalable and flexible alternative to traditional centralized cloud providers. The compute-over-data capabilities of Filecoin enable local data processing, minimizing latency and improving efficiency, which is crucial for training AI models on large datasets.[7] The economic model of Filecoin, driven by token incentives, encourages wide participation, thus increasing the available resources for AI training. This decentralized setup not only reduces costs but also enhances security through verifiable storage, ensuring data integrity. Furthermore, it fosters collaboration among diverse participants, driving innovation and enabling smaller players to contribute to AI advancements. This scalable, cost-effective, and secure solution holds promise for revolutionizing the AI training landscape by providing abundant and accessible compute resources.

Despite the promising potential of decentralized GPU networks, significant challenges remain, particularly in optimizing resource allocation and efficiency. Research shows that new scheduling algorithms are key to efficiently distributing computational tasks across decentralized resources.[8] These advanced methods use complex techniques to ensure data is processed smoothly and communication costs are balanced. Additionally, strategies to handle communications and computations simultaneously are crucial for reducing delays and improving overall efficiency. However, the software needed to support these advancements is still being developed and needs more work to be fully effective.

We believe that the growth of decentralized GPU networks will continue to accelerate, likely driven by new open-source AI frameworks and an upcoming proliferation of video generative AI models. As these models become more prevalent, the need for scalable and cost-effective GPU resources will rise, positioning decentralized networks as a critical solution. Moreover, we anticipate a shift toward edge computing, where computational tasks are moved closer to the data source. This trend will be accelerated by advancements in mobile devices and other edge technologies, making high-performance computing more accessible and reducing latency.

5: "Aethir Launches Decentralized Cloud Network on Ethereum Mainnet," Cointelegraph, Josh O'Sullivan, June 12, 2024.
6: "Unveiling Aethir's Core Business and Annual Revenue," Aethir, July 16, 2024.
7: "The Next Frontier in Cloud Computing: Decentralization as a Catalyst for Disruption," Franklin Templeton, Mahesh Ramakrishnan, Christopher Jensen, and Jorge Tamayo, July 2024.
8: "Decentralized Training of Foundation Models in Heterogeneous Environments," arXiv, Binhang Yuan, et al., June 21, 2023.

## Select VC-backed decentralized GPU networks*

| Company | HQ location | Year founded | Total raised ($M) | Latest deal date | Latest deal type | Latest deal value ($M) |
|---|---|---|---|---|---|---|
| OTOY | Los Angeles, US | 2008 | $98.0 | N/A | Late-stage VC | $38.9 |
| Gensyn | London, UK | 2020 | $51.1 | June 12, 2023 | Seed | $42.4 |
| io.net | New York, US | 2019 | $35.0 | March 5, 2024 | Late-stage VC | $33.0 |
| Aethir | Singapore | 2021 | $32.0 | March 1, 2024 | N/A | $32.0 |
| Oort | Austin, US | 2018 | $24.7 | January 5, 2024 | Late-stage VC | $10.0 |
| Raiinmaker | Sheridan, US | 2018 | $12.5 | April 3, 2024 | N/A | $7.5 |
| Clique | Stanford, US | 2021 | $11.0 | March 14, 2024 | Early-stage VC | $8.0 |
| Fluence Network | Hong Kong | 2017 | $11.0 | February 16, 2022 | Series A | $9.0 |
| aleph.im | Paris, France | 2018 | $10.0 | N/A | Early-stage VC | $10.0 |
| Spheron Network | Bengaluru, India | 2020 | $8.3 | December 20, 2023 | Early-stage VC | $7.0 |

Source: PitchBook • Geography: Global • *As of June 30, 2024

## Select VC-backed decentralized GPU networks (continued)*

| Company | HQ location | Year founded | Total raised ($M) | Latest deal date | Latest deal type | Latest deal value ($M) |
|---|---|---|---|---|---|---|
| Expanso | Seattle, US | 2023 | $7.5 | May 16, 2024 | Early-stage VC | $7.5 |
| Prime Intellect | Dover, US | 2023 | $5.5 | April 23, 2024 | N/A | $5.5 |
| Akash Network | San Francisco, US | 2015 | $3.3 | February 1, 2024 | N/A | $2.0 |
| Lumino | San Mateo, US | 2023 | $2.8 | N/A | N/A | $2.8 |
| Nosana | Amsterdam, Netherlands | 2021 | $1.7 | January 18, 2022 | N/A | $1.7 |
| Koii | Toronto, Canada | 2020 | $1.3 | February 1, 2024 | N/A | $1.2 |
| Hyperbolic Network | Irvine, US | 2022 | $7.7 | July 30, 2024 | Seed | $7.0 |
| AIOZ Network | Singapore | 2013 | N/A | June 1, 2023 | Secondary transaction - private | N/A |
| Exabits | San Mateo, US | 2021 | N/A | N/A | N/A | N/A |
| Golem Network | Zug, Switzerland | 2014 | N/A | N/A | N/A | N/A |

