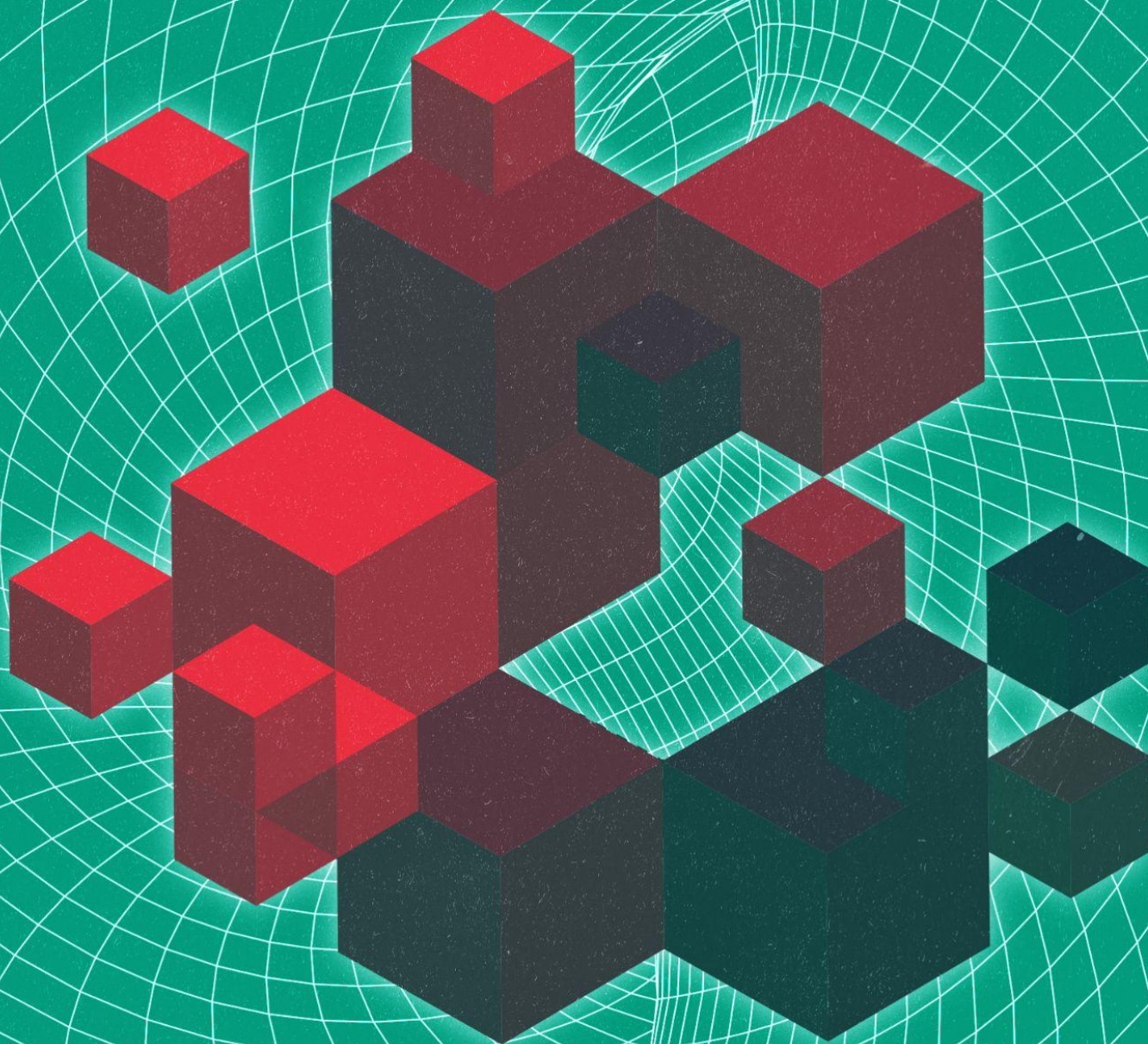




Digital Asset Funding Landscape



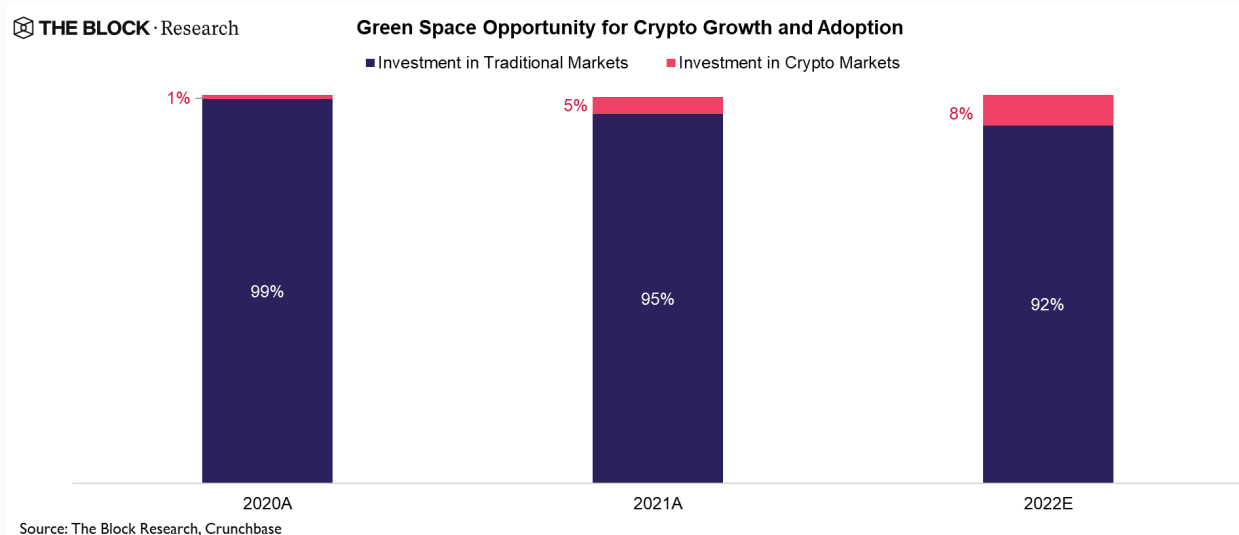
1

Introduction

Digital Asset Funding Landscape

Disruptive innovations often lead to revolutionary outcomes, and the evolution of digital assets demonstrates a similar potential for the global financial industry. As numerous blockchains propose their ideal recipe for balancing decentralization, speed, and security, a plethora of decentralized applications with attractive value propositions is being developed on top of them. The blockchain industry has shifted gears in the last three years. The industry is evolving at an accelerating pace, and a probability of a forthcoming technological revolution has infused curiosity among tech enthusiasts and investors around the globe. The exuberance of digital assets, especially in the bull markets, has attracted the attention of venture capitalists (VCs) since it offers potential exposure to asymmetric investment opportunities.

Although cryptocurrencies have garnered noticeable adoption in recent years, the digital asset industry is still embryonic, as investments in crypto and traditional markets differ by orders of magnitude. **A mere 8% of the total amount invested by venture capitalists in 2022 corresponds to the digital asset sector.**



The nascent digital asset industry is just a blip on the radar for firms focused on traditional market investment coverage and analysis, as historically, the digital asset industry has contributed to less than 10% of yearly investments.

The digital asset landscape tends to be plastered with an abundance of speculative data from unreliable sources, which makes it arduous to separate the signal from the noise. The crypto industry serves unique challenges like the identification of multichain protocols, interpretation and categorization of on-chain investments, exclusion of ‘web3’ companies in which blockchain only contributes as a buzzword, etc. Tackling these issues requires a more nuanced crypto-native understanding. As a result, the digital asset sector has never gotten the comprehensive, fact-based, in-depth analysis of the venture funding landscape it deserves.

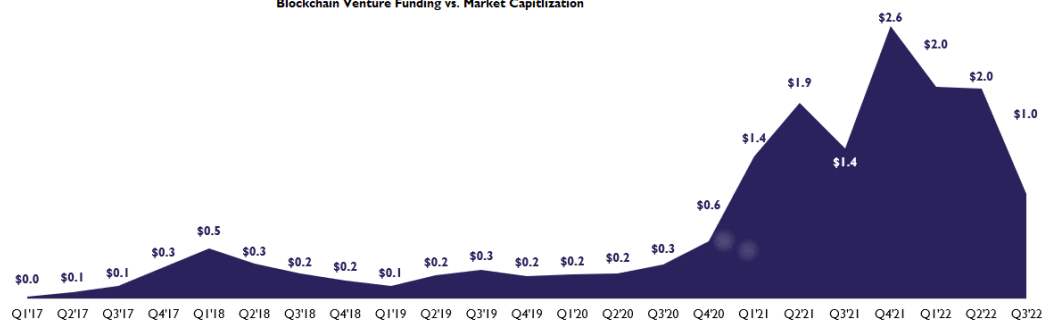
This report endeavors to change that.

In an attempt to analyze the sector from the perspective of venture capital investments, we followed the money injected into blockchain companies and protocols. This report synthesizes historical funding data and offers a thorough commentary on the evolution of investment theses in the blockchain industry. The report also talks about the effect of marquee events on the volatility in market price action and variations in funding trends.

This report is not financial advice. It only offers a comprehensive congregation of available data followed by observations that may help guide readers through the complex industry of crypto private funding.

The report examines funding activity until Q3 2022.

Blockchain Venture Funding vs. Market Capitalization



| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| Cumulative Amount Raised (\$bn) | 0.1063 | 0.3174 | 0.7565 | 1.4958 | 4.7648 | 6.6263 | 8.4636 | 9.8618 | 10.546 | 11.614 | 12.284 | 13.008 | 13.753 | 14.372 | 15.12 | 16.158 | 19.857 | 26.372 | 34.413 | 44.937 | 57.626 | 67.211 | 73.44 |
| Cumulative Deal Count | 60 | 108 | 174 | 276 | 494 | 699 | 942 | 1,107 | 1,281 | 1,511 | 1,714 | 1,845 | 1,996 | 2,145 | 2,350 | 2,590 | 2,934 | 3,449 | 3,883 | 4,457 | 5,117 | 5,827 | 6,380 |

Source: The Block Research
 Note: Reflects market capitalization in US trillion dollars. Reflects amount raised in billion US dollars.

The digital asset sector has been a wildly volatile landscape. Over the past six years, market capitalization has increased more than 20 times and fallen by more than 50% from its all-time highs (ATH). **The sector has raised 6,380 venture funding deals in this timeframe, corresponding to \$73.4 billion.**

A look at Funding Deals in Blockchain Sector

Deal Type Wise Segregation

| | Average Deal Size | Number of Deals | Deal Mean |
|---------------------|-------------------|-----------------|-----------|
| Growth Equity | \$137.5 | 31 | \$50 |
| Later Stage | \$149.2 | 86 | \$105 |
| Others | \$14.9 | 156 | \$1.4 |
| Mid Stage | \$71.04 | 206 | \$35 |
| Token Sale | \$31.3 | 304 | \$6.5 |
| Strategic | \$16.1 | 489 | \$5 |
| Early Stage | \$20.1 | 681 | \$10.5 |
| Pre-Seed | \$0.8 | 1023 | \$0.1 |
| Seed & Pre-Series A | \$5.0 | 2668 | \$3 |

Note: Deal size and mean deal in million US dollars. Others Deal Type Includes Angel, Commitment, Crowdfunding, STO. Deals with unidentified deal amounts are not considered for visual clarity and ease of assessment

Amount raised for 1,557 out of the recorded 6,380 deals were unidentified. These deals were not considered while calculating the average and median for respective deal types. A total of 2668 Seed and Pre-Series A deals were recorded, whereas only 86 Later stage deals were identified. The average and median values for Later Stage deals were the highest, corresponding to \$149.2 million and \$105 million, respectively.

2

The Block Research's Methodology

The Block Research's Methodology

We have an extensive venture capital database of 6,380 funding deals recorded in 6 years. Our M&A aggregation includes 742 transactions since 2013. Every deal record is backed by a news article or a press release proving the deal's legitimacy. These backing documents may or may not contain information about the deal type, round, amount raised, valuation at which the company raised the money, and the investors who've taken part in the deal. The amount raised in funding deals may be denominated in various fiat currencies depending upon the jurisdiction of the stakeholders involved. The Block Research converts all the deal amounts into US Dollars for standardization in further analyses.

The Block Research has created a database of various attributes of projects raising a funding deal to further analyze the state of the venture funding in more detail. This database includes multiple data fields like the project's headquarters, the project's integration with various blockchains, and the category and subcategory of the project based on its value proposition.

Some attributes for a few of the recorded projects are unavailable from reliable sources. For example, out of the 4,461 projects we inspected, the official headquarters of 220 were unidentified. Amount raised for 1,557 deals out of 6,380 was not recorded. 526 of the 742 M&A deals do not mention transaction details. These data points were excluded from the analyses whenever necessary, and a note mentioning the same is attached below the corresponding chart.

While inspecting various blockchain ecosystems, **we only consider DeFi and NFTs/Gaming categories since the rest have low on-chain activity, contain centralized conglomerates, or conduct their businesses on private blockchains.**

The list of participating investors may vary for different news articles based on their sources since the public declaration of participation could be refrained by projects in the spotlight or investors involved themselves. We have tried to aggregate this list of investors in a single database.

We only analyze private venture funding deals. Various private ICOs, like Telegram's TON Blockchain, were considered for this report. Although the capital in the Telegram deal was returned to the private investors following regulatory issues, we consider its existence for the analysis as it is a testament to investors' interest in the industry.

We note that the data behind these parameters can be misreported either by the data aggregators we considered for data compilation or by the projects themselves. However, The Block Research's process of manual filtering and updating these data points increases the accuracy of the data compiled for this analysis.

The number of metrics we have considered to analyze the dataset is quite large. Rather than throwing in raw numbers and percentages, we've tried to convey the observations of our study through numerous visual charts.

Category Identification

Analyzing such massive data without sorting and segregation may result in confusing observations. The Block Research has created its own bespoke framework to study the venture funding landscape of digital assets. We have constructed eight categories, each further divided into several subcategories. A project is classified into one of the eight categories based on its value proposition in the industry. We believe this would encompass every project in the entirety of the digital asset sector. Occasionally there are outliers, but we try to fit them in the best way possible to reflect their true purpose in the space.

This framework can help the reader make their own inferences based on the observations made in this report.

Categories:

1. Crypto Financial Services (CFS)
2. Data/Analytics/Information (DAI)
3. DeFi
4. Enterprise

5. Infrastructure
6. NFTs/Gaming
7. Trading/Brokerage
8. Web3

For a detailed explanation of category identification methodology, please refer to the appendix.

Fundamental Categories

Mark Twain once famously said, “During the gold rushes, it's a good time to be in the pick and shovel business.” There's a common belief in emerging industries experiencing enormous growth that rather than being another candidate in a competitive environment, it is better to be the one fulfilling the requirements of other companies to function smoothly.

Companies classified under CFS, Infrastructure, and Trading /Brokerage do precisely that in the digital asset sector. CFS and Trading/Brokerage offer an onboarding gateway to new users, allowing them to interact with cryptocurrency-based financial applications. Infrastructure sets up the foundational layer for decentralized applications by providing smart contracts, developer tools, interoperability mechanisms, etc. It sets up the foundational layer and creates a conducive environment for crypto-native projects from the rest of the categories to perform smoothly.

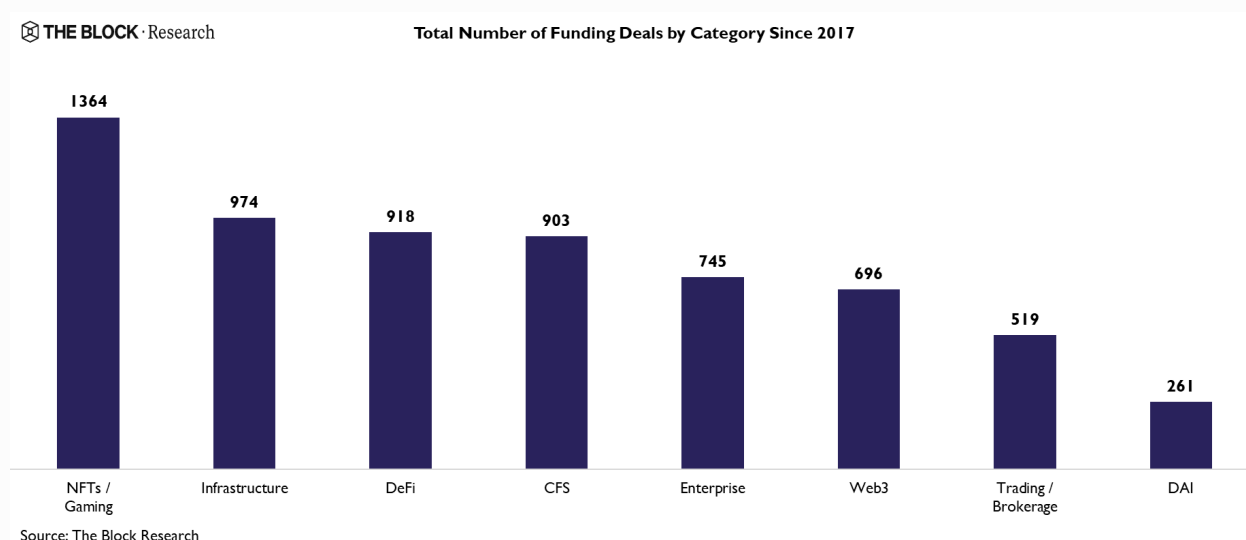
Historically, projects from these categories have been least affected by the volatility in market conditions. **Throughout the report, Fundamental Categories point to the group of CFS, Infrastructure, and Trading/Brokerage.**

We want to underline that a mention of ‘category’ throughout the report would mean the category is defined as per this section unless mentioned otherwise.

3

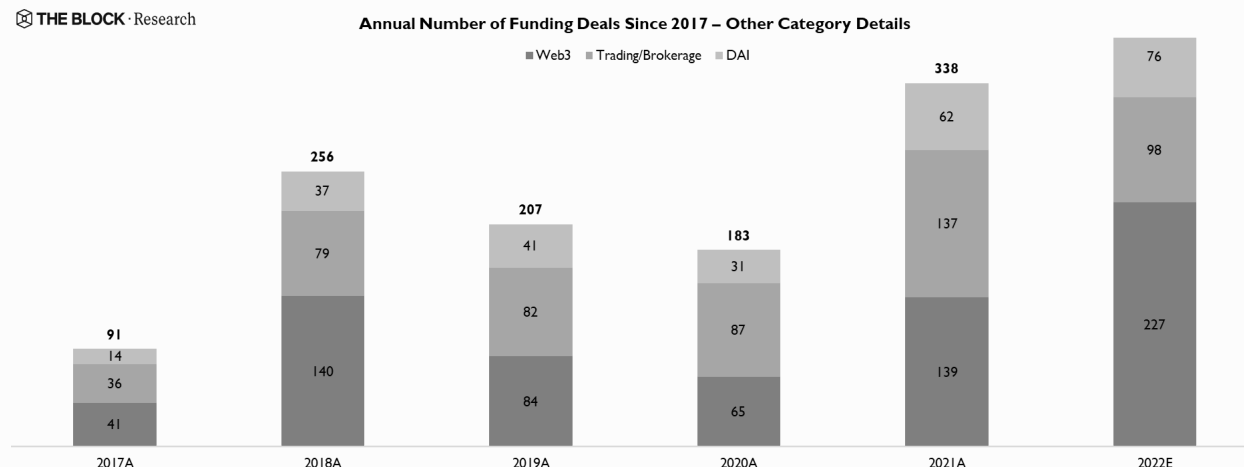
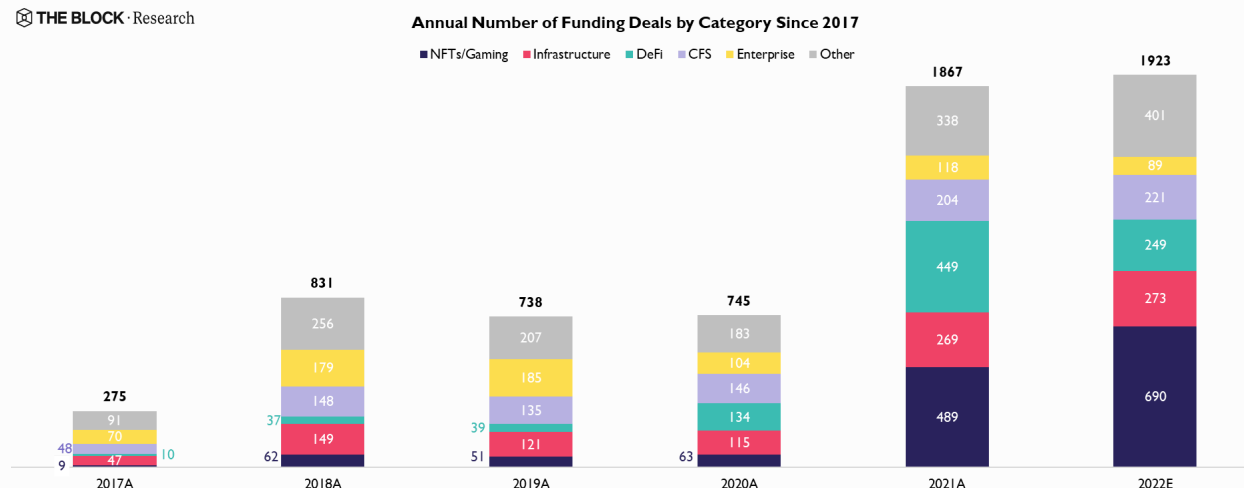
Macro-Level Overview

Macro-level overview



The digital asset sector has seen 6,380 deals since 2017, as of this writing. The NFTs/Gaming category raised the highest number of deals. The deal count for Data/Analytics/Information (DAI) was the lowest, 261. Although some firms appear as data analytics companies, their value proposition emphasizes more on infrastructure development, developer tooling, etc. We classify such companies under the Infrastructure category; hence this could be another reason for the DAI deal count being low.

DAI firms like Chainalysis, Nansen AI, Glassnode, etc., cater to most of the industry's current data analytics and compliance needs as they have matured significantly over the years. Although their dominance could have increased the barrier to entry for new companies, we believe there will be a higher influx of new companies and investments for this category in the near future.






The 2017 bull run brought unprecedented genuine interest from people, causing a sharp uptick in users. This sudden interest meant developing and scaling the industry's infrastructure to complement the increasing user adoption was a priority. The dire necessity led to significant growth in Fundamental Categories - CFS, Infrastructure, and Trading/Brokerage in 2018.


Web3 has been another exciting area of development to inspect. During the ICO boom of 2018, every so-called blockchain entity wanted to introduce utility tokens that allow token holders to perform a specific function on the blockchain network. However, after the markets relinquished the 'Up Only' narrative, the craze for utility tokens dwindled. **Web3 dropped about 41% in terms of the number of deals**, making it the highest YoY (Year over Year) fall in any category ever since 2017.

However, the number of deals for Web3 has steadily risen in the last three years. Development of alternate Layer 1s and their low transaction fees improved asset interoperability, and better infrastructure in contrast to 2017-2018 could be a few factors that have attracted investors to Web3.

DeFi dominated the space for four quarters concerning deal counts starting Q3 2020. Compound's liquidity mining program of COMP tokens in May 2020 rewarded users with various incentives for lending and borrowing on Compound. This incentive program, along with the fair launch narrative of Yearn Finance, kicked off the DeFi Summer. Lending protocols, decentralized exchanges, and derivative products launched in numbers as DeFi applications gained traction in the hype of DeFi Summer.

| KPI | Apr-20 | Sep-20 | Increase |
|---|-------------------|-------------------|----------------|
|  UNISWAP Monthly Volume | \$169mm | \$15bn | +100.0x |
| Total Value Locked (TVL) | \$800mm | \$10bn | +10.0x |
|  bitcoin Transferred to  ethereum | 20,000 BTC | 60,000 BTC | +3.0x |

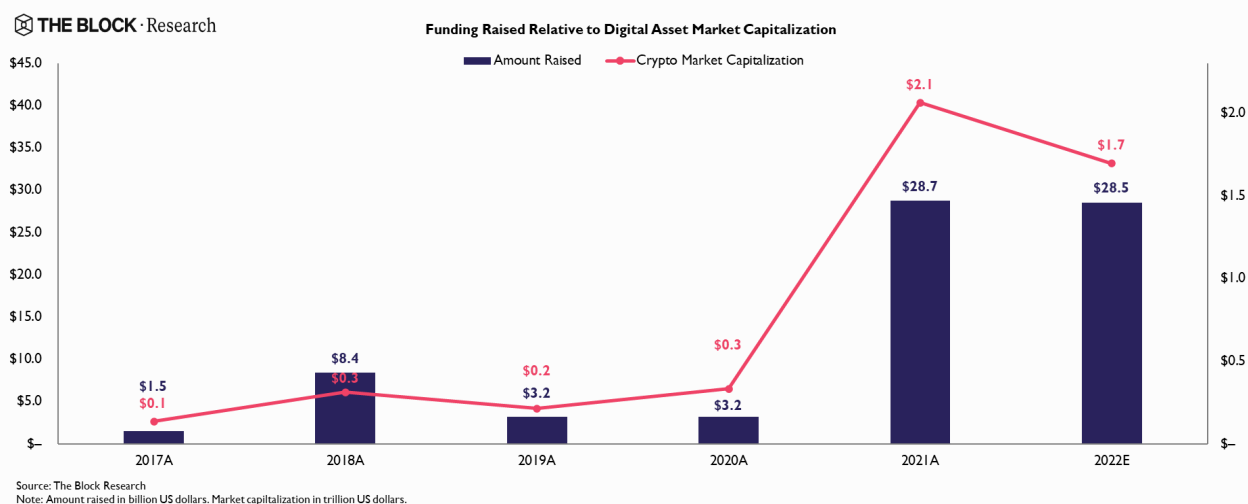
Source: Finematics.

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Uniswap's monthly volume went from \$169M in April 2020 to over \$15B in September 2020. The total value locked in DeFi increased by over 10x. The amount of Bitcoin moved to Ethereum went from 20,000 in April to almost 60,000 in September. 22% of the total capital injection in the DeFi category transpired during Q3 2020 and Q2 2021. These numbers demonstrated proof of DeFi's aggrandizing strides in Crypto.

'NFT' in recent years became a buzzword in Crypto. **NFTs/Gaming corresponds to the highest number of deals** because of the growing interest in blockchain gaming, metaverse,

and creator economy. NFTs materialized into a cult as they percolated into the broader culture and made digital asset ownership a more widely-known concept. 87% of the total deals raised under the NFTs/Gaming category were made from 2021 and onwards. Since Q2 2021, NFTs/Gaming has outperformed other categories every quarter in deal counts.