Source: PitchBook • Geography: Global • *As of June 30, 2024

# Liquidity pools

Liquidity pools are a foundational component of the DeFi ecosystem, offering a solution to the liquidity problems that decentralized exchanges (DEXs), borrowing and lending protocols, derivative markets, and many others face. Traditional financial systems rely on order books and market makers to provide liquidity, but these methods are not always practical in a decentralized context due to scalability issues. The introduction of automated market makers (AMMs), such as within Uniswap, marked a significant milestone by allowing users to lock their assets into a pool, enabling others to trade against this pool without the need for a direct counterparty. The concept of liquidity pools has evolved significantly since its inception. Initially, these pools were primarily used for simple token swaps. Over time, their functionality has expanded to include complex financial products such as derivatives, lending, and synthetic assets. Liquidity pools significantly benefit borrowing and lending protocols such as Aave and Maker. They provide a reservoir of assets that can be borrowed by users, enhancing the overall liquidity available in the system and ensuring that borrowers can always access the funds they need. Lenders deposit their assets into liquidity pools, and these pooled assets are then available for borrowing by other users, improving capital efficiency as funds are continuously utilized within the ecosystem.

Despite their numerous advantages, liquidity pools face several challenges. One of the most significant is impermanent loss, a risk that occurs when the price of pooled assets diverges substantially. This issue can result in liquidity providers (LPs) experiencing losses compared with simply holding the assets. Additionally, high gas fees on networks such as Ethereum can erode the profitability of participating in liquidity pools. This problem has spurred the exploration of solutions such as Layer 2 scaling and cross-chain interoperability. Security risks also pose a significant challenge, as smart contract vulnerabilities have led to several high-profile DeFi hacks. Ensuring robust security measures and regular audits is crucial for maintaining user trust and the integrity of these systems. Furthermore, the evolving regulatory landscape presents uncertainties that could impact the operation and growth of liquidity pools, potentially imposing restrictions or requirements that might affect their decentralization and usability.

Several platforms have emerged as key incumbents in the liquidity pool space, each with its unique advantages and moats. Uniswap, for example, is one of the earliest and most prominent DEXs, known for its user-friendly interface and significant trading volume. The introduction of Uniswap V3, which allows for concentrated liquidity provision, further cemented its position in the market. Balancer, another notable DEX, offers flexible pool configurations that enable users to create pools with multiple tokens and adjustable weights. This flexibility attracts sophisticated LPs who can optimize their strategies. Curve Finance specializes in stablecoin trading, minimizing slippage and impermanent loss by focusing on low-volatility assets, making it a preferred platform for stablecoin liquidity provision. Bancor, with its use of smart tokens and algorithmic market making, supports cross-chain liquidity and provides a unique approach to managing liquidity and price stability.

## LIQUIDITY POOLS

The technologies underpinning the liquidity pool sector are advanced and continually evolving. AMMs are at the heart of these systems, allowing for on-chain trading without the need for order books. These algorithms determine pricing and facilitate trades, making decentralized trading more efficient. For instance, Aperture Finance is simplifying the complexities within DeFi protocols by using AI-powered intent-based trading, allowing users to express their trades in natural language, which the system then translates into executable actions on the blockchain. This makes DeFi applications more accessible to a broader audience. Additionally, the concept of tranching, borrowed from traditional finance, allows LPs to customize their risk/return profiles, potentially attracting a broader range of participants. These innovations are driving the continuous evolution of liquidity pools, expanding their functionality and appeal.

As DeFi continues to evolve, we expect liquidity pools to keep expanding to support a wider range of financial products, including insurance, derivatives, and synthetic assets. Further, increased interest from institutional investors can drive significant capital inflows into liquidity pools, enhancing their depth and stability. Lastly, by lowering barriers to entry and providing access to financial services without intermediaries, liquidity pools can contribute to the greater financial inclusion that the crypto industry has promised since the beginning.

# Select company highlights


## Overview

Neptune Finance is a DeFi platform designed to automate leveraged investments. The company's platform is an automated protocol where users can access strategies that maximize leverage and total annual percentage yield while mitigating the risk of liquidation, enabling users to grow their DeFi assets. Neptune's journey began in May 2021 as an integration for leveraged vault strategies within the Terra ecosystem. Following market events in May 2022, Neptune pivoted to build an advanced money market on Injective.