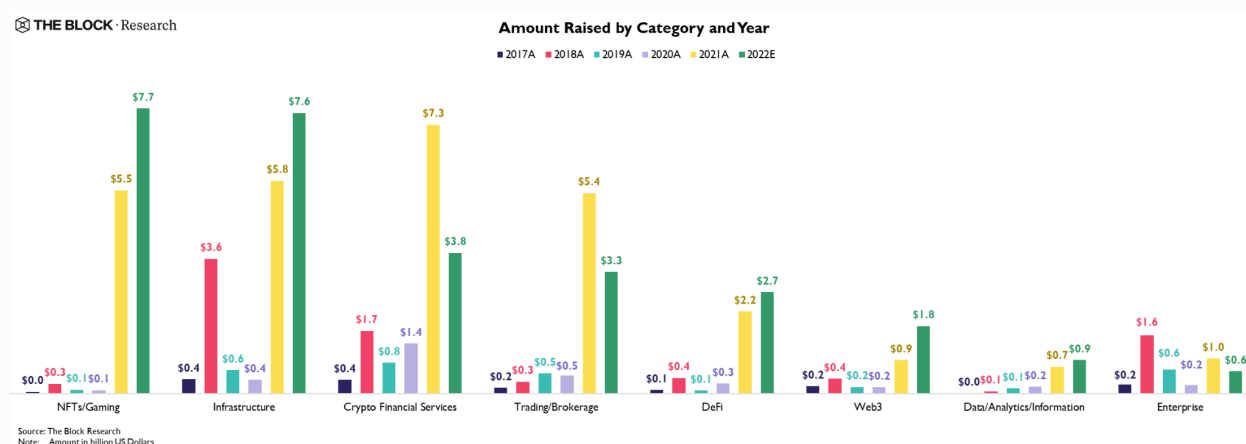


Until the recent rise of other layer 1s, the crypto market cap was heavily correlated with bitcoin's price movements. Bitcoin's contribution to the crypto market cap was 95% until March 2017 and has oscillated between 35% and 72% since then. In January 2017, bitcoin finally broke \$1,000 after years of price fluctuations ranging between \$100 and \$900. This rise kicked off a euphoric bull run. Prices doubled to \$2,000 in mid-May and skyrocketed to over \$19,000 by December. Over the following 18 months, bitcoin's price plummeted below \$4,000. However, the first-of-its-kind bull run helped attract some attention from venture capitalists. Crypto investments increased from \$1.5 billion in 2017 to \$8.4 billion in 2018.

Even though the price of bitcoin and crypto market cap plummeted from 2017 to 2018, we observed investors' growing interest in the sector. A similar trend can be noticed in the aftermath of the 2020 bull run. The total crypto market cap has fallen sharply from \$3 trillion to \$1 trillion, but money infused in the industry has barely decreased YoY. From the repetition of such events, we can infer, henceforth, that private funding is typically a lagging indicator of the sector's health and interest. Investment trends exhibit a delayed response to the overall

macroeconomic volatility and crypto-specific events. On top of that, many deals are finalized earlier than when they are announced and made public.

From 2018 to 2019, Amount raised decreased by 57%, which most likely was a response to a prolonged bear market. From 2020 to 2021, as the total number of deals increased more than 2x, the amount infused in the sector increased by 808%. Projects under CFS, Infrastructure, NFTs/Gaming, and Trading/Brokerage saw a big jump in terms of amounts raised.

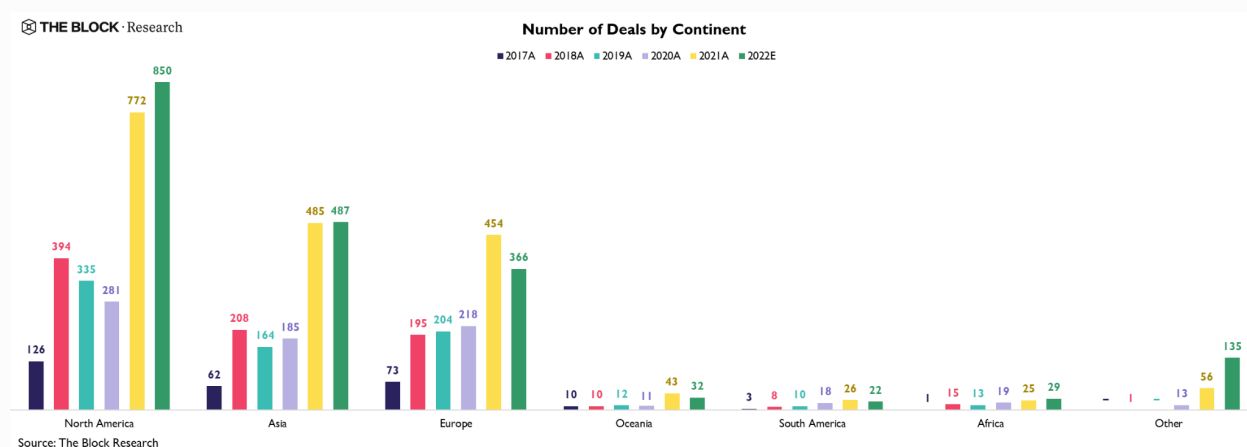


Overall, the Infrastructure and CFS category projects attracted the most investments, closely followed by NFTs/Gaming. DAI projects remain the least popular category for investments. Currently, venture capitalists prefer developing existing DAI platforms with room for growth instead of experimenting with newer projects. Companies like Chainalysis, Nansen, and Dune analytics dominate the DAI category investments. **34% of the total investments in the DAI category correspond to the three companies mentioned above.**

4

Location-Specific Analysis

Location-specific Analysis



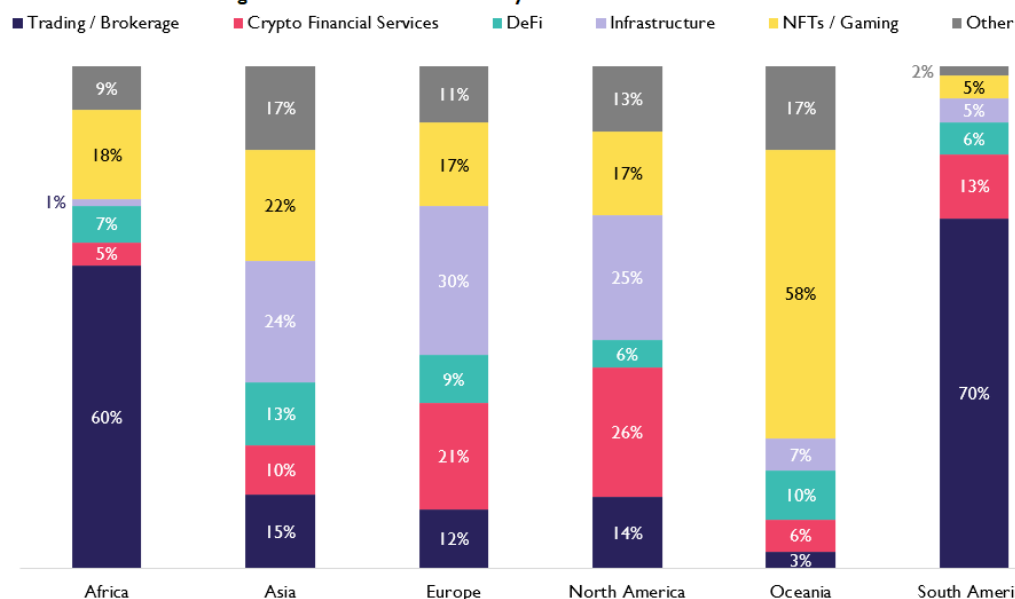
Crypto activity is more prominent in North America, Asia, and Europe than the other continents. Throughout the report, we label these continents collectively as ‘ **Active Continents**’ as 91% of the total deals recorded and 95% of the total amount raised are attributed to these continents. Oceania, Africa, and South America are labeled ‘ **Developing Continents**.’

North America has been dominant in the sector ever since its inception. This mirrors North America’s lion’s share in global venture investments. The United States consistently contributes to more than 50% of global venture investments.

Looking at YoY developments among Active Continents, we noticed a peculiar trend; Europe saw a rise in the number of deals in 2019 as opposed to other Active Continents. This rise could have been mainly due to the mildly favorable regulatory framework for digital assets in some European countries, as opposed to their previous stance.

The number of deals increased in 2018 and 2021 compared to the preceding years in all continents. The preceding years included two decorated bull runs in the crypto industry, which reestablishes the hypothesis that venture funding is a lagging indicator of the state of the market.

Funding Raised in Different Countries by % of Total Raised



| Amount Raised | Africa | Asia | Europe | North America | Oceania | South America |
|---------------------------|--------|---------|---------|---------------|---------|---------------|
| Infrastructure | \$0.01 | \$3.41 | \$3.88 | \$10.85 | \$0.05 | \$0.03 |
| Crypto Financial Services | \$0.02 | \$1.56 | \$2.89 | \$10.76 | \$0.05 | \$0.07 |
| NFTs / Gaming | \$0.12 | \$3.14 | \$2.38 | \$7.42 | \$0.39 | \$0.03 |
| Trading / Brokerage | \$0.32 | \$1.86 | \$1.62 | \$6.00 | \$0.02 | \$0.40 |
| DeFi | \$0.04 | \$1.71 | \$1.27 | \$2.25 | \$0.08 | \$0.04 |
| Enterprise | \$0.01 | \$1.84 | \$0.70 | \$1.62 | \$0.06 | \$0.01 |
| Web3 | \$0.00 | \$0.43 | \$0.46 | \$2.64 | \$0.05 | \$0.00 |
| Data / Analytics / Info | \$0.04 | \$0.14 | \$0.43 | \$1.42 | \$0.00 | \$0.00 |
| Total | \$0.55 | \$14.09 | \$13.63 | \$42.97 | \$0.70 | \$0.57 |

Note: Amount raised in billion US dollars.

North American projects have raised 41% more money than all the other continents combined. Projects in CFS and Infrastructure category correspond to more than 50% of the total amount raised by North America. Most early developments in the industry during 2017-2018 occurred in North America, and the two categories mentioned above were more prevalent during that time.

In Asia, NFTs/Gaming leads the way by contributing 22% of the total amount raised. The increasing requirement for alternate income sources for citizens, the borderless nature of blockchain games, the rise of Axie Infinity, and the development of Polygon as a scaling solution, along with Polygon's native NFT infrastructure projects, may have played some part in this growth.

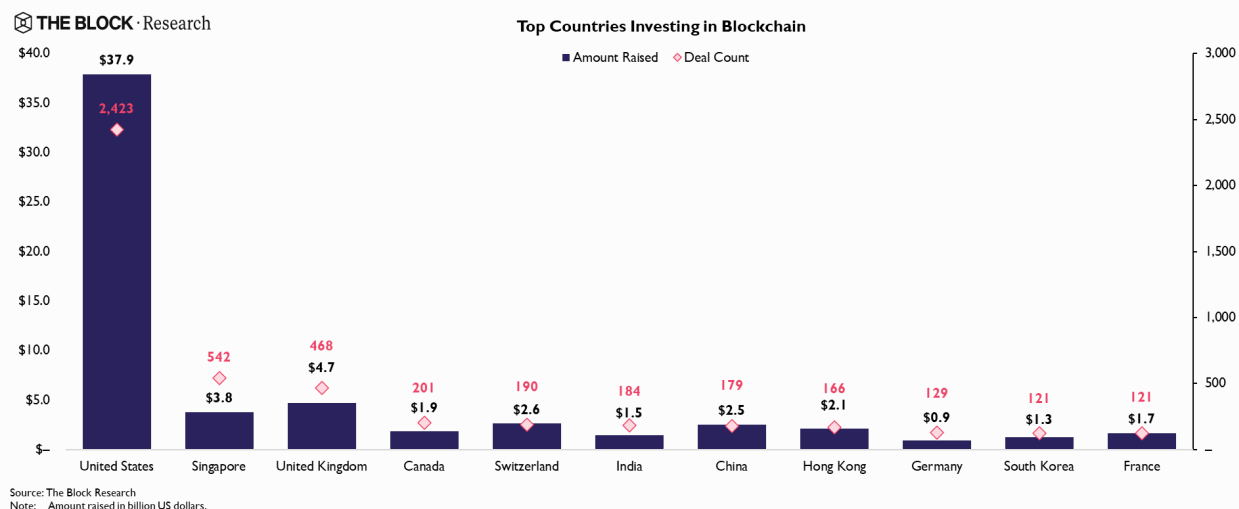
As rationale might dictate, a jurisdiction will primarily attract investments into the Fundamental Categories' projects. To re-iterate, CFS, Infrastructure, and Trading/Brokerage fall under Fundamental Categories. However, Developing Continents exhibit a different trend.

The Developing Continents are taking noticeable strides in Trading/Brokerage to increase user adoption. South America and Africa have raised \$573 million and \$546 million, respectively, since 2017. Trading/Brokerage corresponds to more than 60% of this amount for both continents. Mercado Bitcoin, a Brazil-based exchange, has raised \$288 million to date. Kucoin, a Seychelles-based digital asset exchange focusing on retail traders, raised \$150 million in Q2 2022 from Jump Capital. Yellow Card, an exchange incorporated in the United States but predominantly focused on African demography, has raised \$56.5 million to date, including a recent \$40 million raise in September 2022 in a series B round led by Polychain Capital.

However, we observed that the distribution of investments in the CFS and Infrastructure category is more disproportionate and heavily skewed towards Active Continents.

What does this imply? Let's understand this with a hypothetical example. Offchain Labs, the company behind Arbitrum, which develops scaling solutions for Ethereum, belongs to the Infrastructure category. Although this R&D company is based out of the United States (USA), a group of developers from Sudan, Africa, can create a DeFi application on top of Offchain Labs' Arbitrum. Let us call it 'MakerSwap.' If the existing infrastructure of Arbitrum is adequate for MakerSwap's functionality that is being developed in Sudan, it becomes unnecessary to reinvent the wheel for Sudanese catering to their region.

Infrastructure, as a category, offers building blocks to develop a framework of decentralized financial applications. Projects belonging to CFS create digital asset-specific financial applications. CeDeFi platforms like Ledn also belong to the CFS category. Both the categories mentioned above can be accessed by users in most jurisdictions with no restrictions on the access of products/services. CFS and Infrastructure are **location-agnostic** categories as opposed to Trading/Brokerage.

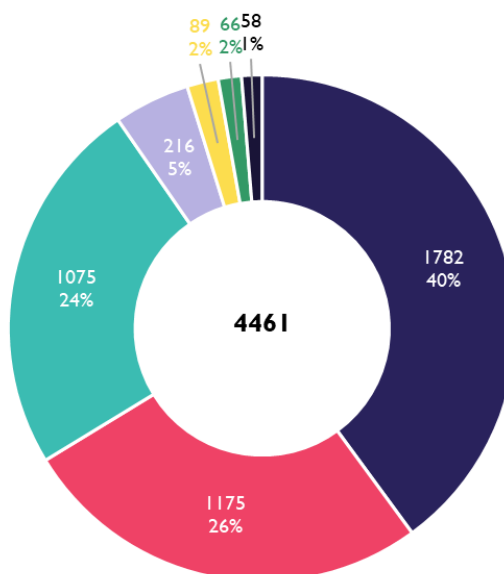


The United States is the torchbearer for the crypto industry. According to The Block Research's funding database, projects from the United States have raised 2423 deals. Furthermore, nearly \$38 billion have been infused into USA-based projects in the last six years. Singapore, a crypto pioneer because of its favorable regulatory and tax infrastructure, which recently began observing stricter regulation, is the second most preferred country for crypto investments.

% Share Distribution of Total Projects Since 2017

Continent Wise Segregation

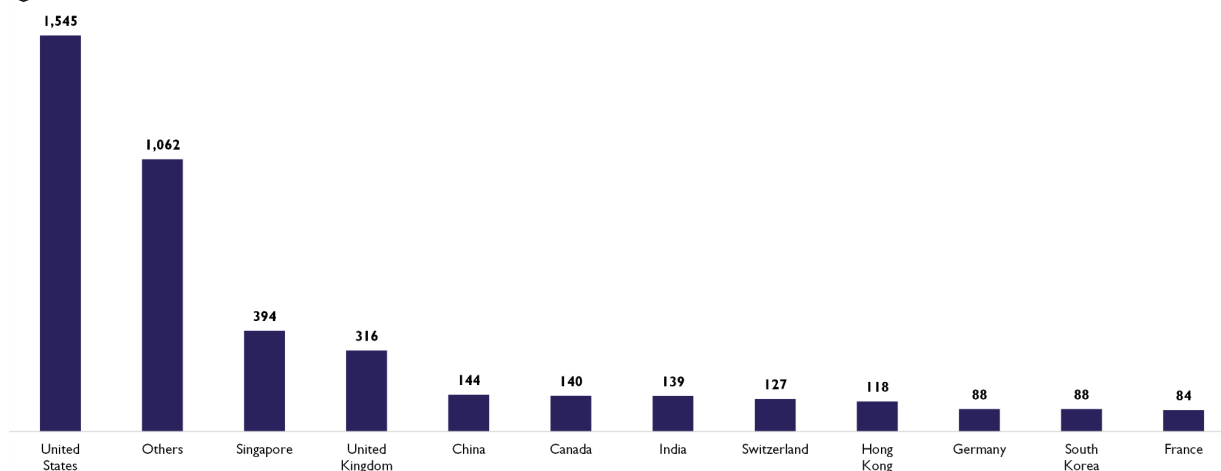
■ North America ■ Asia ■ Europe ■ n/a ■ Oceania ■ Africa ■ South America



Source: The Block Research

Note: Only the project that have raised funding are considered.
Location of 2% of the projects were unidentifiable.

As of this writing, 90% of the total projects in the digital asset sector reside in Active Continents.

Number of Projects / Companies Headquarted by Country

Source: The Block Research.

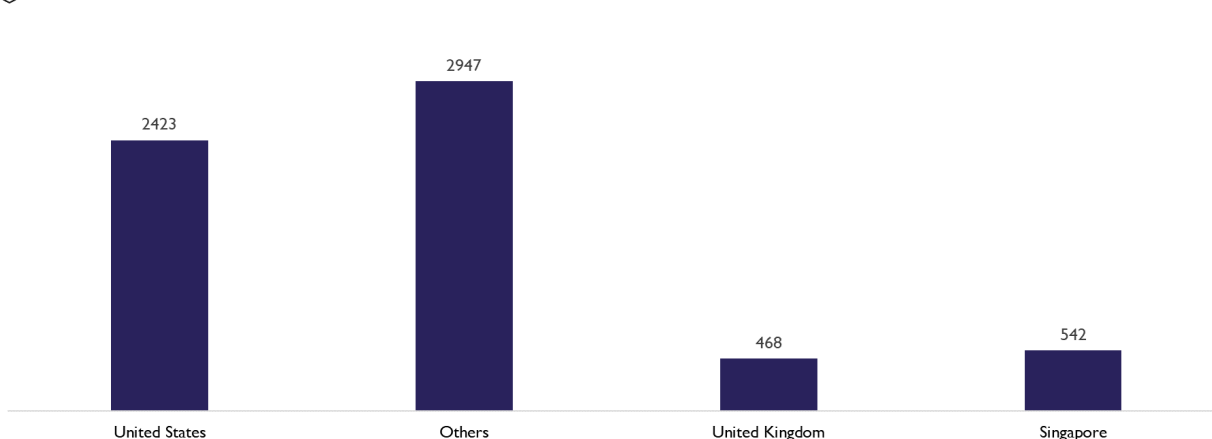
Note: 216 projects were unidentifiable.

36% of the projects that have sought investments in the last six years are headquartered in the United States. Of the 139 Indian projects that attracted investments, 91 were founded during the previous 30 months. The renouncement of the cryptocurrency ban may have played a crucial role in the rise of digital assets in India.

Comparison of the United States, United Kingdom, and Singapore with Other Countries

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Deal Counts in Various Countries

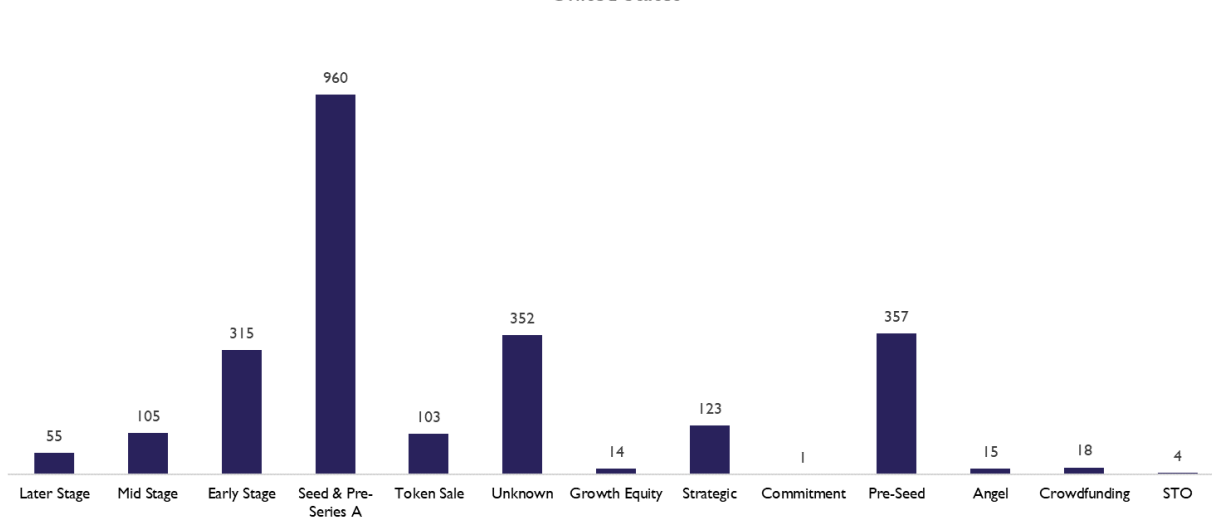


Source: The Block Research

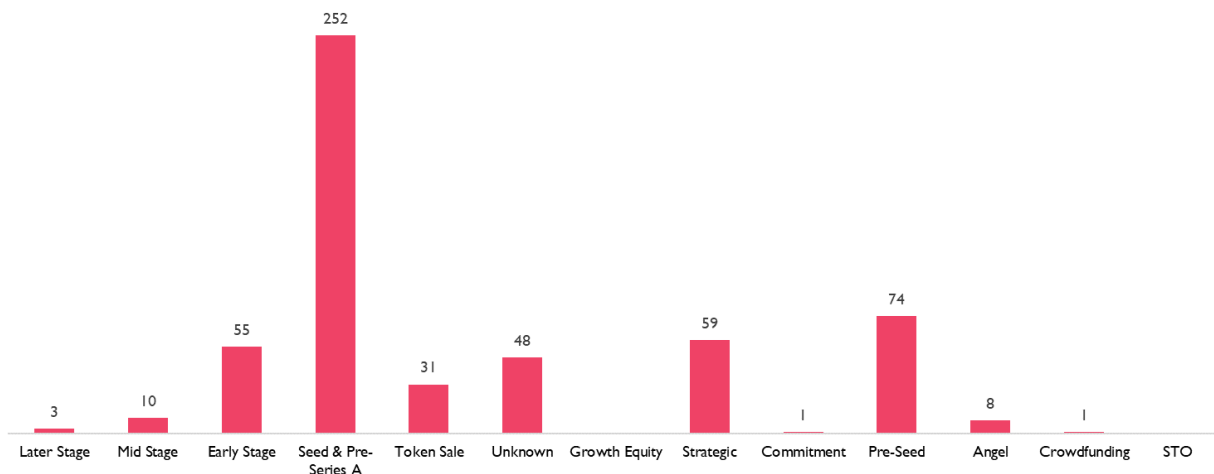
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Deal Count Across Deal Types

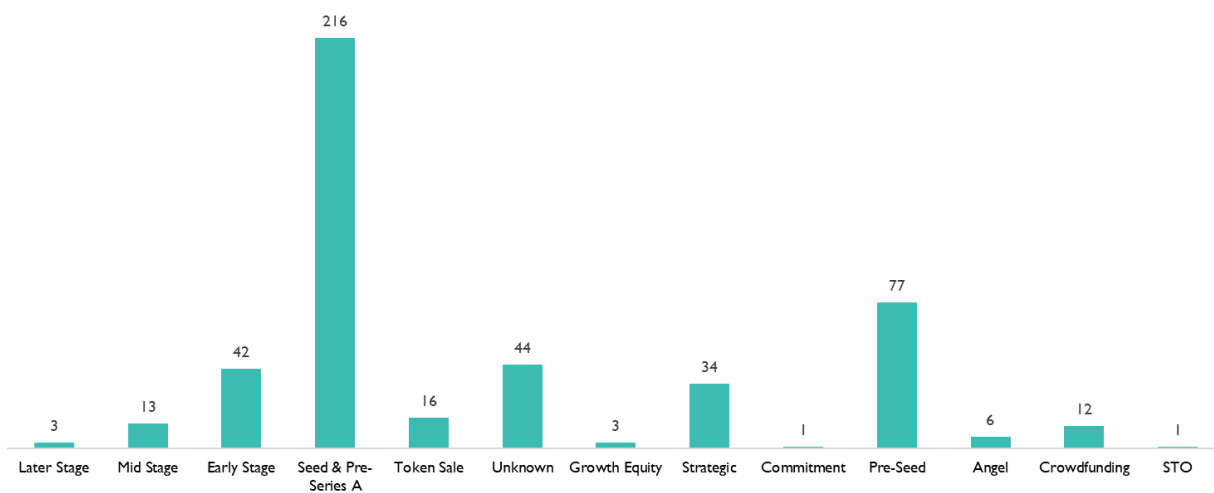
United States



Source: The Block Research

Deal Count Across Deal Types
Singapore

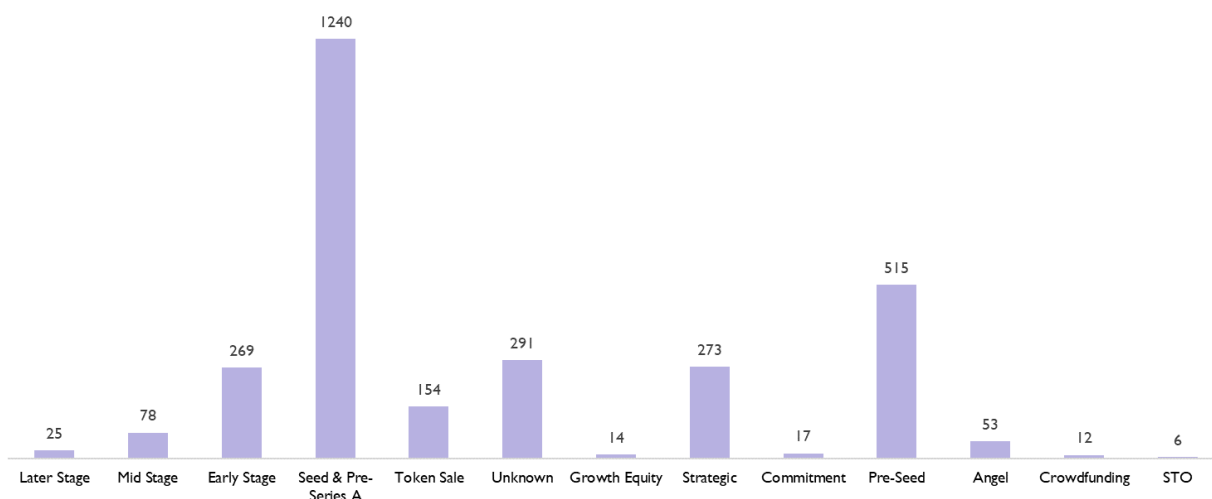
Source: The Block Research

Deal Count Across Deal Types
United Kingdom

Source: The Block Research

Deal Count Across Deal Types

Others



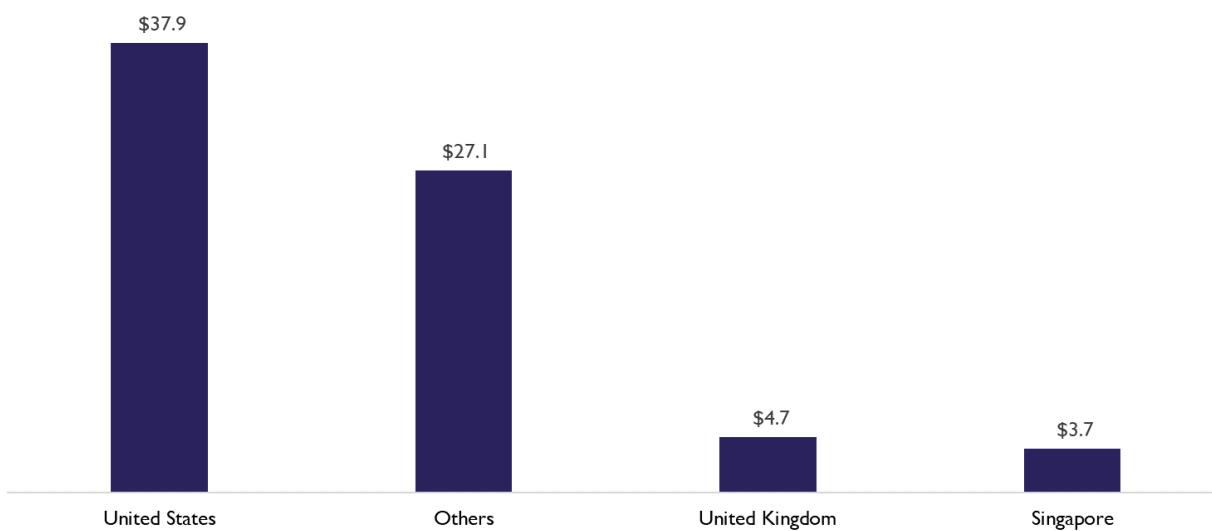
Source: The Block Research

Usually, projects that exhibit potential and are a little more than a mere idea attract funding mainly in crowdfunding, Pre-Seed, and Seed rounds. Until this stage, capital injection is necessary primarily to kick-start the process of converting a prototype into an actual concept capable of generating revenues for the startup.

If a project survives long enough to raise another round of investments, its survival and generating revenue are testaments to the viability of the business concept. Any investment following this is made at Series A level and above. Capital from these rounds is typically utilized to optimize, expand, and scale the existing products/ services. The Block recognizes the capital injection rounds of Growth Equity, Series A, Series B, and beyond as **Maturation Phase funding rounds**.

Nearly 50% of the United Kingdom and Singapore deals are at the Seed level. 489 out of 2,423 deals in the United States correspond to the maturation phase funding rounds.

Amount Raised Across Deal Types

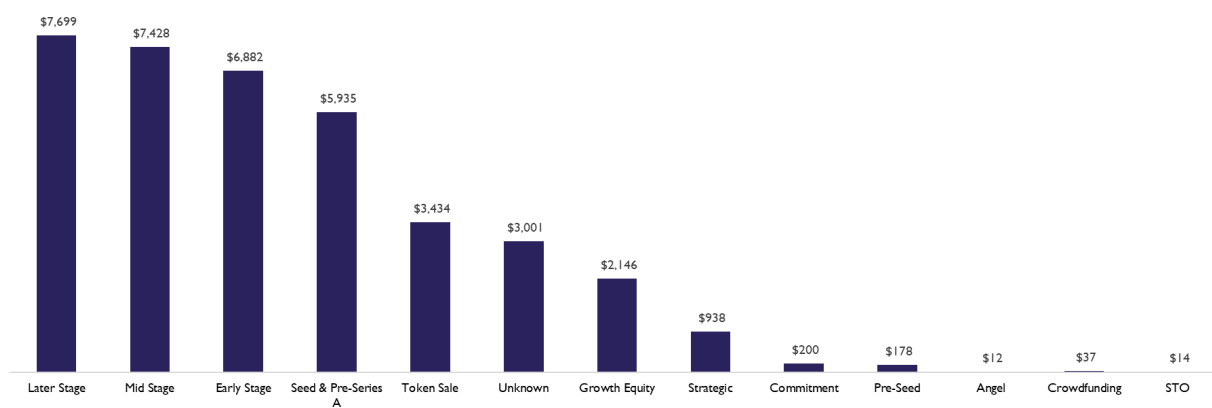


Source: The Block Research

Note: Amount Raised in billion US dollars.

Amount Raised Across Deal Types

United States



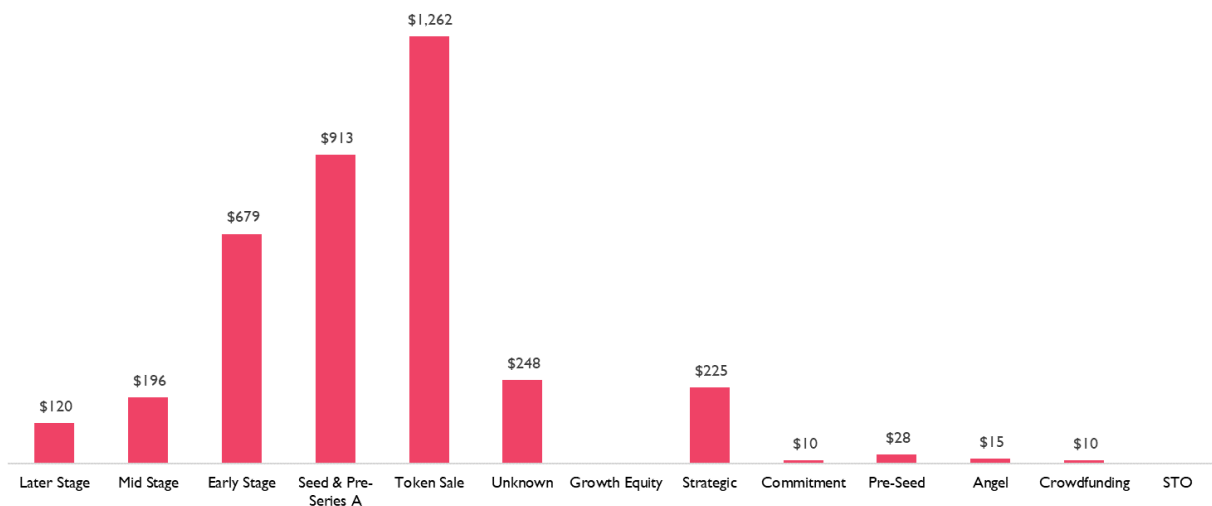
Source: The Block Research

Note: Amount Raised in million US dollars.

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Amount Raised Across Deal Types

Singapore



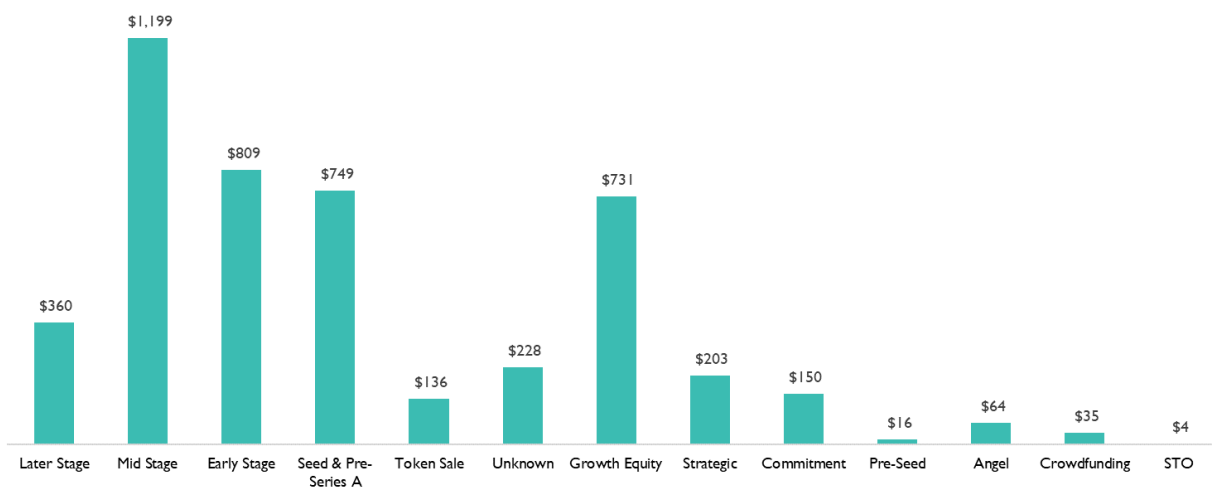
Source: The Block Research

Note: Amount Raised in million US dollars.

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Amount Raised Across Deal Types

United Kingdom



Source: The Block Research

Note: Amount Raised in million US dollars.

63% of the total observed investment in the crypto space originates in the United States, United Kingdom, and Singapore combined.

5

Category-Specific Analysis

Category-Specific analysis

This section will dive deeper into every category to inspect the available dataset through a category-specific lens.

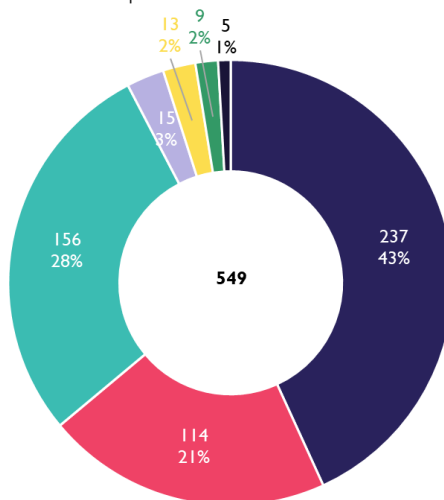
Crypto Financial Services (CFS)

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Continent Wise Distribution of Number of Projects

Crypto Financial Services

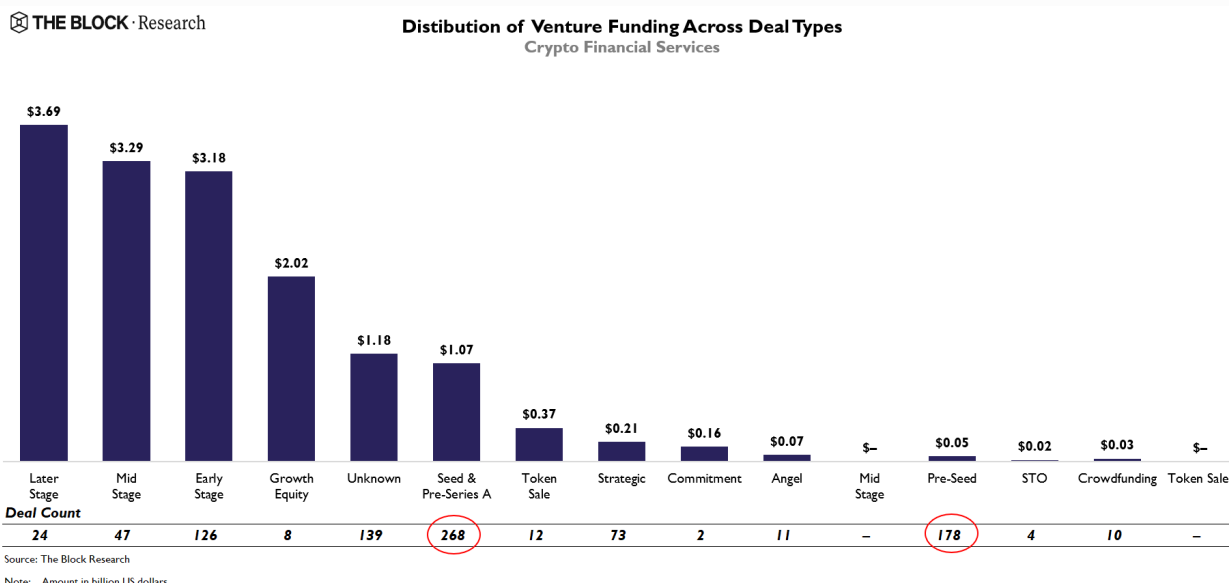
■ North America ■ Europe ■ Asia ■ South America ■ Africa ■ Oceania ■ n/a



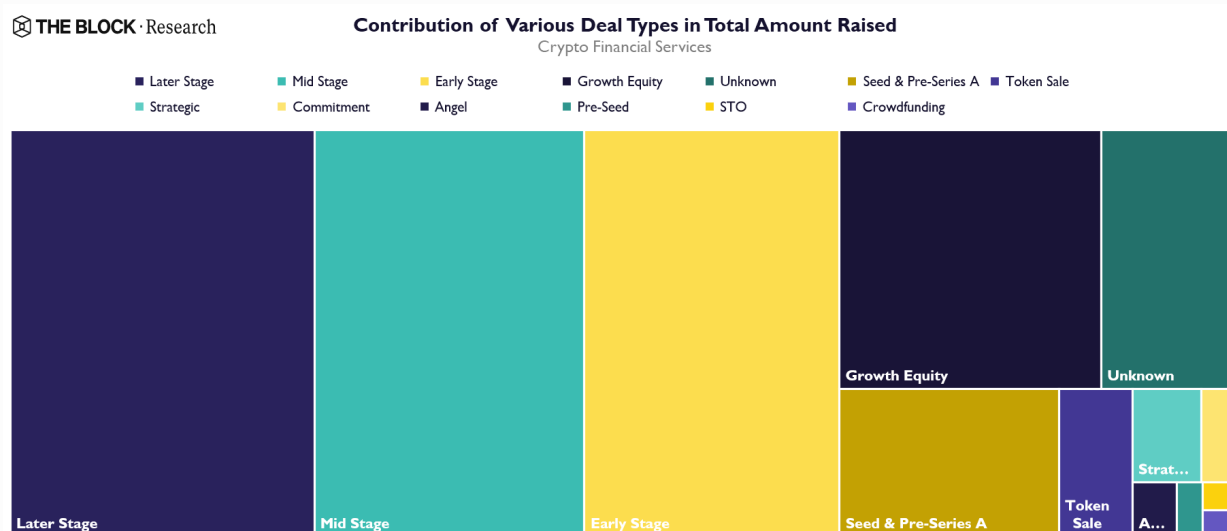
Source: The Block Research

237 of the 549 projects under the CFS category belong to North America.

Oceania is home to only nine projects classified under CFS.



49% of the total deals raised are at the Pre-Seed or Seed levels. **The highest number of maturation phase funding deals belongs to the CFS category.**



We can infer that CFS as a category has matured over the years, as 82% of the total investment belongs to the Early, Mid, and Later Stage deals and Growth Equity.

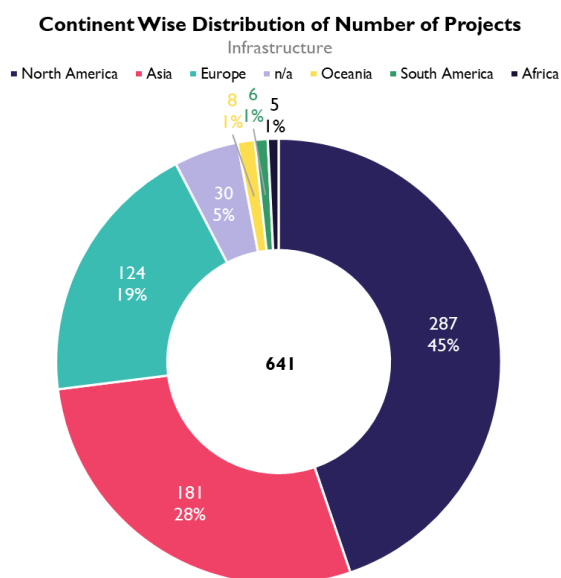
The highest amount raised in a single round in the digital asset sector was by a CFS company, NYDIG, which delivers bitcoin products across industries, from banking and insurance to fintech and nonprofits. NYDIG raised \$1 billion in a growth equity round. Circle, a payment

services company that developed USDC, raised an aggregate of \$840 million in two growth equity rounds. As of this writing, USDC controls 31% of the total stablecoin supply.

Payment/Payment services and Security Tokenization remained the most attractive subcategories for investors as they correspond to 49% of the total deals under CFS.

Infrastructure

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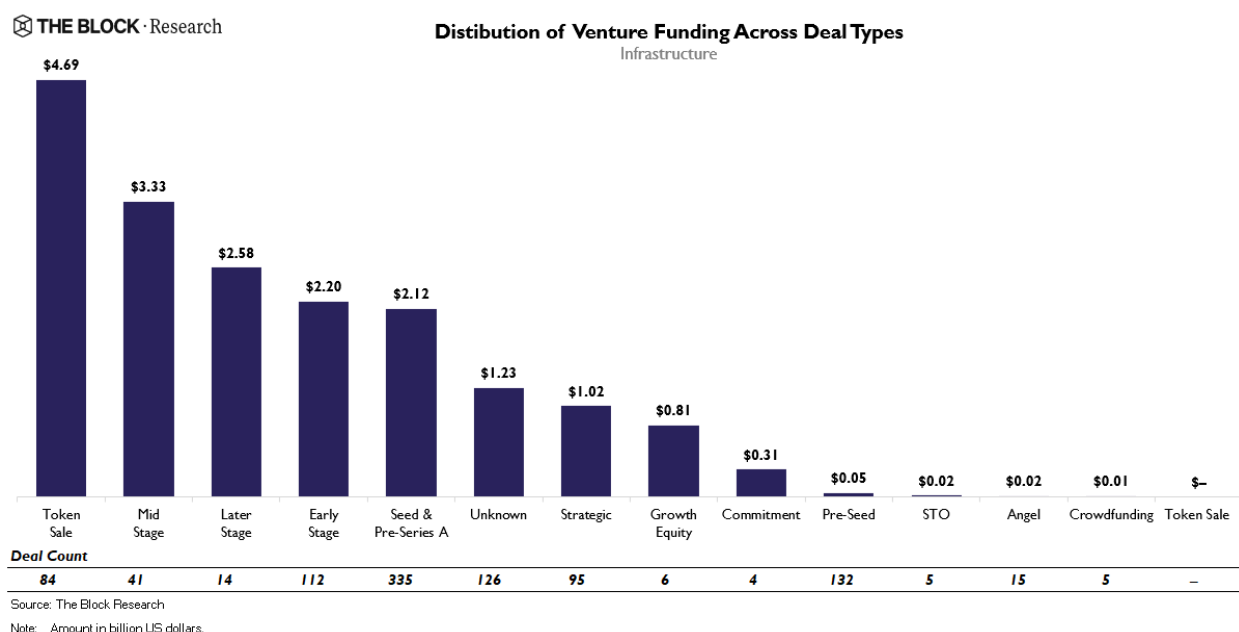


Source: The Block Research

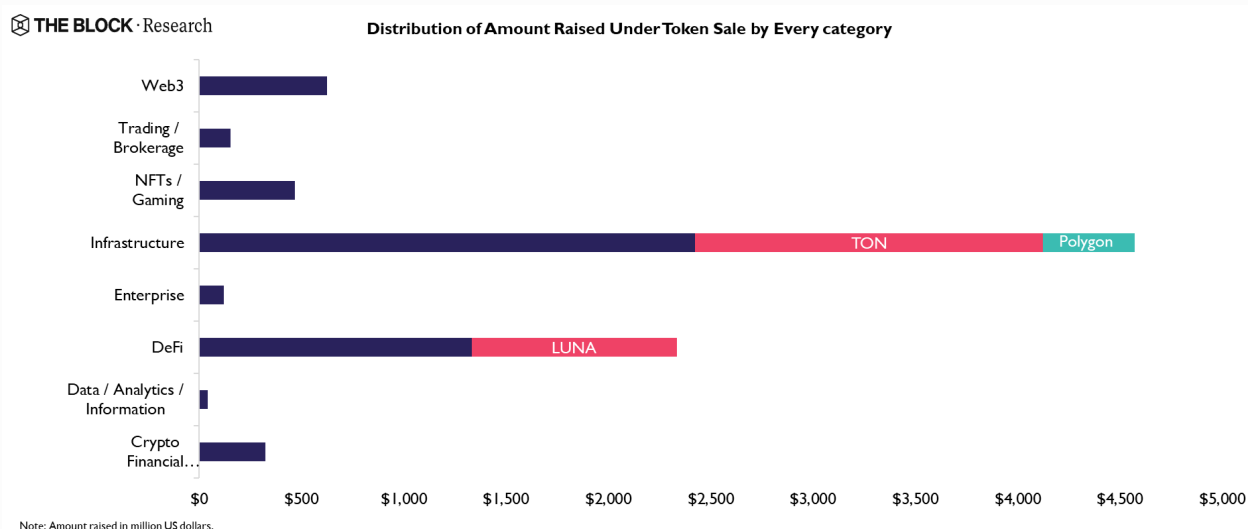
The Active Continents correspond to 92% of the total Infrastructure projects, whereas Developing Continents contribute to only 3% of the Infrastructure projects.

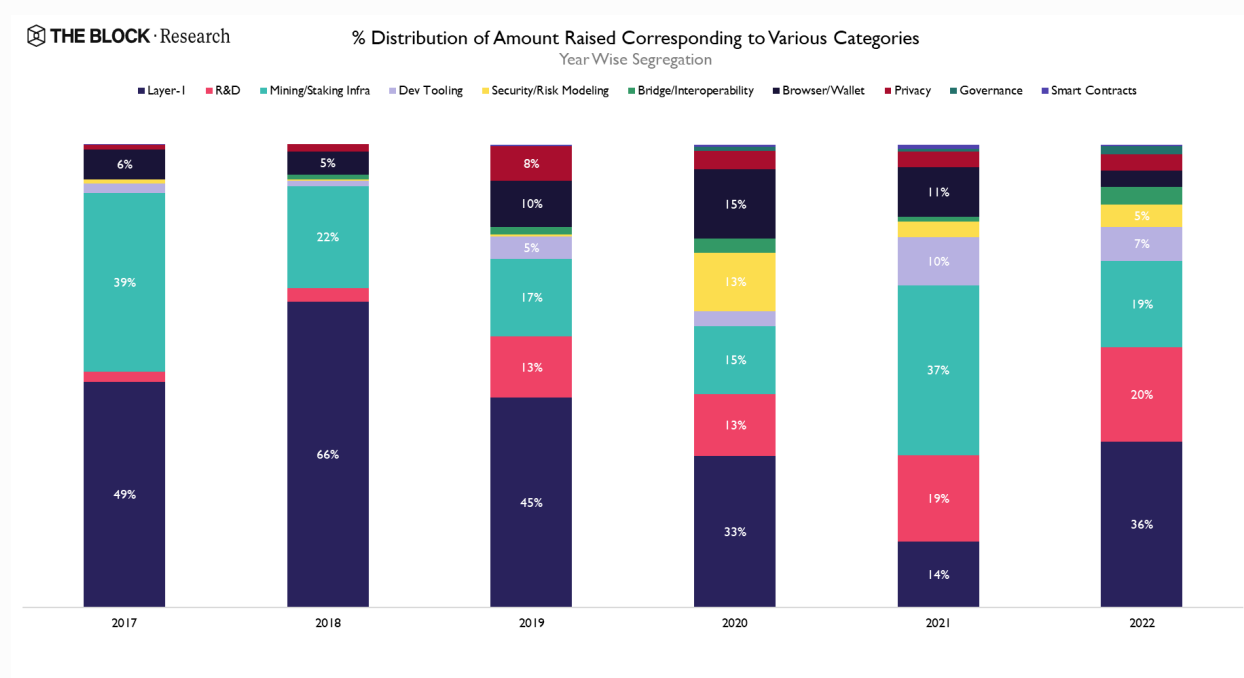
Iris Energy, an Australia-based sustainable bitcoin mining company with accessible amounts of under-utilized renewable energy, raised \$25 million. It was the highest amount raised by a company not situated in the Active Continents. 120 other capital raises from Active Continents in the Infrastructure category garnered more funds than Iris Energy.

This fact corroborates our previous hypotheses that there is a drastic difference in development between Developing Continents and Active Continents. Moreover, the investments in Infrastructure are most disproportionate and heavily skewed toward Active Continents.



48% of the total deals that occurred were executed at Pre-Seed and Seed & Pre-Series A level. Interestingly, \$4.5 billion were raised in Token Sales, the highest dollar amount raised in Token Sales by a category. However, TON Blockchain and Polygon's token raises correspond to roughly \$2.15 billion.





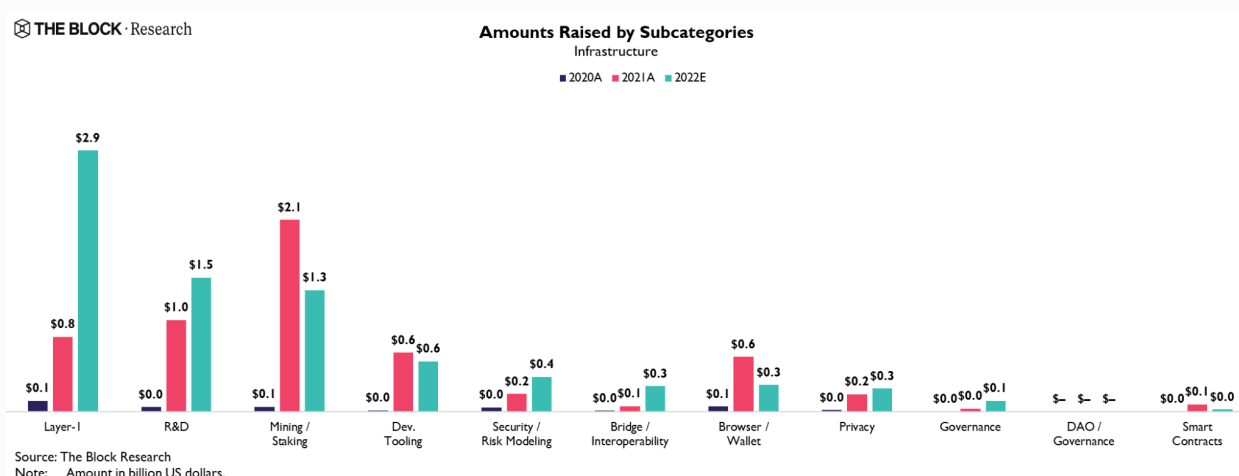
Among the projects under Infrastructure, Mining/Staking Infra and Layer I subcategories attracted the most finances until 2019. The investments are relatively more distributed from 2020 onwards.