Neptune Finance is a collateral-based lending and borrowing platform built using Rust and the Cosmos SDK, a development kit designed for interoperable networks. By using Neptune, lenders can earn interest from borrowers who provide collateral to secure their loans. Neptune offers whitelisted assets approved for lending, borrowing, and collateral use, available on the Injective blockchain. The protocol utilizes Neptune Vaults, automated investment strategies run by smart contracts, to mitigate liquidation risk through constant rebalancing. These vaults attract bonded assets (bAssets) to Anchor, deploy US Treasury loans to automated strategies, and swap reward tokens to the original bAsset to compound interest. Neptune also employs a proportional-integral-derivative (PID) controller to adjust borrowing rates and maintain market efficiency, matching supply to demand dynamically.

### Key company information

| | | |
|---|---|---|
| **Founded**<br>2021 | **Last financing valuation**<br>N/A | **Total raised**<br>N/A |
| **HQ location**<br>Vancouver, Canada | **Last financing**<br>Undisclosed VC funding | **Lead investor**<br>Chiron Partners |

Neptune launched its mainnet in February 2024 and so far has attracted around $14 million in total value locked and has lent over $4 million.[9] Neptune's developers are also building out its API to enable the integration of its protocol into other applications. In June 2024, it launched a built-in swap feature in partnership with Injex, facilitating over $100,000 in swaps within the first few weeks.[10]

## Leadership

Neptune Finance was founded and developed by Cryptech Developments.

## Financing history

Neptune Finance has raised venture funding from Chiron Partners.

9: "Strong Rates and New Integrations — June Community Update," Neptune Finance, Medium, July 3, 2024.
10: Ibid.

## Overview

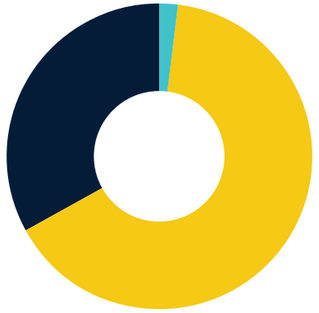
Rhinestone is a decentralized system that emphasizes modular account abstraction on the Ethereum blockchain. The protocol allows for the creation of smart accounts that are both flexible and extensible. Unlike traditional static accounts, Rhinestone's modular accounts empower users to dynamically add, remove, or modify functionalities, providing a tailored experience. Developers also can seamlessly introduce new features or adjust existing ones. The protocol's design is inspired by various architectures, including the Safe architecture and the Multi-Facet Proxy Standard (ERC-2535).

One of the main features of Rhinestone is its transformation of smart accounts into an open platform. This openness ensures that developers are not confined to a predetermined set of features but can craft functionalities specific to their product and user needs. This adaptability extends to decentralized applications (dApps), offering them an enhanced user experience. Furthermore, the protocol supports the development of specialized wallets tailored to distinct market segments, such as DeFi. An emerging trend also sees dApps integrating their experiences within dominant wallets, and Rhinestone's modular approach is poised to facilitate an open marketplace for such integrations. In our view, Rhinestone's potential competitive advantage is in its focus on user-centric customization and security. By offering a platform that caters to both end users and developers, Rhinestone addresses the growing demand for adaptable and secure smart account management in the decentralized space. Its commitment to flexibility, combined with a robust security framework, positions the Rhinestone Protocol as a promising contender in the ever-evolving world of blockchain and decentralized applications.

### Key company information

| | | |
|---|---|---|
| **Founded**<br>2023 | **Last financing valuation**<br>N/A | **Total raised**<br>N/A |
| **HQ location**<br>Oxford, UK | **Last financing**<br>Seed round | **Lead investor(s)**<br>N/A |

### Exit Predictor



**IPO:** 2% probability **M&A:** 65% probability **No exit:** 33% probability

**Success:** 67% probability

*Note: Probability data is based on PitchBook VC Exit Predictor methodology.*

## Leadership

Rhinestone was co-founded by CEO Konrad Kopp. He previously founded Signet, which aimed to revolutionize loyalty programs by bringing them onto blockchains, and Hedgefox, an education technology data infrastructure company. His academic credentials include an undergraduate degree in philosophy, politics, and economics from the University of Oxford. He also studied law at the University of Vienna. Kopp has been involved in various projects, including ChainBook, an on-chain contact book designed to enhance Web3 user experience, and Terminal Portfolio, a platform to query portfolio data. He also played a pivotal role in the establishment of the Oxford Blockchain Society's public website and member dashboard.

## Financing history

Rhinestone raised an undisclosed amount of pre-seed funding from 1kx in January 2021. The company subsequently raised an undisclosed amount of seed funding from Safe, Heartcore Capital, and Lattice Capital in December 2023. 1kx and other investors also participated in the round.

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