The rise of scaling solutions for Ethereum and other L1s

Since its inception, Ethereum has spearheaded the decentralized finance sector. As user adoption for Ethereum increased exponentially in 2019-2020, transaction costs skyrocketed. Ethereum's protocol design limits the number of transactions it can process to just 15 per second, but the number of transactions submitted on the blockchain was much higher. Users paid as high as \$200 to execute transactions. This rendered retail market participants unfit to interact with Ethereum and gave rise to other Layer I smart contracts and scaling solutions for Ethereum. Scaling solutions offer increased transaction speed and higher transaction throughput without sacrificing the decentralization or security of the Ethereum base layer.

The exorbitant gas price of Ethereum led to a supply-demand gap that made retail investors exercise other alternative blockchains. Until early 2020, 94% of the Total Value Locked (TVL) was concentrated on Ethereum. As of this writing, the TVL is more distributed as 57% of the

TVL belongs to the Ethereum blockchain, and the rest is divided amongst Tron, BNB Chain, Avalanche, Solana, etc.



Subcategories like Layer I, R&D, and Bridge/Interoperability, which work towards developing a more frictionless end-user experience, have consistently garnered more interest YoY since 2020.

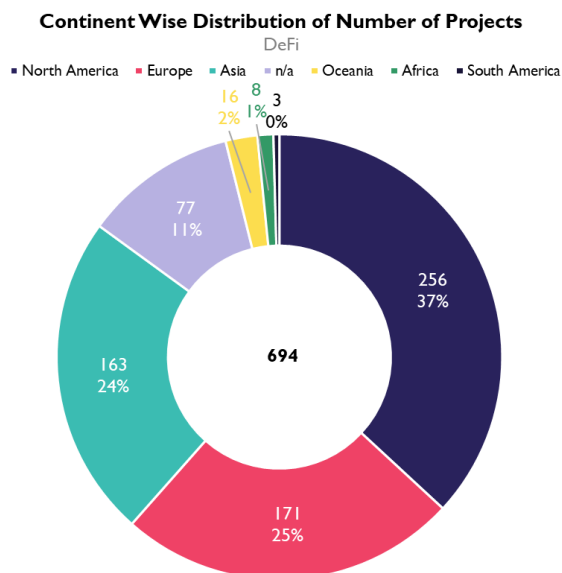
Lithosphere, an AI-powered platform-level public chain aiming to connect all tokens and create a layer of management across all blockchains, raised \$400 million in a commitment round led by GEM Digital. L-Is like Near, Solana, Ava Labs, and Aptos raised more than \$200 million each to develop their respective smart contracts.

Capital injections in R&D have been steadily increasing for the last three years. The amount raised by projects under the R&D subcategory grew from \$50 million to \$1.4 billion in the respective years of 2020 and 2022. Consensus, an R&D company that offers services ranging from consulting to developing turn-key blockchain-based projects, has raised \$715 million since 2021.

Polygon, Optimism, Offchain Labs, and Starkware are some notable R&D companies building scaling solutions that **have collectively raised nearly a billion dollars**. All these raises sprung up in the last two years to attract users and developers since the Ethereum base layer was unfit for daily transactions.

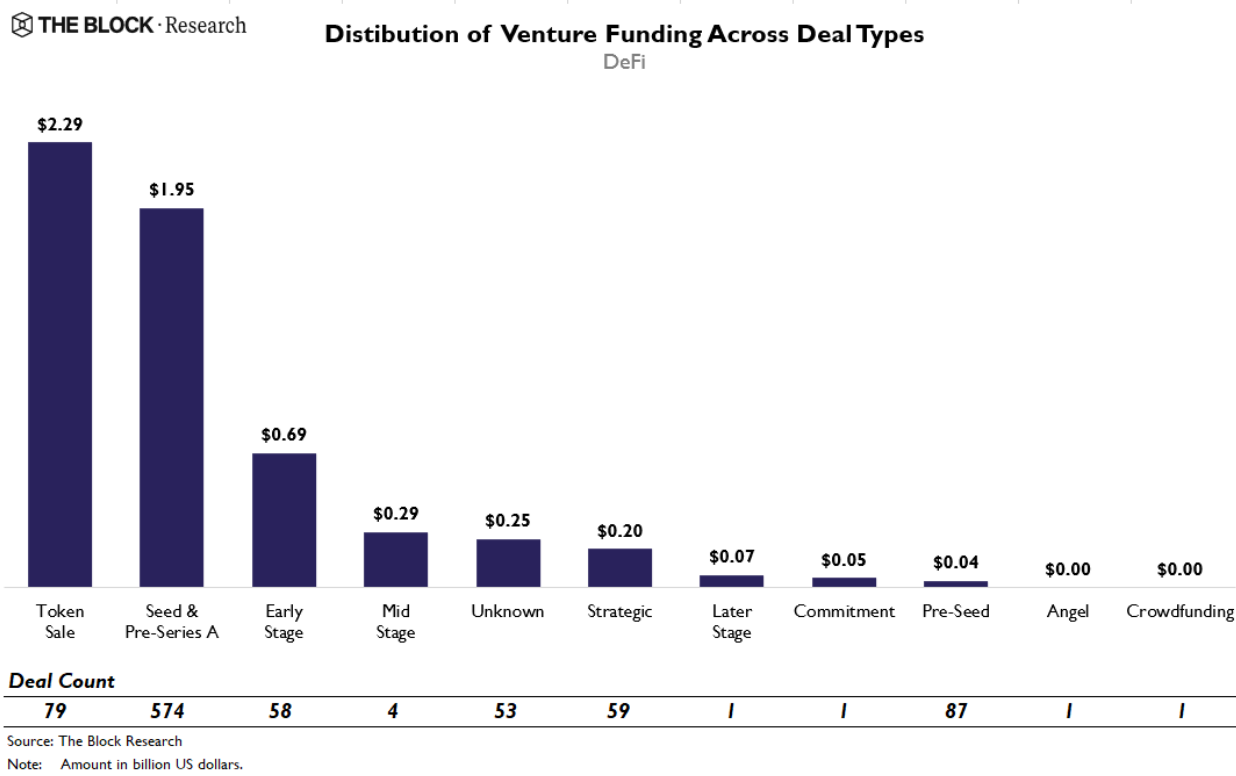
DeFi

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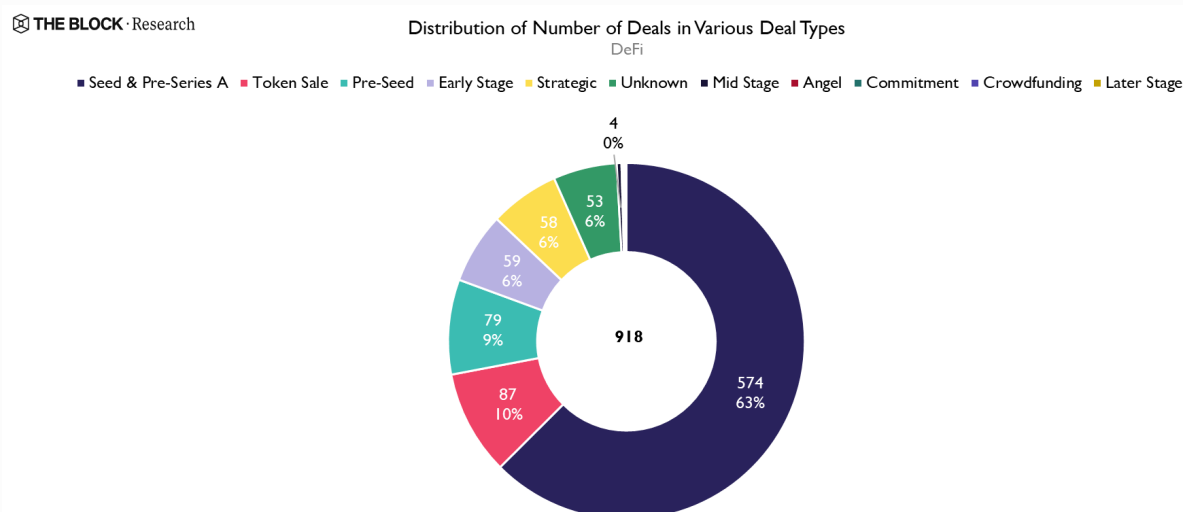


Source: The Block Research

The second most funded projects after the NFTs/Gaming belong to the DeFi category. North America dominates the category, as 45% of the projects that attracted investments are headquartered in it. The United States and Singapore are home to 286 projects out of 694.



The DeFi category has raised a massive amount in Token Sales, contributing 40% of the total amount infused in the DeFi projects. However, this inference is heavily influenced by a single Token Sale conducted by Terra. Terra's Luna Foundation Guard aimed to build a UST Forex Reserve denominated in Bitcoin by raising \$1 billion from Jump Capital and 3 Arrows Capital.



DeFi projects attracted a maximum number of investments compared to other categories between Q3 2020 and Q2 2021 following DeFi summer. **Although DeFi contributed to a considerable 14.4% of the total deals in the digital asset sector, it only corresponds to 8.2% of the total amount raised.** This is because most deals in DeFi have come at the Seed level. Of the 875 deals raised, 63% of the deals occurred at Seed & Pre Series A level.

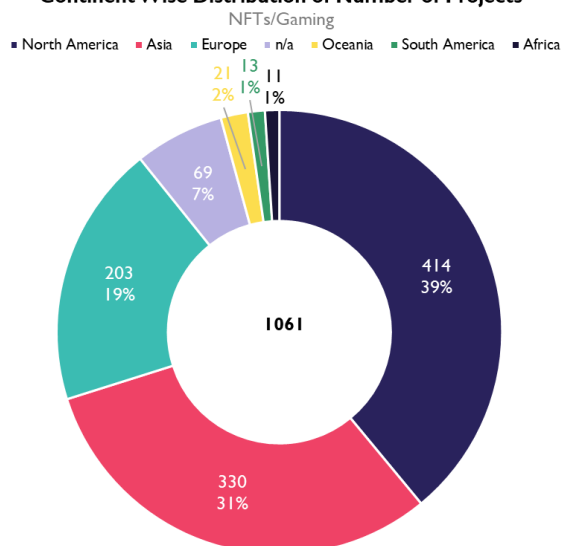
One possible explanation is the relatively low overhead to launch a DeFi protocol compared to other types of companies. The entire product is software-based, and the team is usually small. In theory, if a DeFi protocol is successful, it will be decentralized over time, and the need for external capital injection will taper off.

Only 6 DeFi projects have raised Mid or Later stage funding rounds. DYDX, a derivatives exchange, is the only DeFi protocol that has raised a Later Stage funding round. The round was led by Paradigm, CMS holding, HashKey Capital, and others.

NFTs/Gaming

NFTs/Gaming is the most flamboyant category in the sector, as celebrities across industries have indulged in it. Non Fungible Tokens, on a high level, are digital asset ownership certificates but are often pigeonholed as “just pixelated JPEGs.”

Continent Wise Distribution of Number of Projects



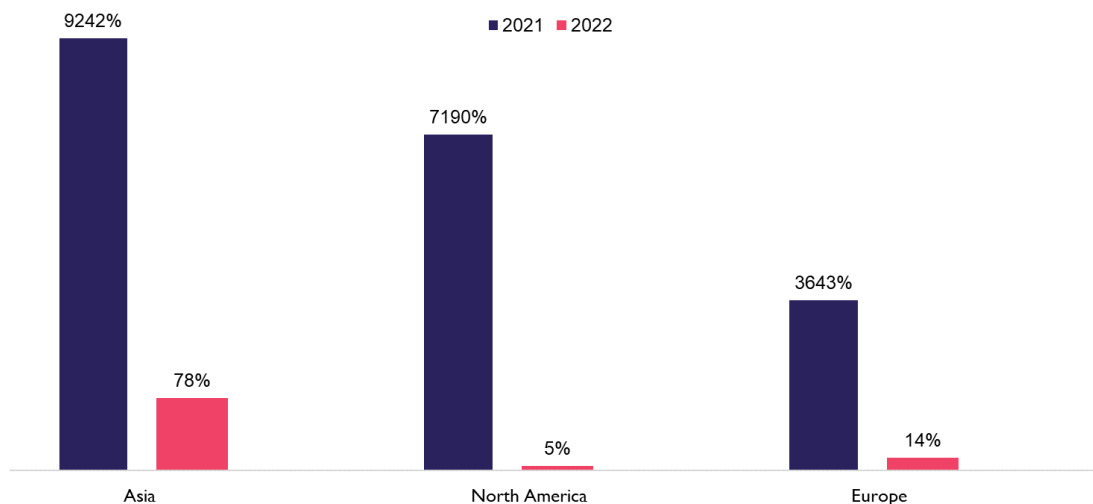
Source: The Block Research

North America is home to 39% of the total NFTs/Gaming projects. 330 out of 1,061 projects are headquartered in Asia.

The Meteoric Rise of NFTs/Gaming in Asia

%Growth in Amount Raised YoY

■ 2021 ■ 2022



Note: Scales of % Growth in 2021 and 2022 are intentionally different for visual clarity.

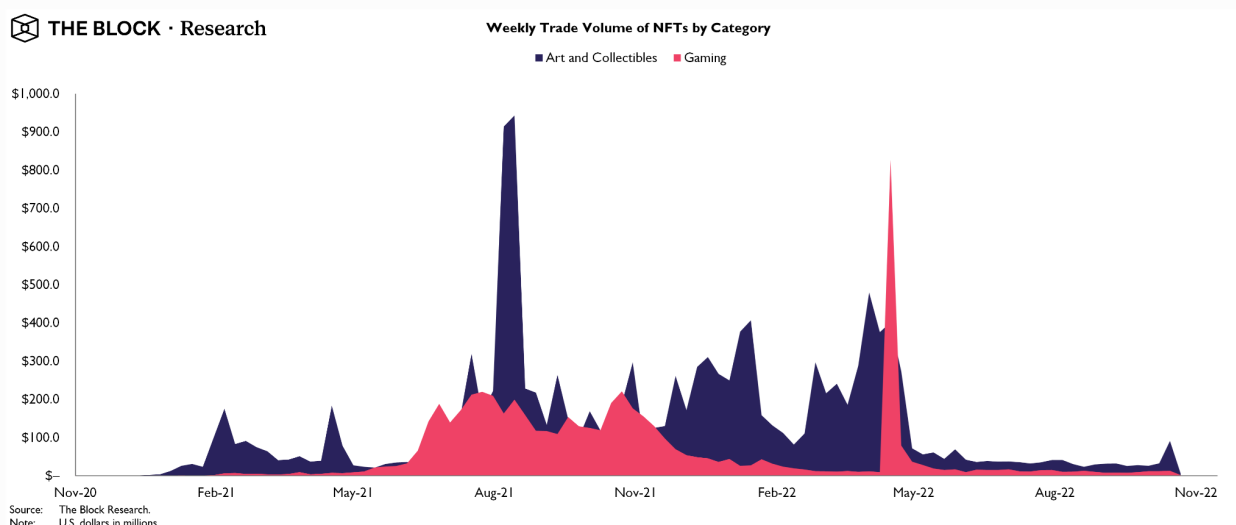
Asia has witnessed a massive boom in NFTs/Gaming since 2021, as the number of new projects founded in 2021 increased by 400% YoY. For the same year, the total amount raised YOY grew by an astonishing 9242%. The rise of Axie Infinity, a play-to-earn blockchain game, kickstarted

the NFT Mania in Asia and the rest of the world as the token value rose from \$0.25 to \$165 in the first half of 2021.

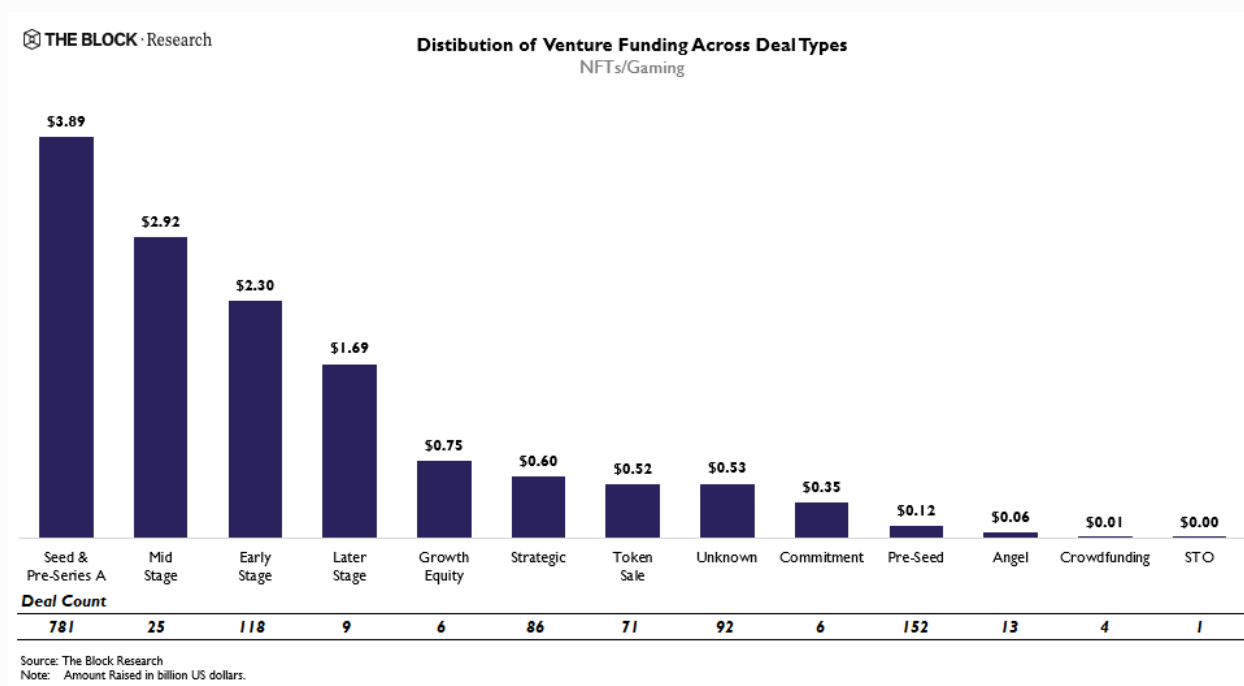
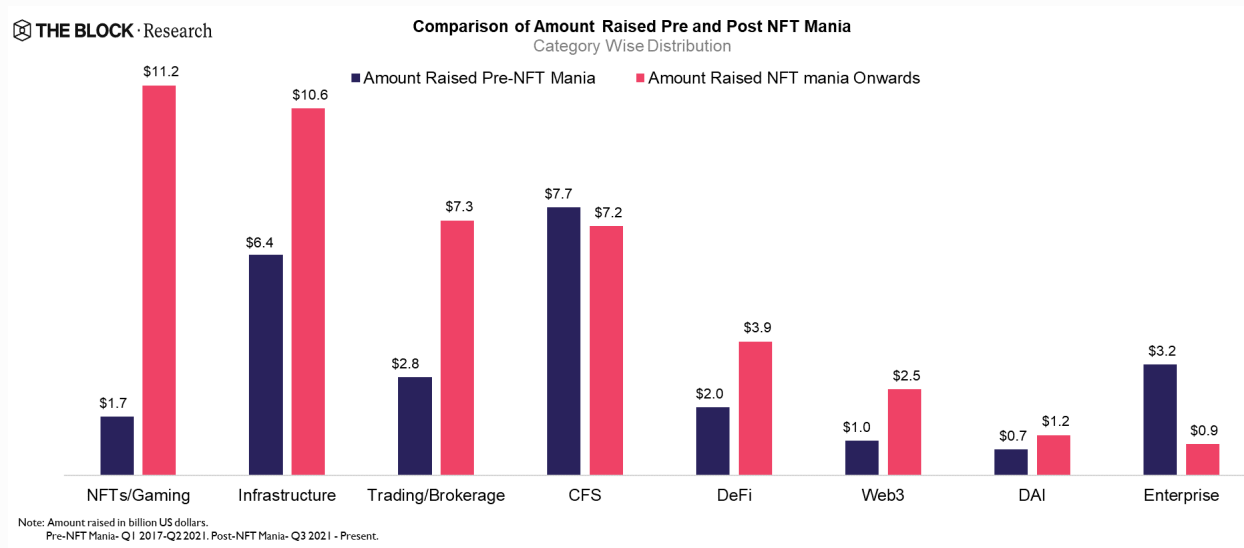
India has a population of 1.3 billion, and the game of cricket is followed religiously in the country. In an attempt to capitalize on the NFT bandwagon, investors were willing to bet on this untapped market, as two of the three most prominent digital NFT card collectible investments in the blockchain sector revolve around Cricket. Ratio, being built on Polygon, has raised \$120 million, and Fancraze, built on Flow blockchain, has raised \$117 million. It is safe to speculate that these projects will target Indian markets, as [90%](#) of Cricket's entire fanbase is from the Indian subcontinent.

Although NFTs/Gaming has only had one bull cycle as of this writing, it has already raised \$13.7 billion since 2017. Its funding dynamics are evolving at a brisk pace as it gained traction in 2021.

NFT space witnessed a trading volume of \$33 million in 2020. In 2021, the total value traded was \$13 billion, a staggering 42988% increase in trading volume YoY. The **NFT mania from the second half of 2021** onwards saw the historic \$29 million sale of Beeple's I/I artwork 'HUMAN ONE,' a \$24 million purchase of Cryptopunk #5822 by Deepak Thapliyal, CEO of Chain, \$3.4 million gold fur Bored Ape sale, etc.



NFTs/Gaming attracted funds at an unprecedented rate since NFT Mania began in Q3 2021. The category witnessed a 562% growth in the recent five quarters over the previous 16 quarters.



The NFTs/Gaming category raised the highest number of Seed & Pre-Series A rounds. 30% of all the Seed & Pre-Series A deals correspond to NFTs/Gaming.

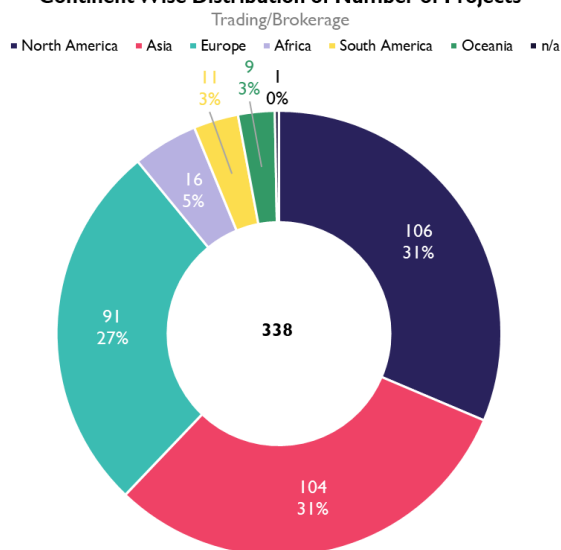
Trading/Brokerage

Except for Trading/Brokerage, the number of projects for other categories in North America is significantly higher than in other continents.

Asia and North America are home to 31% of the total projects each. 32% of the firms in Asia are located in Singapore, as the Monetary Authority of Singapore has had a favorable licensing framework for crypto companies.

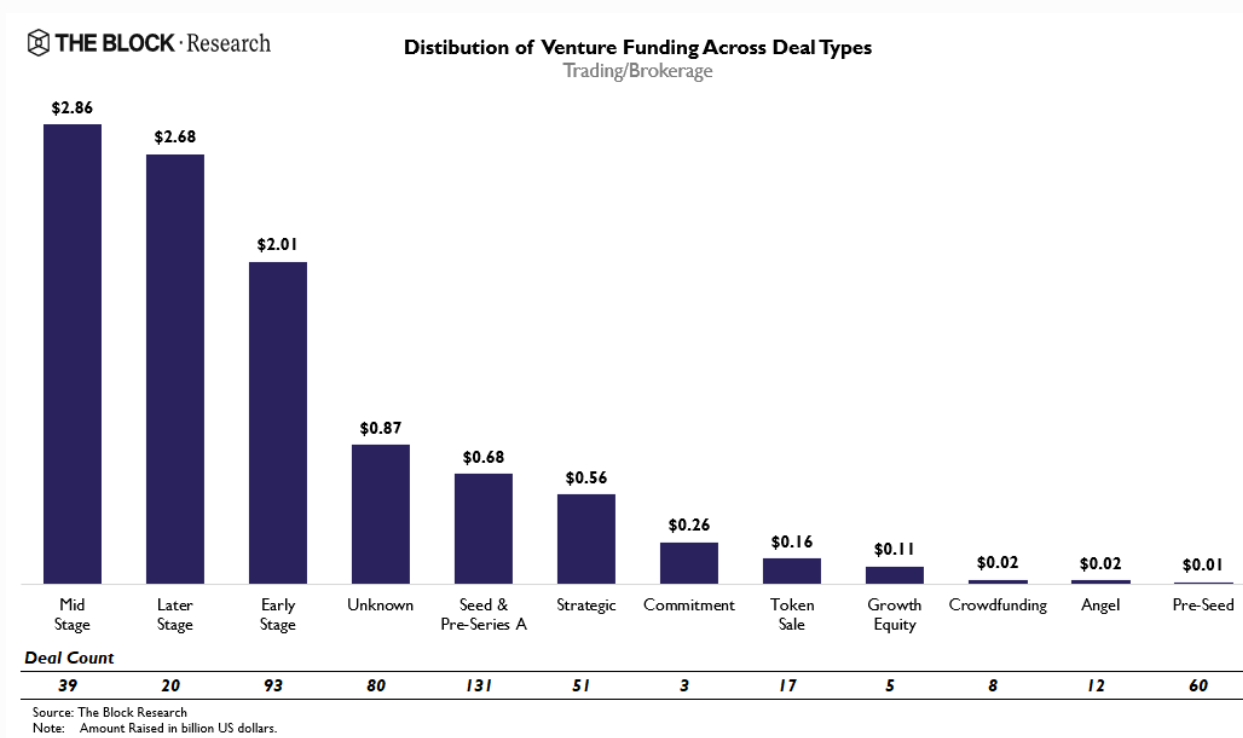
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Continent Wise Distribution of Number of Projects



Source: The Block Research

In Asia, exchanges like Coinswitch Kuber and CoinDCX from India, Pintu from Indonesia, and Matrixprot - a Singapore-based brokerage firm, have raised Mid or Later stage deals. These exchanges have developed consumer-centric products and services, creating a conducive environment for retail and institutional traders. Asian markets accounted for [43 percent](#) of global cryptocurrency activity between June 2020 and June 2021, with \$296 billion in transactions.



74% of the total amount raised and 30% of the total deal count for this category belong to maturation phase funding deals.

Binance, a centralized exchange, controls the spot markets, facilitating 67% of the total trading volume in 2021. Binance has expanded rapidly in Asian markets. Binance acquired an 18% stake in Singapore's securities exchange Hg Exchange. It intends to reestablish its presence in Thailand, having partnered with Gulf Energy Development PCL. In December 2021, Binance joined a new crypto hub established by the Dubai World Trade Centre Authority to assist crypto service providers in becoming licensed in the United Arab Emirates. The American counterpart of Binance raised \$200 million in 2022 to expand further.

However, FTX, a trading service platform more focused on derivative products, had benefitted the most from investors' insatiable appetites before they became insolvent. FTX has acquired \$1.8 billion of investments. FTX has expanded its global presence over the last three years. The company was valued at [\\$32 billion](#) at the start of the year, only to declare bankruptcy in November 2022.

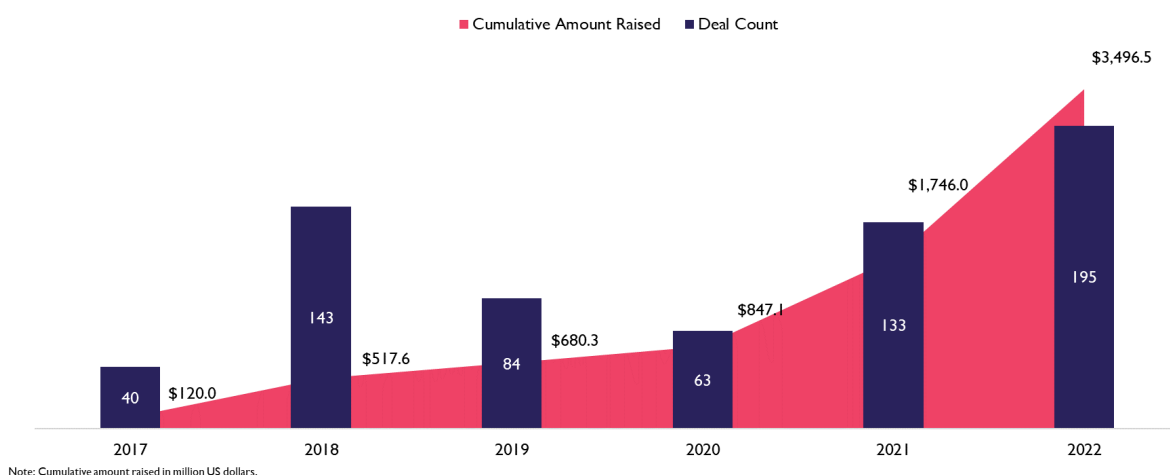
FTX and Alameda Research shutting down is arguably the black swan event which may have caused the industry a setback for a few quarters.

Web3

This category has seen a change in fortune in the last couple of years. It saw a 230% rise in 2018 during the ICO boom, only to plunge the following year by 59% in terms of the amount raised.

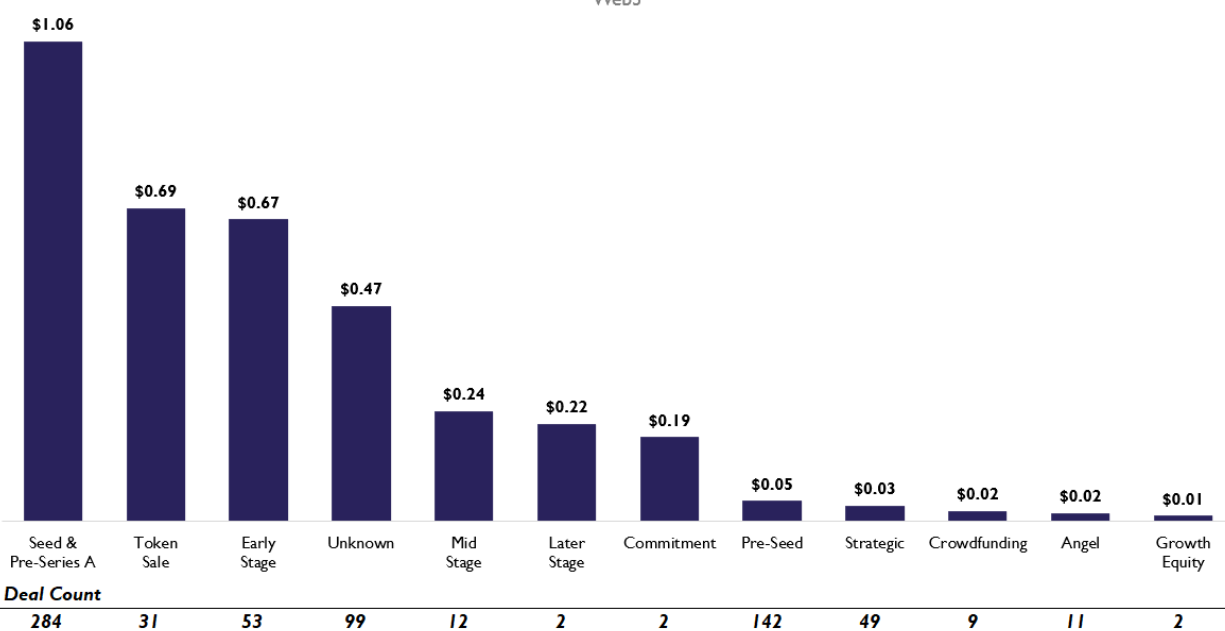
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Cumulative Amounts Raised and Deal Counts
Yearly Developments in Web3



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Distribution of Venture Funding Across Deal Types
Web3



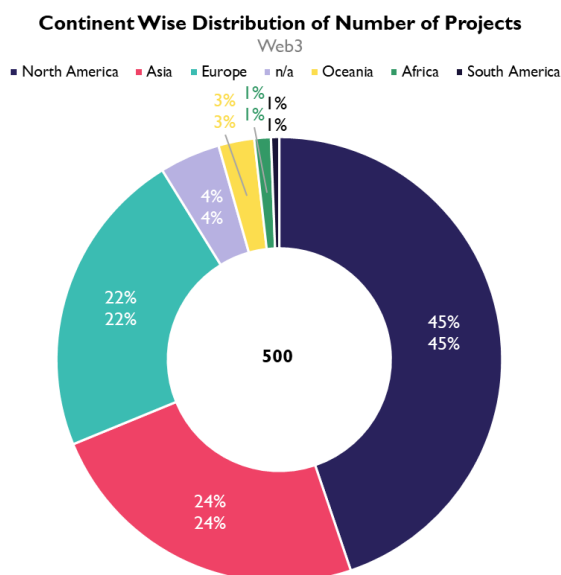
Source: The Block Research

Note: Amount Raised in billion US dollars.

Data Storage and Social Networks are the leading subcategories, as they contribute 57% of the total amount raised by the category.

61% of the total amount is attributed to the Pre-Seed and Seed & Pre-Series A level. Web3 has recorded only 2 Later Stage deals, which conveys the scope for growth in this category.

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Source: The Block Research

45% of the projects in the Web3 category belong to North America.

Africa, Oceania, and South America contribute to less than 9% of the projects classified under Web3.

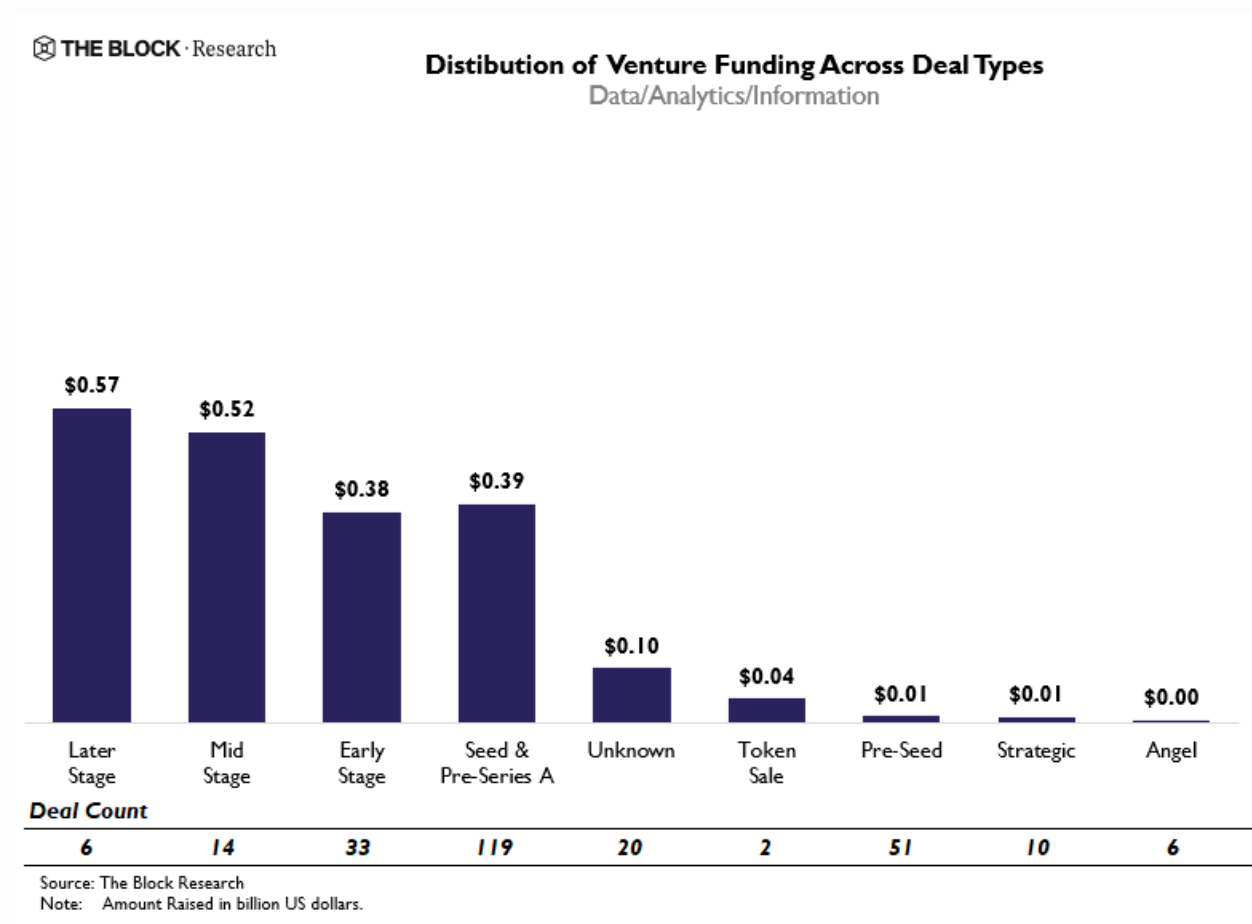
Helium, a peer-to-peer wireless infrastructure that provides connectivity for the Internet of Things (IoT) devices powered by the Helium blockchain, has raised \$326 million from a16z, Tiger Global, Multicoin Capital, etc., which involves two later-stage deals.

Web3 will flourish in a developed infrastructure that allows a multichain presence of a protocol, interoperability of tokens with various blockchains, and cross-chain bridging of assets. Such infrastructure was relatively underdeveloped in 2018-2019. Cross-chain protocols like Axelar

and DeBridge are trying to establish this infrastructure layer. They are decentralized network and tool providers that help to connect dApp builders with multiple blockchain ecosystems, applications, and users for frictionless cross-chain communication.

In the last three years, the amount infused and deal count have increased steadily every year.

Data/Analytics/Information (DAI)



29% of the total amount raised was attributed to Later Stage deals. Four out of these six Later Stage deals were attributed to Chainalysis.

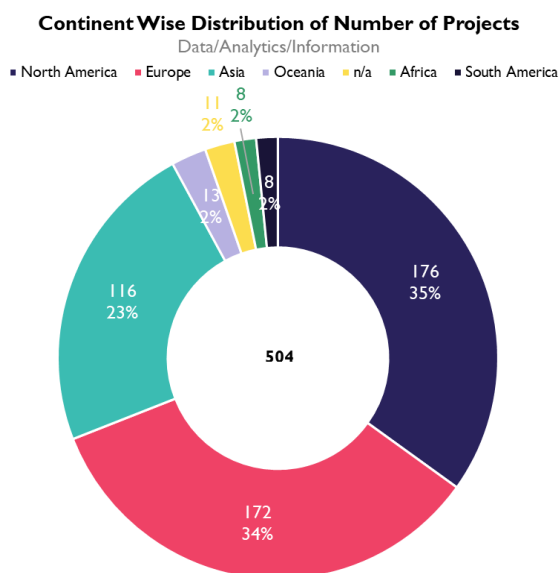
Chainalysis, a blockchain analytics & surveillance company that helps government and private agencies to analyze cryptocurrencies for compliance, education, and investigation, dominates the funding landscape for the category. **Chainalysis has raised \$535 million, 27% of the total amount raised by the projects in this category.**

Interestingly, this is the highest % contribution by a single entity to the capital injection into its category.

48% of the total deals raised fall under the Market Data/Analytics subcategory. However, it only contributes \$570 million out of the \$1.9 billion raised by DAI. The Chain Analytics/Compliance subcategory contributed to only 30% of the deals but has raised an impressive 59% of the total.

Nansen, TRM Labs, Elliptic, and Solidus Labs are a few of the other noticeable companies classified under Chain Analytics/Compliance that have raised more than \$80 million each.

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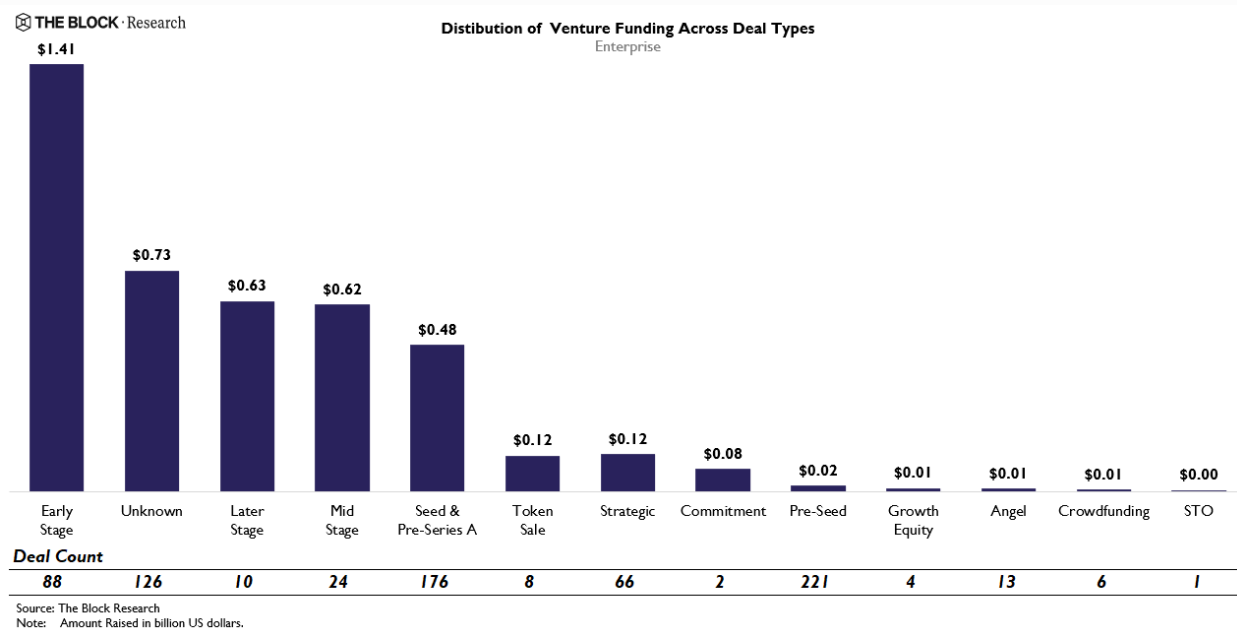


Source: The Block Research

The Block Research did not observe any South American or Oceanian projects classified under this category.

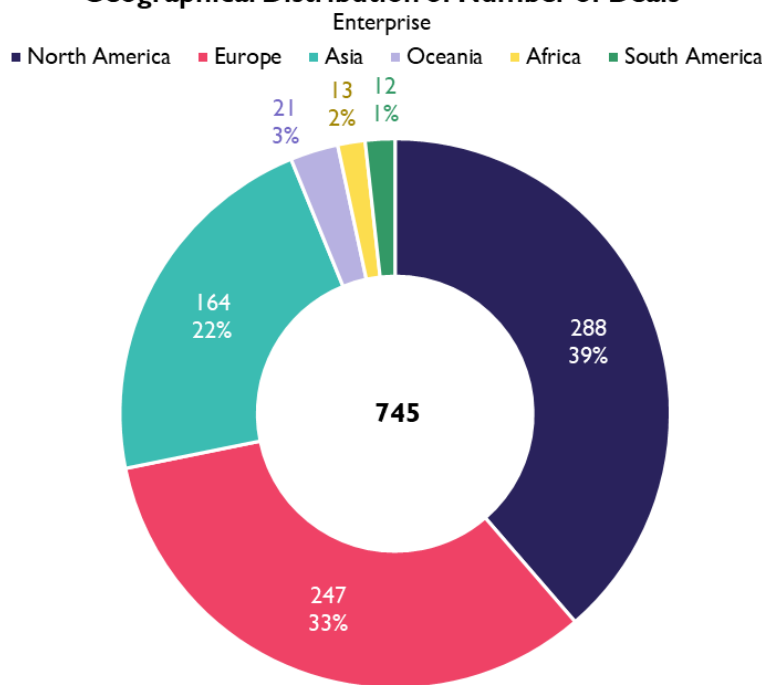
Enterprise

It is the only category of projects which raised more deals during 2017-2019 compared to 2020-2022. During 2017-2019, companies wanted to utilize permissioned private blockchains as the 'Blockchain, not Bitcoin' narrative picked up the pace. Back then, it was a trend to bring out utility tokens and include the 'blockchain' buzzword in the business model, which led to a significant uptick in investments. 60% of the deals were raised in the 2017-2019 period.



88 Early Stage deals contribute to 33% of the total amount raised corresponding to Enterprise. This category corresponds to the highest count of Pre-Seed deals. 53% of the deals have occurred in Pre-Seed and Seed & Pre-Series A rounds.

Geographical Distribution of Number of Deals



Source: The Block Research

According to The Block Research's database, 176 projects are located in North America, and Asia corresponds to 171.

Out of the \$4.2 billion raised by the Enterprise category, Distributed Ledger Technology projects have raised \$2.3 billion. Two of the most significant raises in the Enterprise category are attributed to DLT projects that raised money after the 2017 bull run. OneConnect, a fintech solutions provider in China, raised \$650 million in a Series A round. Hyperchain, a Chinese company that develops enterprise-grade solutions based on its Hyperchain blockchain platform, raised \$234 million in a Series B round.

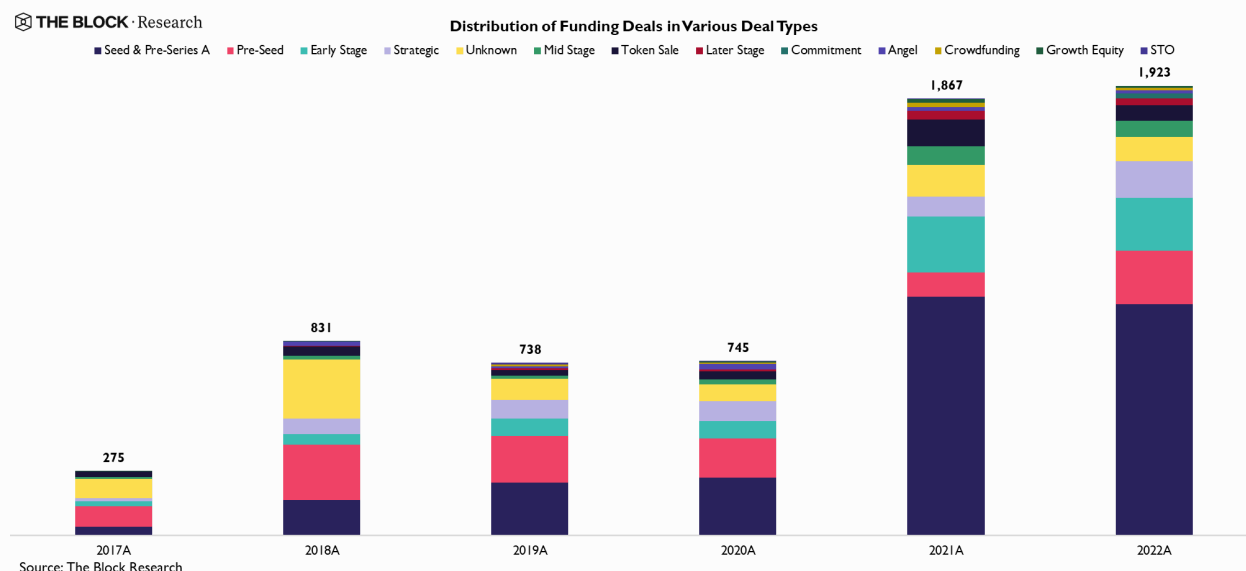
A peculiar trend regarding Chinese projects' contribution to the Enterprise category is observed. The enterprise category in total has raised \$4.1 billion, and China is the highest contributing nation along with the United States, as both contributed \$1.3 billion. **50% of the total investment in China has occurred in the Enterprise category.**

6

Miscellaneous Funding Trends

Miscellaneous Funding Trends

Analysis Based on Deal Count

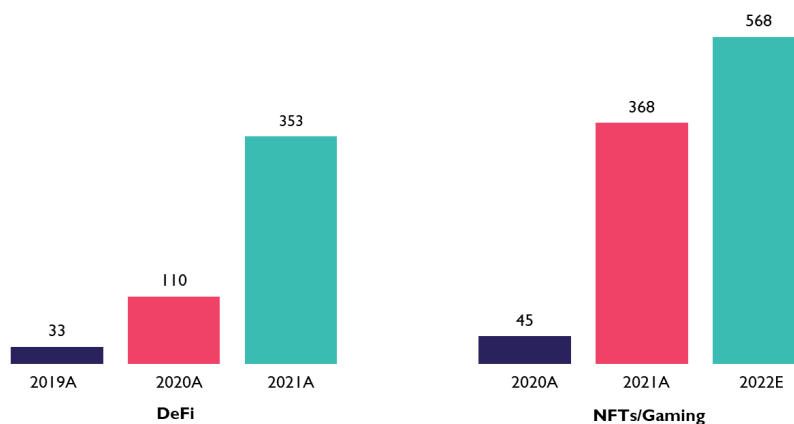


Investment trends across all categories are cyclical. As discussed, funding deals are a lagging indicator of the sector's health. The 2017 boom was followed by a 200% rise in deal count, whereas the 2020 bull run saw a 150% rise. In 2022, 1,923 deals have been raised as of this writing, the highest deal count in a calendar year.

A growing interest in a particular market category leads to more developers entering the space, thereby increasing the number of projects entering the field. By proxy, the number of deals in the infancy stage rises. We consider Pre-Seed, Seed & Pre-Series A, and Strategic deals to be the '**Infancy Stage**' deals of the projects.

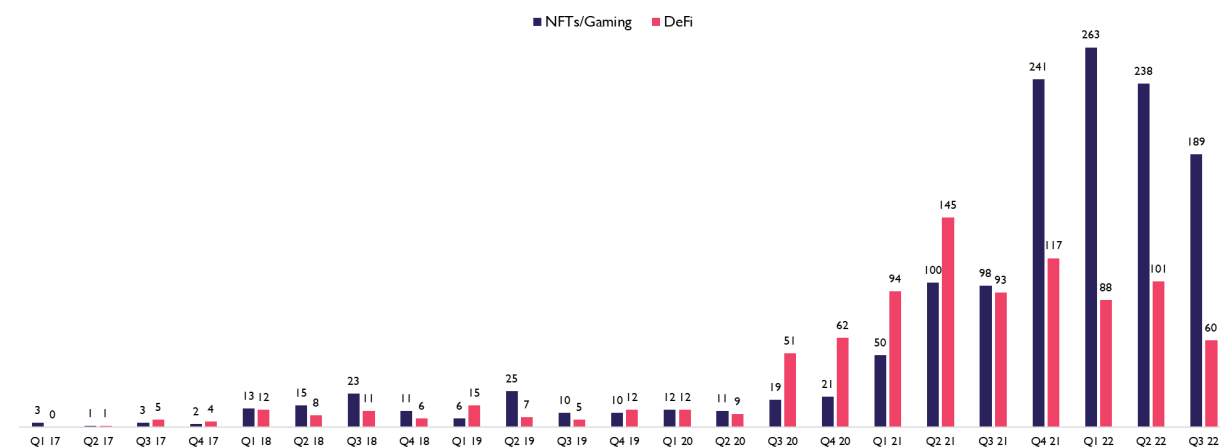
This trend can be observed in DeFi during 2019-2021 and NFTs/Gaming during 2020-2022. DeFi narrative picked up in 2020, and NFTs blasted off in 2021. One year prior to and post the narrative development are considered for this comparison. The number of deals in DeFi increased by more than 11x concerning Infancy Stage deals as the introduction of liquidity mining by Synthetix, the rise of Uniswap, the staggering growth of YFI, etc., helped build the DeFi composability narrative.

Number of Infancy Stage Deals Raised
for DeFi and NFTs/Gaming Categories



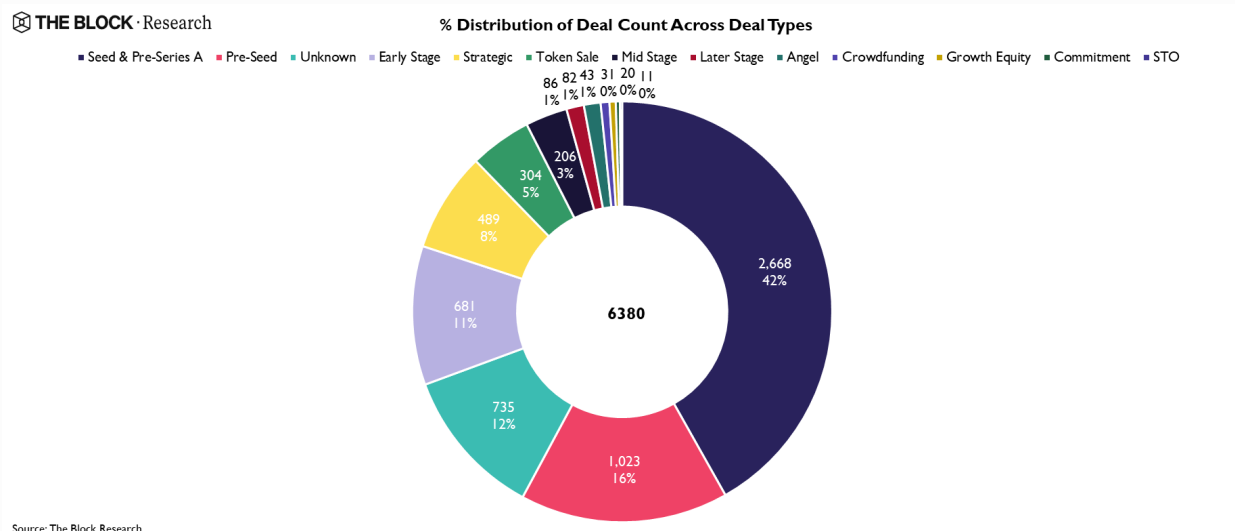
Similarly, the rise of Axie Infinity, Facebook joining the metaverse bandwagon, and the cheaper LI alternatives for high-volume in-game transactions led to a boom in new NFTs/Gaming projects during 2020-2022. During this period, yearly deals in the infancy stage rose from 45 to 568.

DeFi vs NFTs/Gaming: Comparison of Number of Deals
Since 2017

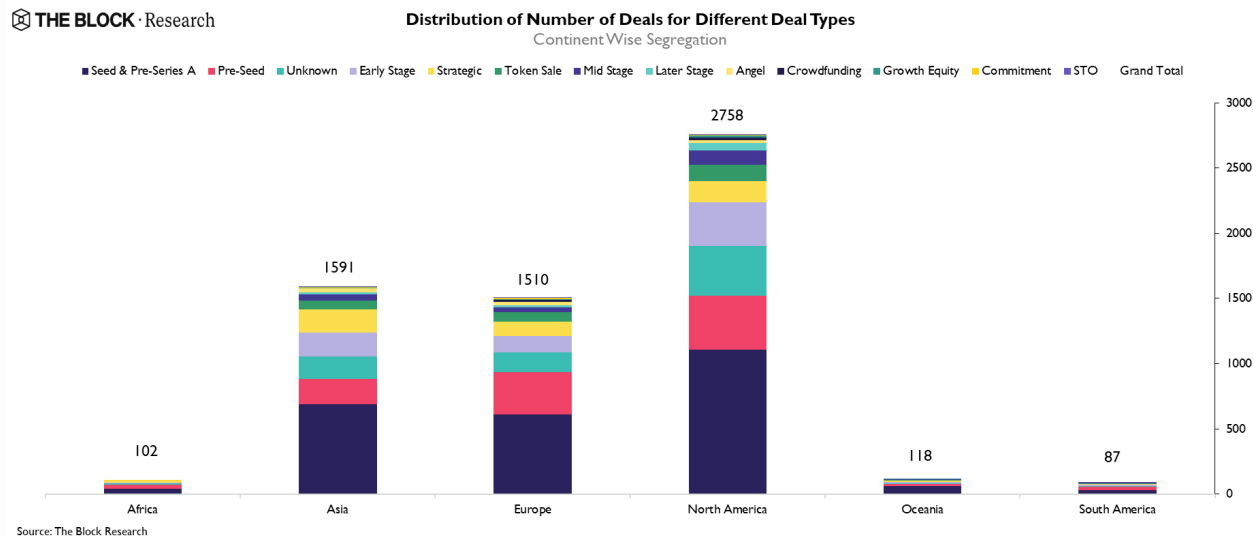


Source: The Block Research

In the last six quarters, the exponential growth of deal count for DeFi was replaced by NFTs/Gaming.



42% of the total deals in the sector recorded since 2017 are at the Seed level. 1,023 deals occurred in the Pre-Seed rounds. Early Stage deals have risen in the last two years, as 66% of Early Stage deals have occurred since 2021.

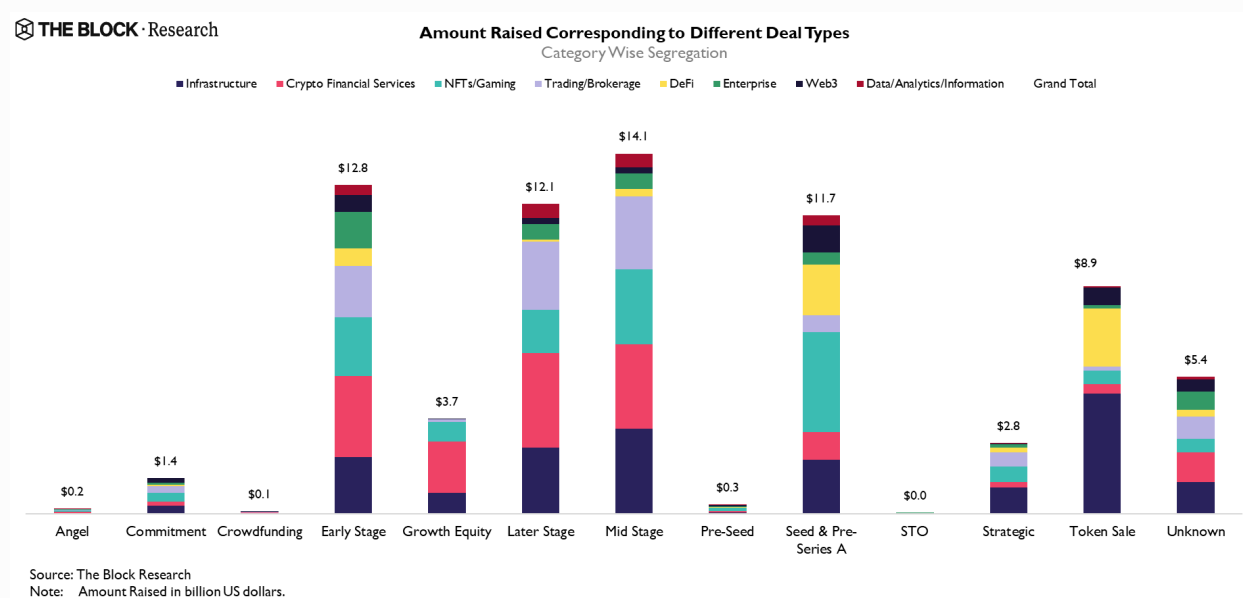


Aligning with every trend we've noticed until now, North America is the frontrunner for most deals concerning deal counts. North America contributes to 65% of the Later Stage deals, the highest % of the total deals of a specific deal type for any continent.

However, Asian projects lead in attracting angel investment rounds. 27 out of 82 Angel rounds are attributed to Asia. India-based Polygon raised an Angel round in May 2021, which was participated by Mark Cuban. Alan Howard, the co-founder of Brewan Howard Digital, has invested in two Hong Kong-based firms: Kikitrade, a trading platform, and OrBit Markets, a liquidity provider and a market maker.

Asia also leads in the number of strategic rounds, witnessing a massive rise of 775% in strategic deals in 2018. 35% of the total strategic rounds belong to Asia.

Analysis Based on Amount Raised

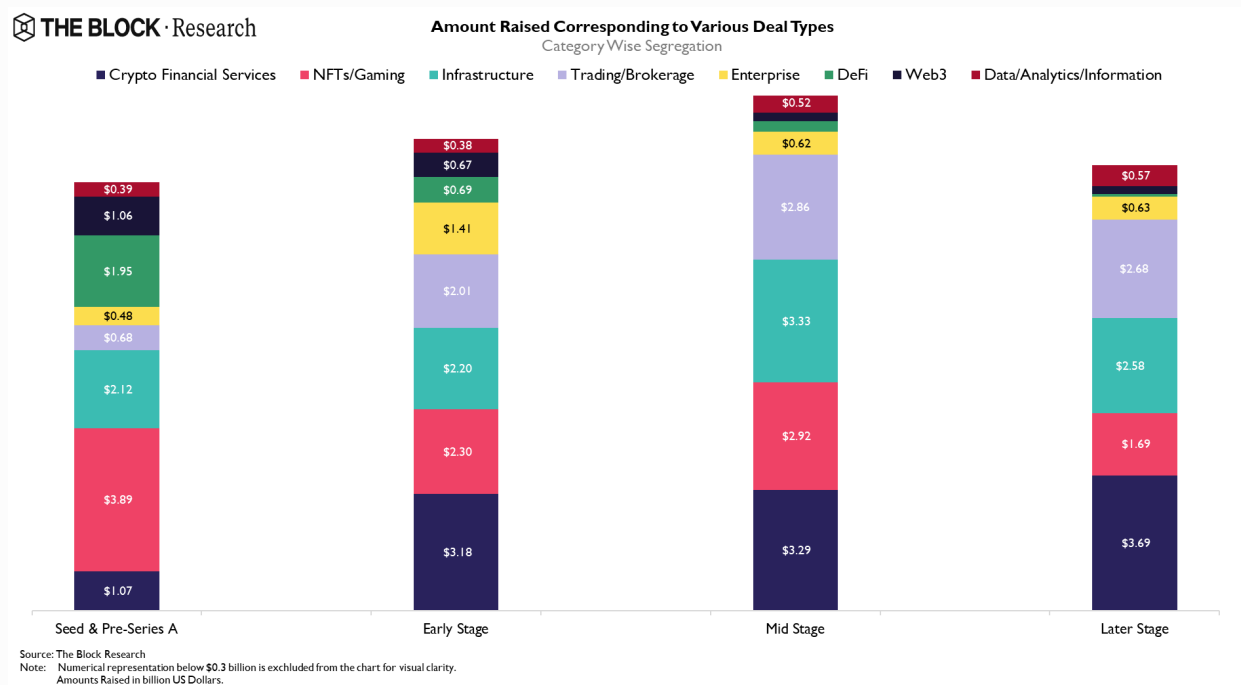


The digital asset sector has raised \$73 billion in the last six years, with maximum capital injected in Mid Stage rounds.

\$14.1 billion was raised in 207 Mid Stage rounds. Apart from FTX's swashbuckling \$900 million Series B raise, Forte had a huge Mid Stage raise of \$725 million led by Sea Capital and Kora Management.

88 Later Stage deals have been executed with an average amount of \$149.2 million. Fireblocks, an asset management firm that offers custody and a settlement platform, raised \$550 million in

a Series E round. Notably, the Fundamental Categories contributed 68% of the Later Stage deals.



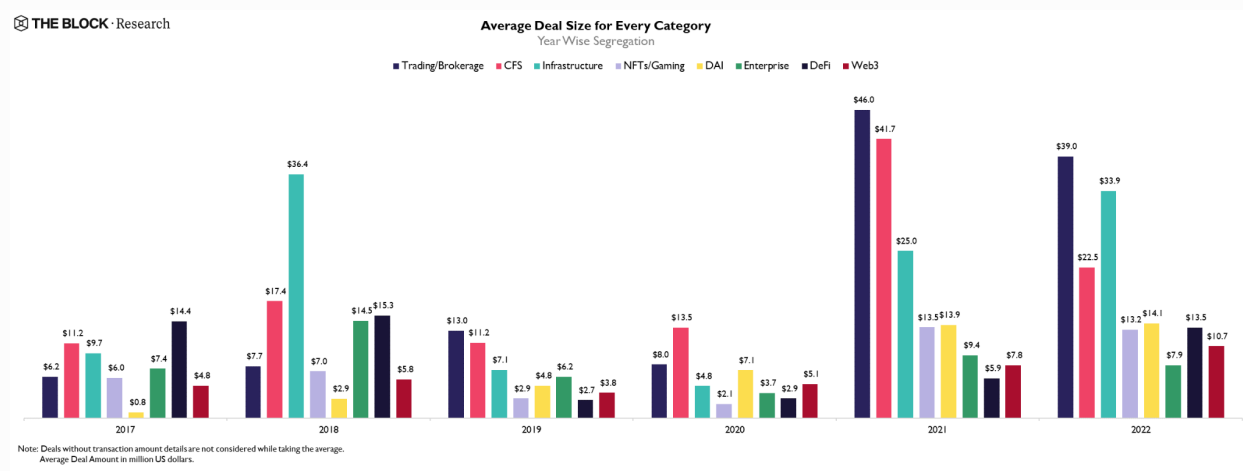
The recent wave of interest in NFTs/Gaming steered maximum Seed rounds to the category. \$3.89 billion has been raised by projects classified under NFTs/Gaming in Seed rounds. The category has raised 781 Seed & Pre-Series A deals, and a staggering 724 out of those have been raised since the start of 2021.

CFS has raised the maximum amount in the Early Stage, Mid Stage, and Later Stage deals. Infrastructure projects have consistently raised across deal types in all the years, making it the category least affected by bear markets.

What May the Future Have For Us?

Another reason for the segregation of projects into various categories was to analyze projects of specific types and gauge the possible fate the future holds for projects and the categories it is classified under. Usually, an investor's capital injection in a company will correlate with the state of the category the company identifies with. The occurrence of variations in the investment trends for a category is often an indicator of a change in the category's development status or its perceived notion. The variation could result from a change in community sentiment, technological development, regulations, etc. Whatever the cause, the evolution of the investment trend can point us to what the market may have for us in the future. **The Block Research maintains that the inferences made are purely speculative.**

The yearly trend of the average deal amount of a particular category can be a helpful metric for analyzing its development phase.



The average deal size of the blockchain sector is \$15.2 million. Fundamental Categories record the average deal size above \$15.1 million, courtesy of the growth in Mid and Later Stage deals since 2021.

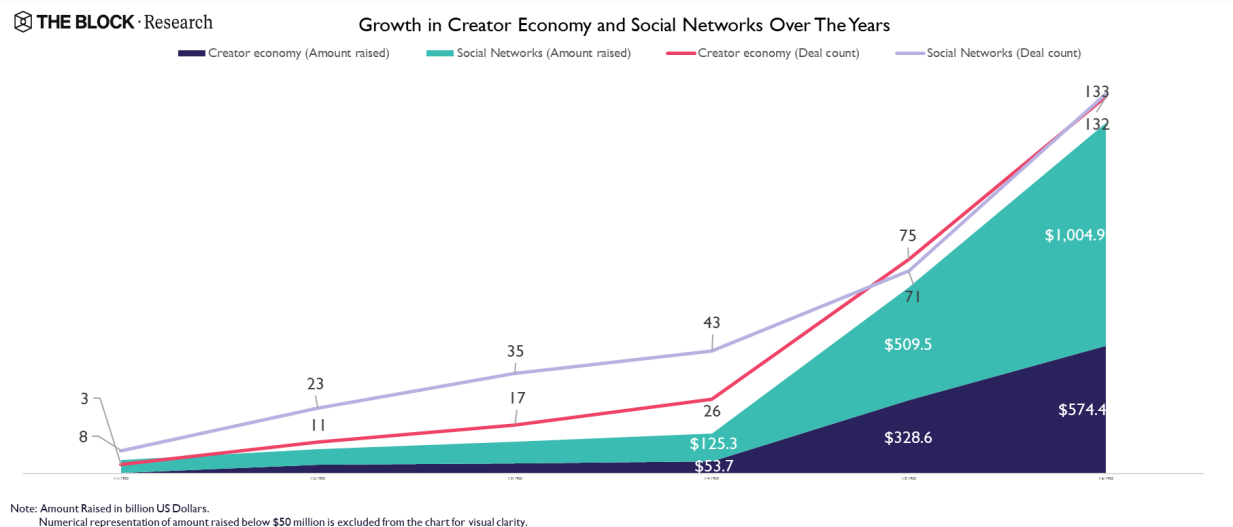
The average deal size of Data/Analytics/Information between 2017-2019 was \$2.3 million. However, data analytics platforms have caught the attention of venture firms over the last two years, as the average deal amount since 2021 is \$13.9 million.

Crypto.com's Crypto Market Sizing [report](#) from January 2022 found that the number of cryptocurrency owners worldwide rose from roughly 106 million in January 2021 to 295 million in December 2021. As the number of users increases, there is an increasing need for efficient data scraping, visualization, analysis, and surveillance.

Most users are introduced to cryptocurrencies through centralized exchanges, as [93%](#) of the trading volume in 2021 was facilitated by centralized exchanges. A rise in the user base increases the requirement for market surveillance and compliance, which may provide new opportunities to upcoming entrants in the DAI category. A notable deal in DAI was a \$45 million raise by Solidus Labs. Solidus Labs is an automated market surveillance and risk monitoring platform for digital assets that offer solutions to exchanges, crypto-financial services, and government agencies.

Consequently, growing on-chain interaction can also be expected with the rise of L1s competing against Ethereum and Layer 2 solutions. On-chain compliance regulation and analytics firms also have gained more attention as the last twelve months have seen a few of the largest investment rounds in DAI, led by companies like Chainalysis, Nansen, and Dune Analytics.

Such developments create opportunities for new entrants in Data analytics and, consequently, for venture capitalists, as it offers a chance to make potentially lucrative investments in a potentially booming sector. We see Data/Analytics/Information category playing a more significant role in the further development of the digital asset sector.



Per our category segregation, growth in decentralized creator economy would point to growth in subcategories hailing from NFTs/Gaming and Web3. We consider monetization platforms of NFTs by artists and creators as “creator economy”- “NFTs/Gaming.” Social networks would fall under the “Web3”.

The Creator economy will be an exciting theme in the next few years. In the age of web2, creators are usually at the mercy of traditional media platforms. More often than not, the revenues and the royalties generated by content creators are siphoned away from them by centralized multinational social media conglomerates, which could disincentivize many interested people to consider a transition from a part-time hobby to a full-time passion.

In 2021, Spotify paid \$7 billion to the creators, \$636 on average. YouTube distributed \$15 billion to creators, an average of \$2.47 per channel. Meta, which infamously has decided to charge an egregious [47.5%](#) fee to metaverse sales, paid a paltry \$0.1 per user, per a report from [a16z](#). In stark contrast, Ethereum distributed \$3.9 billion, meaning creators have generated \$174,000 per user. Of course, the amount is heavily influenced by the NFT Mania and the disparity in the number of users of Spotify, YouTube, and Meta, which are in millions as opposed to a mere 22,400 artists on Ethereum.

There is merit in noting that creators and marketplaces will have the freedom to choose the minting and royalty fee along with the revenue distribution model, no matter on which blockchain they establish their presence. The ability to monetize their own work through

on-chain activity is one of the reasons that attracted creators to NFTs. This independence may also inspire creators to morph their business models from ad-focus content to more authenticity.

Moreover, centralized platforms also have allegedly [discriminated](#) against marginalized communities. If the President of the United States can be banned from a social media platform, censoring an ideology, a group, or even a race from the platform is not a far-fetched scenario. Media platforms with more degree of decentralization in power concentration may be a boon to creators and consequently to the users as the era of Web3 dawns upon us.

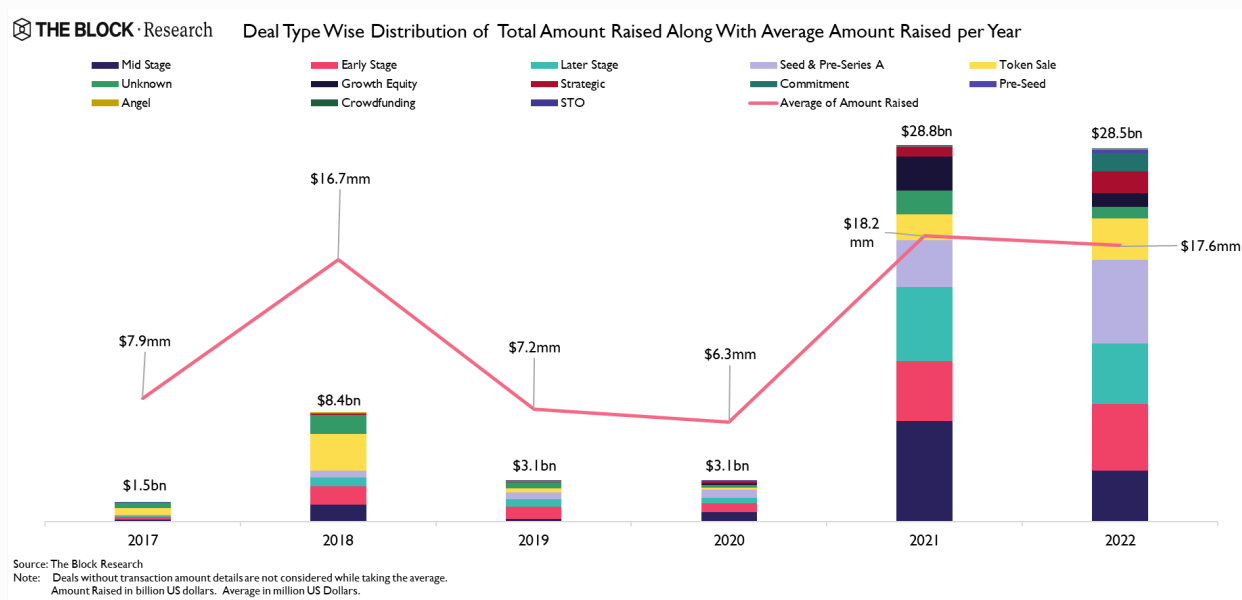
Nevertheless, Web3 will also witness its [challenges](#), and decentralized platforms may also surprise us with iconoclastic approaches, such as the enforcement of marketplace royalties on secondary sales. Royalties are technically not enforceable on-chain but are a social construct that can only be honored on the marketplace level. In the battle to increase market share and trading activity, marketplaces are reducing royalty fees and increasing trading functionalities. Sudoswap was the first to bypass creator fees altogether and was followed by X2Y2. Recently, Magic Eden, the largest decentralized NFT marketplace on Solana, decided to make the creator royalty fees [optional](#) for traders in response to depleting market share. However, OpenSea has taken a different route to tackle the depleting market share by the [launch](#) of an on-chain royalty enforcement tool that is aimed at re-establishing royalty payments as the norm for creators- thereby potentially attracting various NFT market

Venture capitalists' investment trends indicate a rising interest in the creator economy. DeSo, Nation, Farcaster, and Braintrust are decentralized alternatives for the social, professional, and talent acquisition networks, respectively, which have already raised upwards of \$100 million each. Royal, All Saints Music Group, One Of, are a few of the active creator economy platforms building music NFTs that have raised upwards of \$50 million in investments.

NFTs have been the most talked about crypto theme in recent times. NFT as a concept can offer multidimensional utility. A Yuga Labs metaverse NFT, be it a CryptoPunk, a Bored Ape, or a Doodle, can be considered a blue chip asset. A Starbucks digital stamp could be ventured as the blockchain gamification of brand immersion. On-chain tokenization of real-world assets, NFT-based financial applications, digitization of event tickets to mitigate ticketing issues, blockchain gaming, etc., are various potential use cases that NFTs currently exhibit.

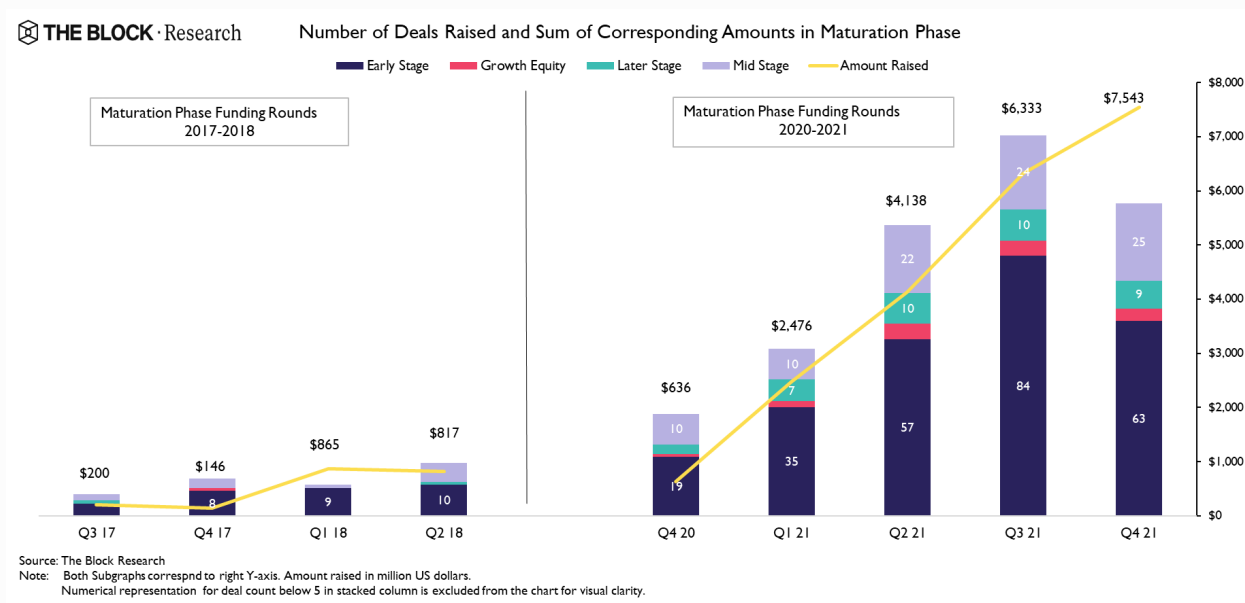
Growth in user adoption is the harbinger of proliferation for these various sectors mentioned in this section. Consequently, the user base growth hinges upon on-chain infrastructure development, lowering transaction costs, and seamless asset interoperability.

Web3 and NFTs possess the capacity to unlock higher revenue potential and greater transparency for artists and creators. If the competitive multi-chain landscape improves user experience, investments into NFTs/Gaming and Web3 projects may see growth in the near future as more mainstream artists and content creators may embark upon their web3 journey.



Almost nonexistent Early, Mid, and Later Stage deals in the digital asset sector until 2020 were noticeable in 2021 and 2022. A rise in the deal count for these deal types increased the average deal size (\$) for the respective years. The average deal size in the blockchain sector increased from \$6.3 million to \$18.2 million from 2020 to 2021.

During the euphoric bull run of 2017, the amount raised skyrocketed in Q1 2018, mainly due to growth in Token Sales and Early Stage deals where the TON blockchain Token Sale of \$1.7 billion was the primary catalyst, followed by a \$650 million Early Stage raise by OneConnect, a company offering DLT-based digital infrastructure solutions for fintech companies.



The dynamics of the Maturation Phase funding rounds changed in the 2020 bull run. The number of deals in the Early Stage, Mid Stage, Later Stage, and Growth Equity raised significantly. During Q4 2021 alone, these deal types added a staggering \$7.5 billion.

7

Blockchain-Specific Analysis

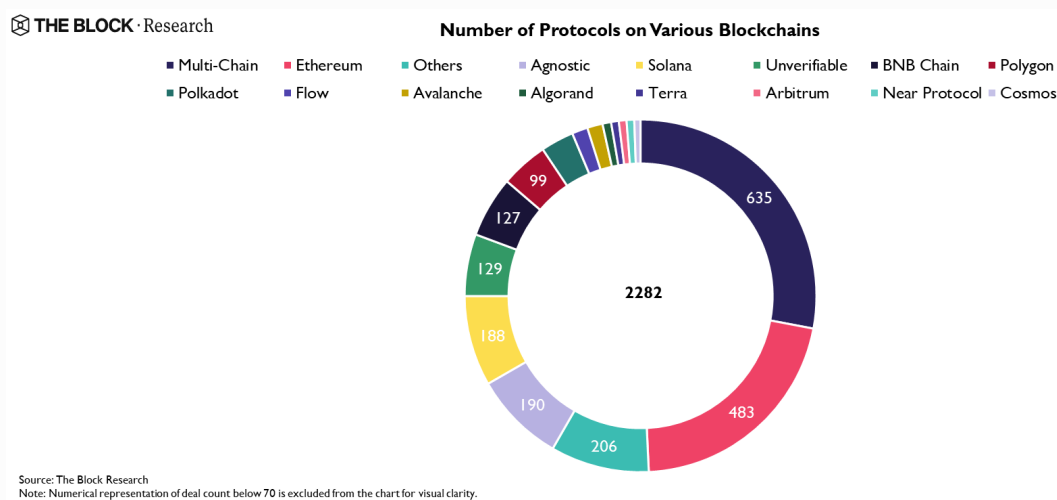
Blockchain-Specific Analysis

This section will dive deeper into investment trends in various blockchain ecosystems. DeFi and NFTs/Gaming are the categories we will consider since the rest contain low on-chain user activity, private blockchains, or centralized conglomerates. Consequently, all the inferences are drawn based on data from the projects belonging to these two categories.

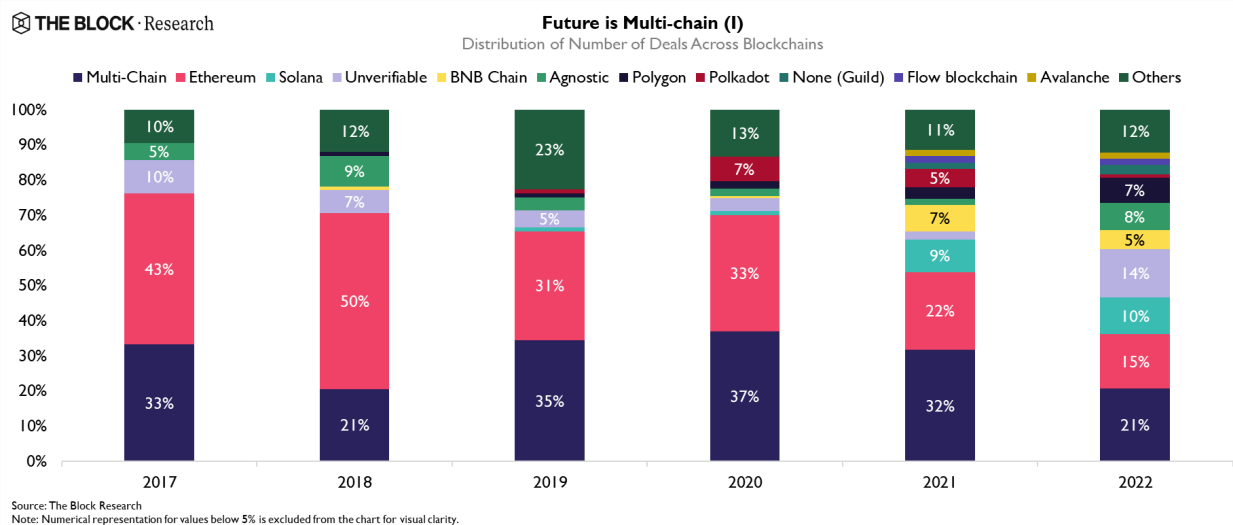
The identity of the blockchain is irrelevant to some projects. These projects are considered under the 'Agnostic' label. Game studios, NFT platform infrastructure developers, etc., may be classified as Agnostic.

There will be certain protocols for whom blockchain will be unverifiable. Blockchain games, NFT arts, collectibles, decentralized exchanges, etc., may fall under the 'Unverifiable' label.

Future is Multichain

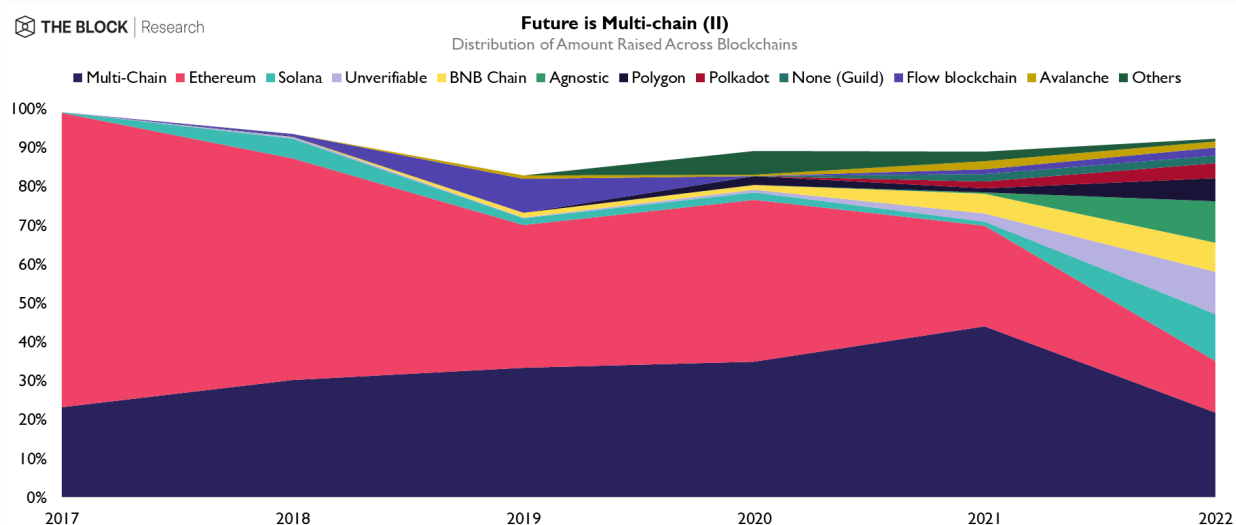


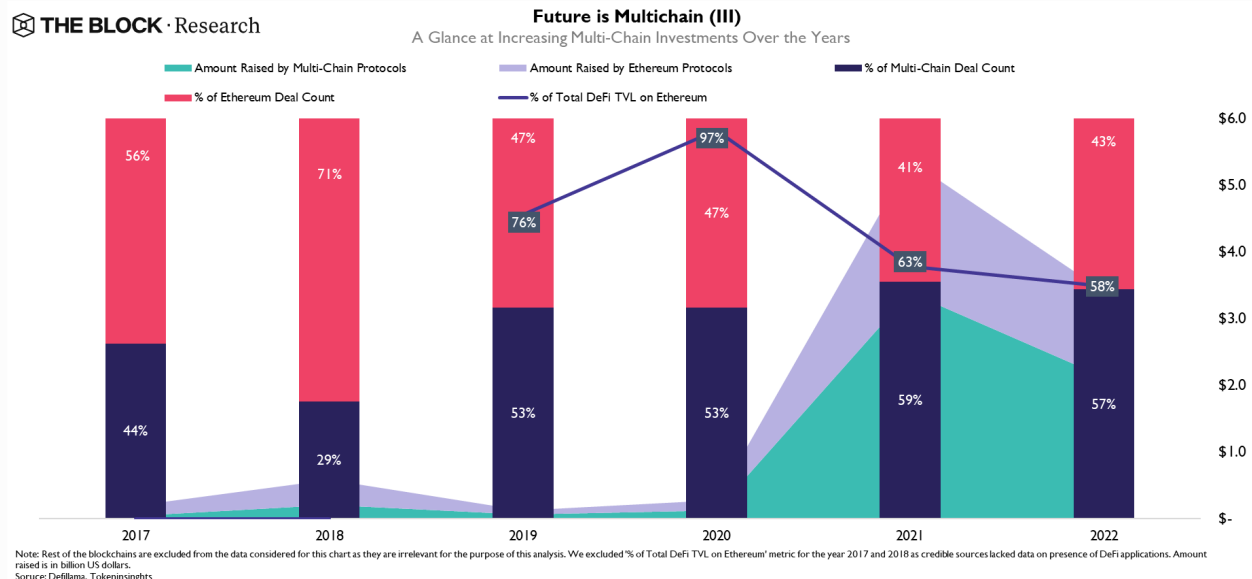
2282 projects have raised money since 2017 totaling \$18 billion. Since the monumental DeFi summer, the decentralized financial applications gained some user confidence, further percolating into blockchain gaming and NFT projects. The infamous rise in gas fees caused more and more applications to consider other smart contracts as their base layer. Blockchains like Solana, BNB Chain, Polygon, Avalanche, etc, are being considered by newer projects.



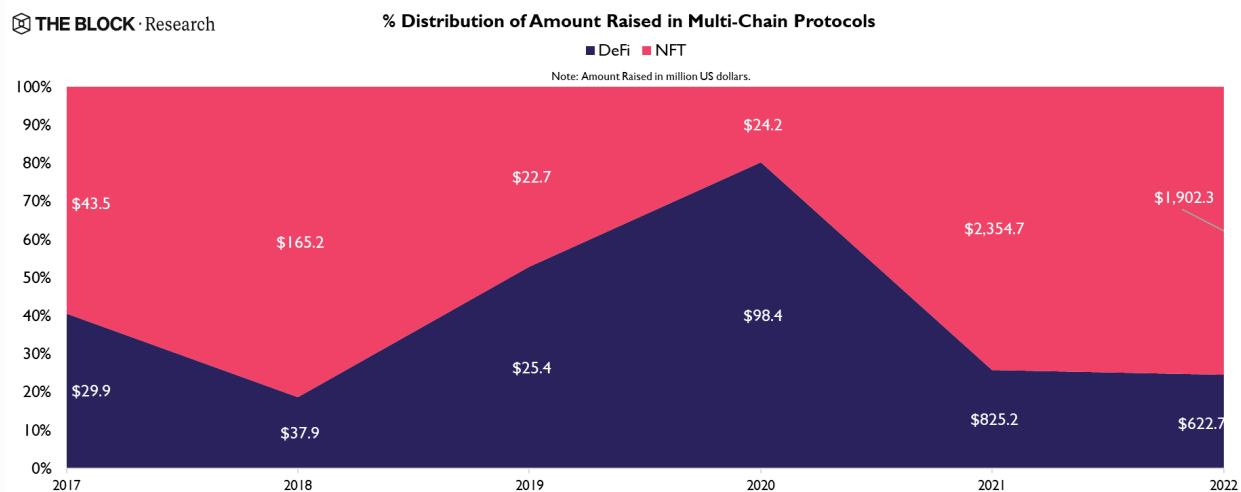
However, the future seems to be multichain with improving infrastructure for asset interoperability. In the last two years, Multichain projects have raised the highest number of deals, dethroning Ethereum.

According to HashKey Capital, projects are also considering deploying in multiple chains in order to capture users and liquidity from those chains. Out of the top 100 DeFi projects by TVL, 41 of them are multi-chain.

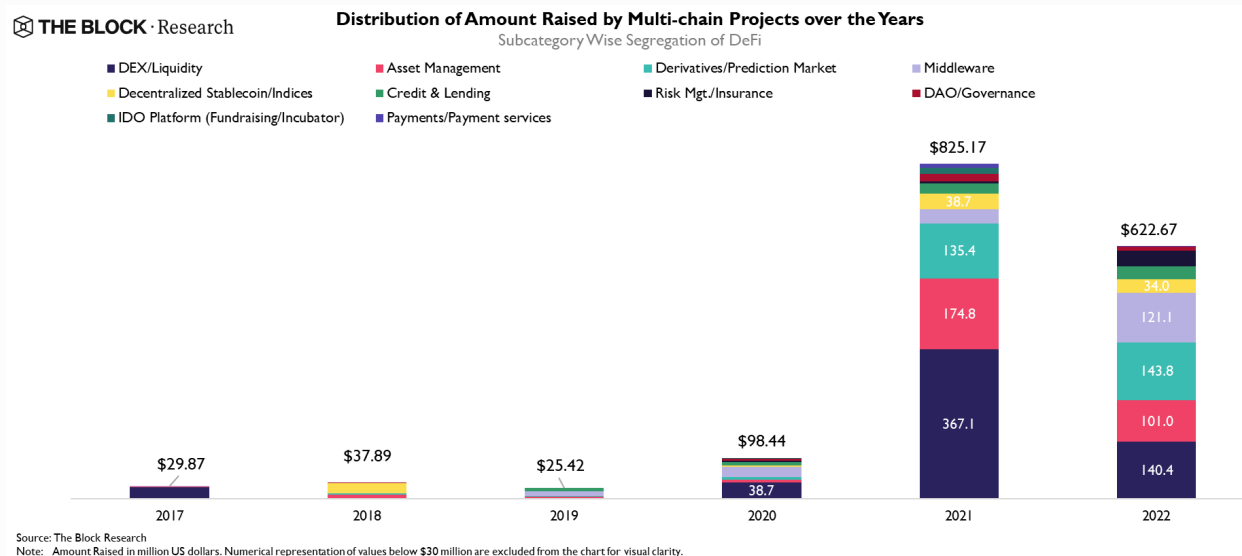




Since 2021, Multichain projects also led the way regarding the total amount raised. 92% of the total multi-chain investments have occurred since 2021. In 2022, Polygon, Solana, Flow, and ImmutableX have also gained momentum since the 2020 bull run.



In 2020, multi-chain investments in NFTs/Gaming rose by 6% YoY, but DeFi observed a 393% growth as investments grew from \$25.4 million to \$98.4 million, courtesy of the DeFi Summer.



Protocols that offer some incentive to bridge assets from one blockchain to another pulled user engagement and, consequently, investments. DEXes and Derivatives protocols with interoperability mechanisms offering financial applications for wrapped tokens attracted more investment in DeFi than other subcategories.

Similarly, protocols related to blockchain gaming which may prefer a multi-chain presence, have raised significantly more investments than other subcategories. Such protocols may prefer a multi-chain presence for various reasons like increasing adoption, token economics management, separating in-game transactions from the main chain to improve scalability and affordability for users, etc.

The Ethereum Supremacy

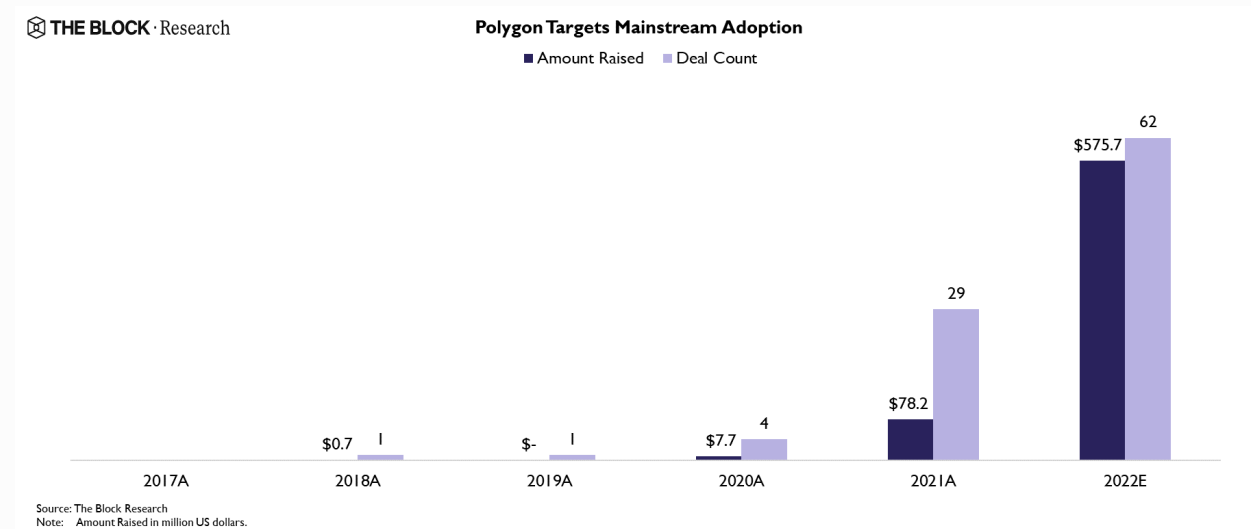
Even though Ethereum has gathered criticism over the last few months, it remains the most preferred blockchain compared to other alternatives. Ethereum accounts for 371 projects, 473 funding deals, and \$4 billion in investments, which is significantly ahead of the second best: Solana's tally of 152 projects, 178 deals, and \$1.1 billion of capital injection.

Ethereum maintains its dominance over DeFi and NFTs/Gaming, as 57% of the Total value locked is on Ethereum. Applications like Uniswap, 1inch, and OpenSea still dominate their respective domains' trading volumes and will require serious competition to be bested any time soon. It is worth mentioning that some of the notable multichain protocols, like 1inch, Dapper

Labs, Opensea, etc., initially illustrated success on Ethereum and later on made their way to other blockchains.

Sorare, an Ethereum-based fantasy soccer game with 215 licensed clubs where player cards are collectible, limited, and tradeable NFT, raised \$738 million combined in multiple rounds, making it the highest investment for an on-chain protocol.

Polygon Targets Mainstream Adoption

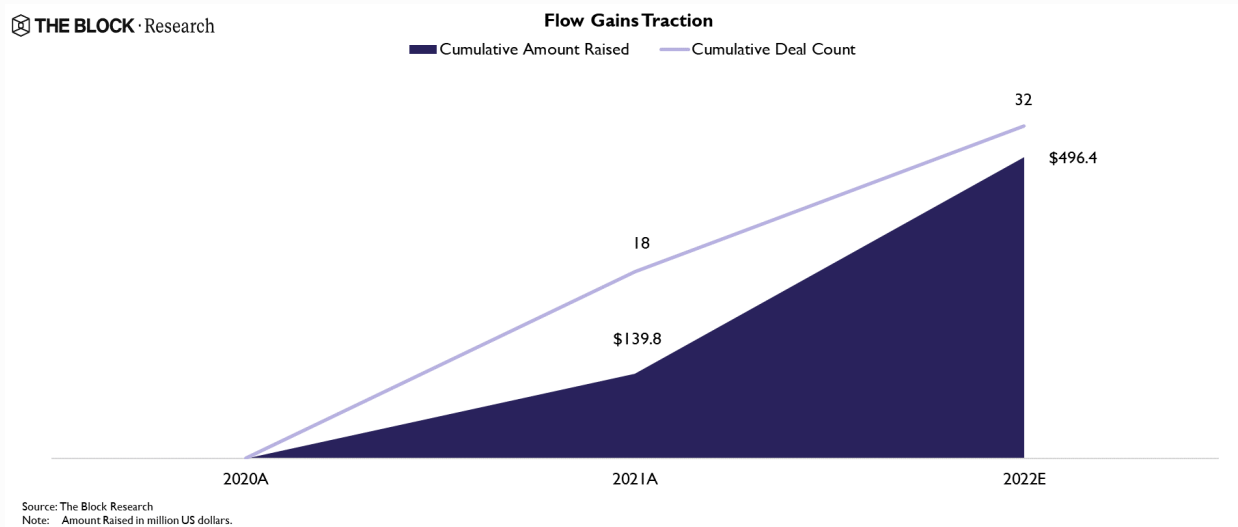


In 2022, Polygon has raised 630% more capital compared to 2021. Out of the \$575 million raised by Polygon projects in 2022, Autograph and Rario contribute ~\$290 million. Autograph, an NFT platform that brings iconic brands and legendary personalities in sports, entertainment, and culture, to create unique digital collections and experiences, raised \$170 million in a series B led by a16z. Rario, an NFT platform centered specifically around cricket that enables its fans to buy and trade officially licensed cricket athlete NFT cards, also raised \$120 million from Dream Capital.

Leaders of their respective industries, like Meta, Stripe, Starbucks, and Robinhood, have chosen Polygon as their Web3 partner to build Web3 experiences. Polygon is also one of six companies selected to participate in Disney's 2022 Accelerator program. Along with the organizational and business development efforts, Polygon continues to invest in building roll-up technologies such as [zero-knowledge rollups](#), which help process transactions separately from the leading network to help increase speed and lower costs. The future is Multichain, and as of now, Polygon seems to be leading the way.

An Environmentally Conscious Blockchain Gains Traction

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As NFT adoption skyrocketed in 2021, Flow Blockchain has garnered significant interest in the last two years. Instagram, a social media colossal, has added support for Flow-based NFTs as it expands its NFT initiative into more than 100 countries. Interestingly, Flow is also the [most carbon-efficient major blockchain](#). Based on 2021 usage, Flow uses just 0.18 GWh annually. Based on Deloitte's research, minting an NFT on Flow consumes even less energy than a single Google search, and driving one mile in a car is equivalent to minting one million Flow NFTs.

Another project centered around cricket, FanCraze, a digital cricket collectible cards game, is being built on Flow Blockchain, which raised \$117 million. A VR/metaverse heavyweight that builds digital avatars for social media, Genies is also built on Flow blockchain. Genies has raised \$215 million.

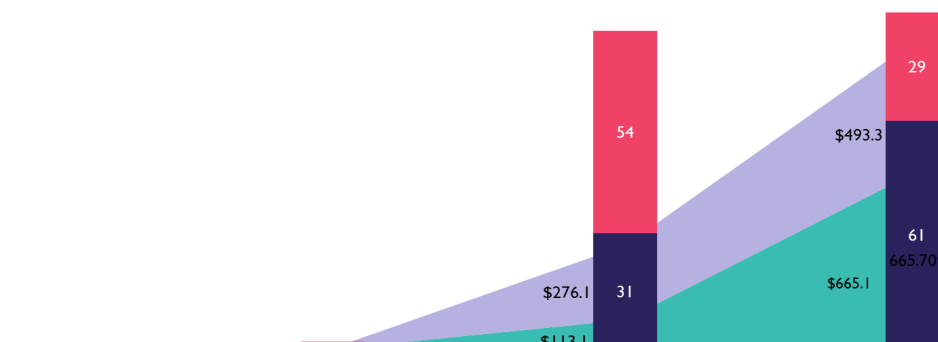
Meteoric Rise of Solana

The most talked about 'Ethereum Killer,' Solana, has seen a stupendous rise in the last two years. The Launch of Serum, a central limit order book based exchange on Solana, which also was the biggest investment of FTX, was the catalyst for the rise of Solana. Solana became the go-to blockchain for developers and retail users as Ethereum struggled to scale during 2021. It claims to have the capacity to support around 65,000 transactions per second (TPS), average transaction costs under \$0.001, and 3400 validating nodes across six continents across the globe.

Meteoric Rise of Solana

Yearly Development in Investment Trends

■ NFTs/Gaming Amount Raised ■ DeFi Amount Raised ■ NFTs/Gaming Deal Count ■ DeFi Deal Count



Source: The Block Research

Note: Numerical Representation of values for the year 2019 and 2020 are excluded from the chart for visual clarity. Amount Raised in million US dollars.

As blockchain games were on the rise in 2021, play-to-earn games required high volume, low-value in-game transactions, and Solana offered the scalability this category of protocols desired. As the Solana token geared up for one of the most outrageous price actions in the history of blockchain, Solana Labs, the organization building the Solana blockchain, raised [\\$314 million](#) in one of the most significant token sales as of yet.

Solana-based projects raised more than a billion dollars in the last two years after having raised a mere \$7 million until 2020. Unlike Polygon, which focused heavily on the development of NFTs/Gaming projects, capital on Solana is distributed, as 44% of investment went into DeFi protocols and 56% of investment corresponded to NFTs/Gaming protocols.

Another blockchain worth mentioning is the one with the third highest TVL in the DeFi realms. BNB Chain, with a \$5.3 billion TVL, is home to 115 projects which have raised ~\$330 million as of this writing. 75% of the total investment in the BNB chain went into NFTs/Gaming projects. PancakeSwap, a decentralized exchange on the BNB chain, is the most popular DeFi app across all blockchains, with [1.4 million](#) unique active addresses and a trading volume of \$4.7 billion in the last month. It raised \$0.35 million in a Pre-Seed Accelerator program from Binance Labs.

8

Overview of the Largest Raises in the Sector's History

Overview of the Largest Raises in the Sector's History

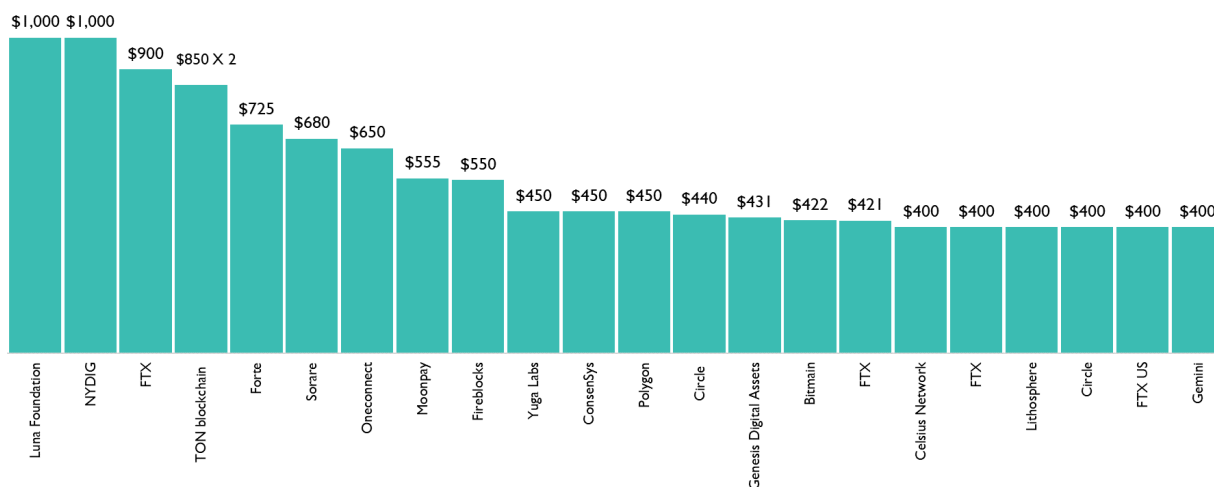
This section contains an analysis of the funding raises above \$400 million in the blockchain sector.

| Project/Company | HQ | Year Founded | Category | Sub-Category | Quarter | Amount (millions) | Valuation | Deal Type | Round |
|------------------------|----------------|--------------|---------------------------|--------------------------------|---------|-------------------|-----------|-------------------|--------------------|
| Luna Foundation Guard | Singapore | 2022 | DeFi | Decentralized Stablecoin/Indic | Q1 2022 | \$1,000 | n/a | Token Sale | Token Sale |
| NYDIG | United States | 2017 | Crypto Financial Services | Institutional/Asset Mgmt. | Q4 2021 | \$1,000 | n/a | Growth Equity | Growth Equity |
| FTX | United States | 2018 | Trading/Brokerage | Pure exchange | Q3 2021 | \$900 | n/a | Mid Stage | Series B |
| TON blockchain | BVI | 2018 | Infrastructure | Layer-1 | Q1 2018 | \$850 | n/a | Token Sale | Token Sale |
| Forte | United States | 2019 | NFTs/Gaming | Gaming | Q4 2021 | \$725 | 1000 | Mid Stage | Series B |
| Sorare | France | 2018 | NFTs/Gaming | Sports/Betting | Q3 2021 | \$680 | 4300 | Mid Stage | Series B |
| Oneconnect | China | 2015 | Enterprise | DLT | Q1 2018 | \$650 | n/a | Early Stage | Series A |
| Moonpay | United States | 2018 | Crypto Financial Services | Payments/Payment services | Q4 2021 | \$555 | 3400 | Early Stage | Series A |
| Fireblocks | United States | 2018 | Crypto Financial Services | Institutional/Asset Mgmt. | Q1 2022 | \$550 | 8000 | Later Stage | Series E |
| Yuga Labs | United States | 2021 | NFTs/Gaming | Game Studio | Q1 2022 | \$450 | 4000 | Seed & Pre-Series | Seed Round |
| ConsenSys | Switzerland | 2014 | Infrastructure | R&D | Q1 2022 | \$450 | 7000 | Later Stage | Series D |
| Polygon | India | 2017 | Infrastructure | Layer-1 | Q1 2022 | \$450 | n/a | Token Sale | Token Sale |
| Circle | United States | 2013 | Crypto Financial Services | Payments/Payment services | Q2 2021 | \$440 | n/a | Growth Equity | Growth Equity |
| Genesis Digital Assets | United Kingdom | 2021 | Infrastructure | Mining/Staking Infra | Q3 2021 | \$431 | n/a | Growth Equity | Growth Equity |
| Bitmain | China | 2013 | Infrastructure | Mining/Staking Infra | Q3 2018 | \$422 | 12000 | Mid Stage | Series B Extension |
| FTX | United States | 2018 | Trading/Brokerage | Pure exchange | Q4 2021 | \$421 | 25000 | Mid Stage | Series B Extension |
| Celsius Network | United Kingdom | 2017 | Crypto Financial Services | Credit & Lending | Q4 2021 | \$400 | 3000 | Mid Stage | Series B |
| FTX | United States | 2018 | Trading/Brokerage | Pure exchange | Q1 2022 | \$400 | 32000 | Later Stage | Series C |
| Lithosphere | United States | 2016 | Infrastructure | Layer-1 | Q2 2022 | \$400 | n/a | Commitment | Commitment |
| Circle | United States | 2013 | Crypto Financial Services | Payments/Payment services | Q2 2022 | \$400 | n/a | Growth Equity | Growth Equity |
| FTX US | United States | 2020 | Trading/Brokerage | Pure exchange | Q1 2022 | \$400 | 8000 | Early Stage | Series A |
| Gemini | United States | 2014 | Trading/Brokerage | Pure exchange | Q4 2021 | \$400 | 7100 | Unknown | Unknown |

Note: BVI= British Virgin Islands



Highest Deal Raises of Blockchain Sector in a Single Round

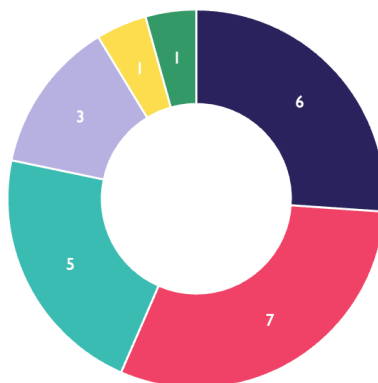


Note: Amounts in US million dollars.

Visual representation for TON Blockchain (Telegram)- it raised the same amount twice.

Number of Deals Corresponding to Different Categories

■ Crypto Financial Services ■ Infrastructure ■ Trading/Brokerage ■ NFTs/Gaming ■ DeFi ■ Enterprise



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Amount Raised Corresponding to Different Categories



Note: Amounts Raised in million US Dollars.

9

Assessment Of Crypto Unicorns

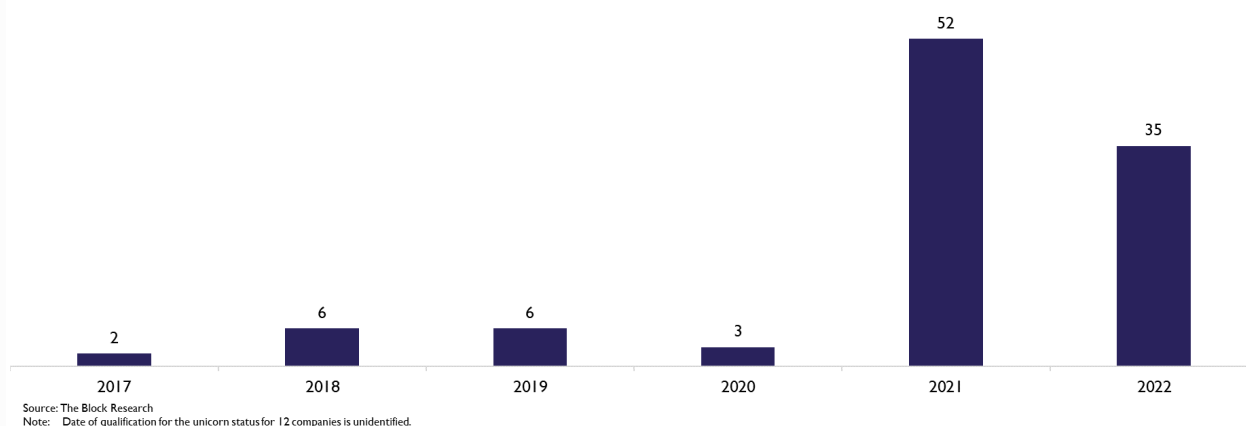
Assessment of Crypto Unicorns

Since 2018, The Block Research has been observing and analyzing the digital assets sector. The industry is often referred to as nascent. However, the development and progression of later-stage companies over the past couple of years show signs of maturation.

To track this progression, The Block Research has created “The Block Unicorn Index.” Qualification for the Index was determined through the public valuations of private rounds, estimated revenue based on comparable exchange volumes, and industry sources. Token-based projects were considered for unicorn status if they had conducted a private funding round that equated to a valuation of $\geq \$1$ billion. It is crucial to note that the companies considered unicorns under the block index ‘were’ unicorns at the time of the considered investment round. In the future, they may or may not have maintained their unicorn status, and there is no way of knowing it unless public disclosure documents specifically mention it. For this analysis, we consider a project to be a unicorn based on public valuations of a private round.

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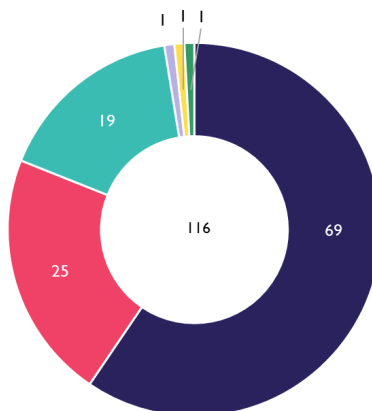
Qualifications of Projects into Unicorn Category



Of the 114 crypto unicorns, 87 achieved the status in the last two years, suggesting maturation in the industry.

Number of Unicorns in Every Continent

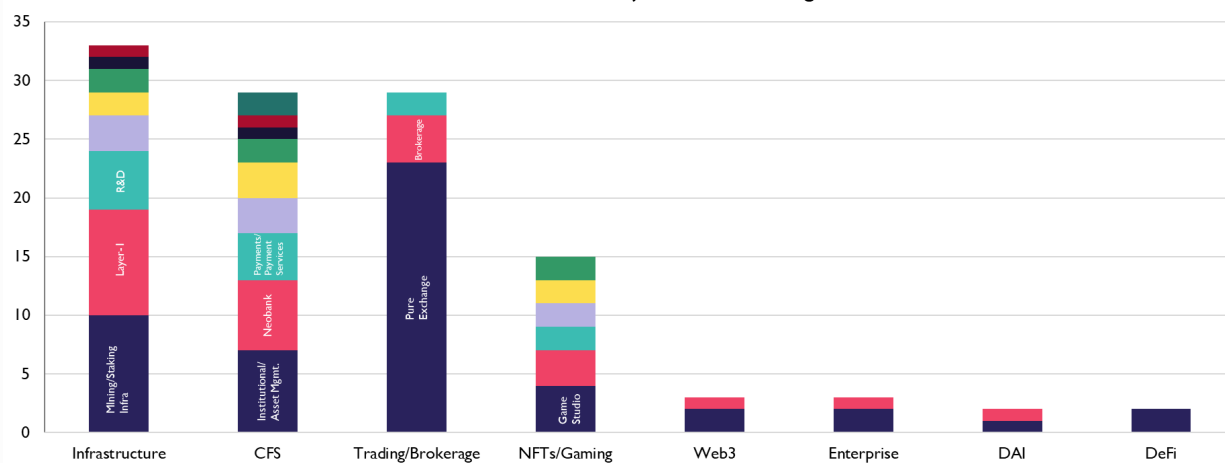
■ North America ■ Asia ■ Europe ■ Africa ■ Oceania ■ South America



Source: The Block Research

North America is the forerunner in the race to create Unicorns, and 59 of the tally is contributed by the United States.

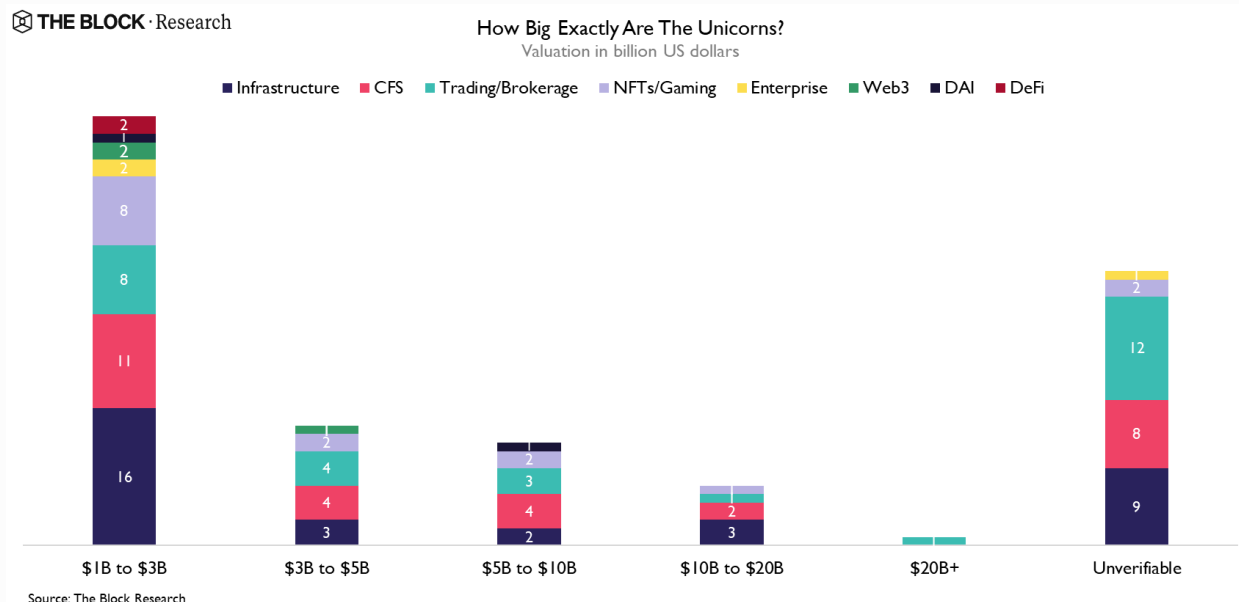
Distribution of Unicorn Projects in Various Categories



Source: The Block Research

Note: Visual representation of the name of subcategory with <4 unicorns is excluded from the chart for visual clarity.

Infrastructure is the category with the highest number of projects with unicorn status. Mining/Staking Infra and Layer 1 correspond to 19 of the 33 Infrastructure unicorns. The Trading/Brokerage category has 29 unicorns, of which 23 are Pure Exchanges.



FTX's valuation of \$32 billion before it went to 0 was the highest valuation at which a crypto company has raised a private investment round. It can be speculated that Binance, the largest crypto exchange, may also posit a similar valuation.

32 of the investment rounds mentioned that a company raised money at a valuation upwards of \$1 billion but did not specify the exact number.

10

Effects of Changing Regulations on Investments

Effects of Changing Regulations on Investments

Over the past few years, cryptocurrency has evolved from being obscure and predominantly associated with illegal activities into a mainstream financial instrument as adoption increased. The number of global cryptocurrency owners has [risen](#) nearly 350% over the last two years.

With increasing recognition from retail and institutional investors, governments are making a substantial effort to create regulatory frameworks for digital assets, thereby bestowing the crypto movement with a sense of legitimacy.

President of The United States' issuance of the crypto industry-specific executive order encouraging federal agencies to coordinate and propose a crypto regulation framework, a new bipartisan legislative [bill](#) empowering the Commodity Futures Trading Commission with exclusive jurisdiction over the digital commodities spot market, [amendments](#) from various countries to impose restrictions on cryptocurrency-related activities for the financial security of their citizens, are some of the highlights of regulatory strides industry has made in the recent past.

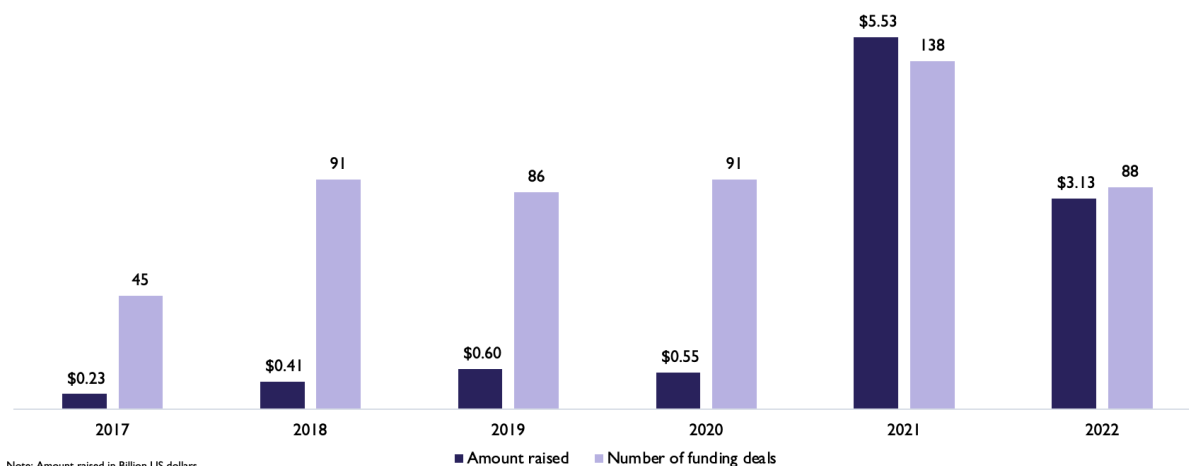
The state of venture capital funding in crypto depends on the growth in user adoption of different crypto products and services. Technological developments, the sophistication of consumer-centric use cases, and regulatory changes are a few of the crucial criteria that affect user adoption and, thus, the state of capital injection.

In this section, we will assess the impact of crypto regulations on investments in the digital asset sector with a couple of examples.

Regulatory Changes in Trading/Brokerage

The average deal size of a project in Trading/Brokerage has increased since 2021. It could have resulted from the sophistication of existing players in the market and/or evolving regulations in several jurisdictions. The evolution of market players and regulations coinciding with the change in investment trends is a correlation, not causation.

Amount raised and number of deals for Trading/Brokerage category



The user experience of trading applications has improved, exchanges have become more sophisticated, and more consumer-centric products and services have been developed.

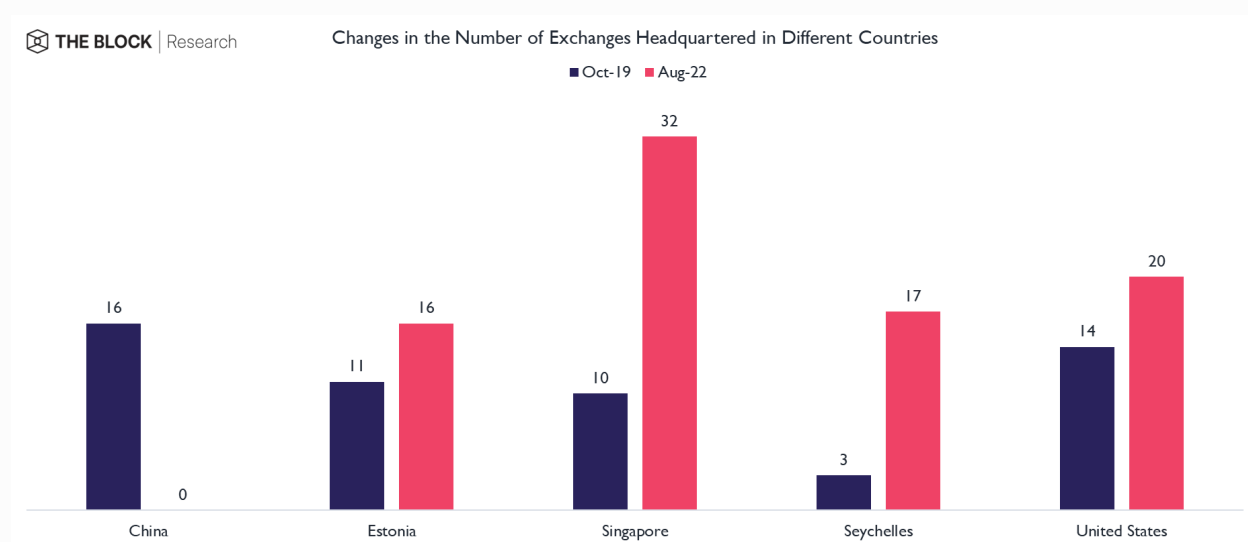
Regulations in crypto-friendly jurisdictions are evolving. Crypto-friendly countries' lenient approach towards centralized companies has morphed into selective business licensing to crypto service providers, which has also caused a decrease in the number of new exchanges entering the market. Consequently, more investments were poured into existing players, leading to category maturation as the average deal size increased.

Centralized Exchanges in Crypto-Friendly Countries

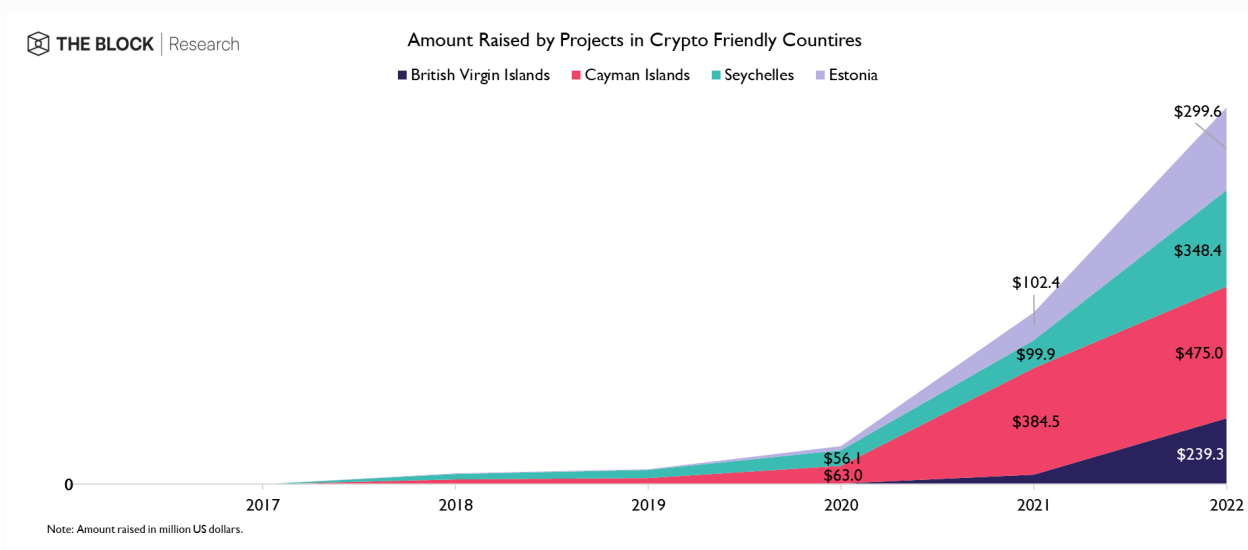
Although there is a visible change in the perspective of the policymakers, there has been no internationally coordinated, concerted regulation of cryptocurrencies yet, according to the World Economic Forum's Global Future Council on Cryptocurrencies. This causes variations in countries' laws and regulations concerning the crypto industry. As a result, crypto companies like centralized exchanges are fleeing strictly regulated countries and/or setting up offices in crypto-friendly countries.

Countries like Singapore, Malta, the British Virgin Islands, Seychelles, etc., are considered to be crypto-friendly because of their favorable regulatory and tax infrastructures.

On the other hand, China outlawed cryptocurrencies outright in 2021. As a result of the ban and global growth in users since 2020, a high number of crypto companies moved their bases to crypto-friendly countries.



China's crypto ban forced all the exchanges to shut down or shift their headquarters to Seychelles or Southeast Asia as they offered favorable tax treatment and ease of governance to set up foundations.

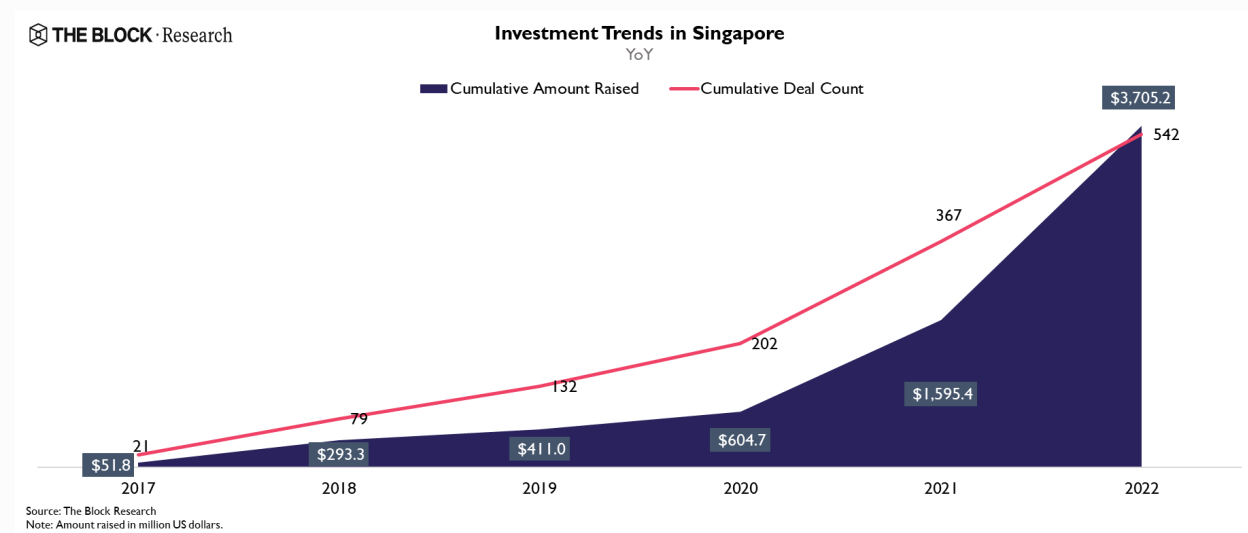


The number of venture funding deals specific to crypto-friendly geographies has also increased since 2020.

Singapore: The Crypto Haven

Impacts of friendly crypto regulations are observed most predominantly in the state of crypto in Singapore. Singapore is home to 32 centralized exchanges, 11 more than the industry leader in

the United States. According to Ravi Menon, managing director of the Monetary Authority of Singapore (MAS), the nation aims to become the global capital for crypto businesses. Singapore empowers cryptocurrency usage by offering a favorable legislative framework and tax regime. Nevertheless, the city-state also enacted consumer protection laws to protect its citizens by banning crypto service providers from advertising in public spaces.



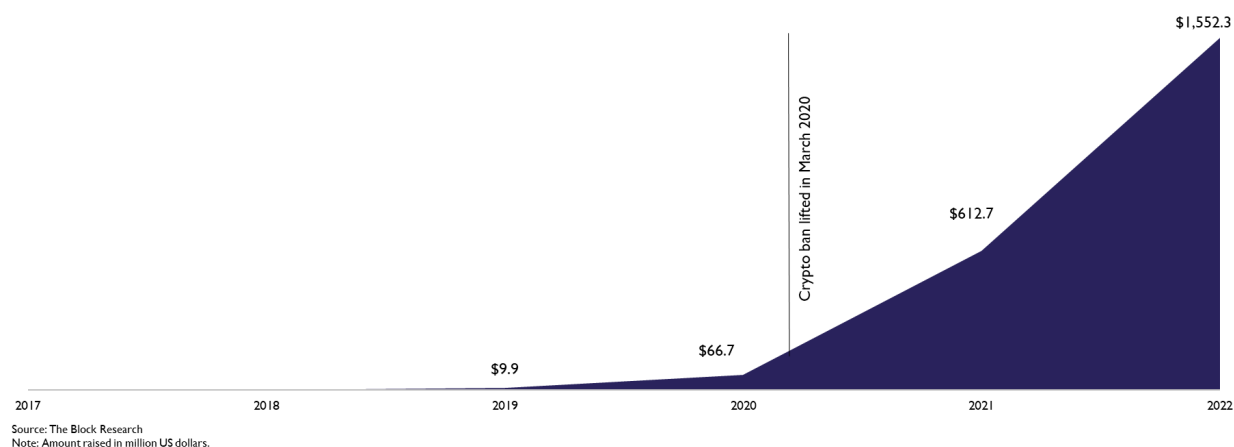
\$3.1 billion of the total \$3.7 billion invested in Singapore-based firms corresponds to the last two years. More than 300 companies received business licenses in Singapore during the same time. Considering the two metrics mentioned above, Singapore's growth is only second to the United States.

Zipmex, Nansen, Multichain DEX, Sky Mavis, ADDA are some famous companies headquartered in Singapore.

Growth in India Post-Ostracization of The Crypto Ban

In the aftermath of the great bull run of 2017, enthusiasts from many countries started exploring the digital assets space. This space also spawned interest in the traders and technophiles of India. As recognition from retail and institutional investors increased, the Reserve Bank of India imposed a [ban](#) on cryptocurrency trading in April 2018 that barred banks and other financial institutions from facilitating any service concerning cryptocurrencies. This ban was lifted in March 2020, which led to an exponential growth of the digital asset sector in India.

Cumulative Amount Raised by Indian Projects/Companies Yearly Development



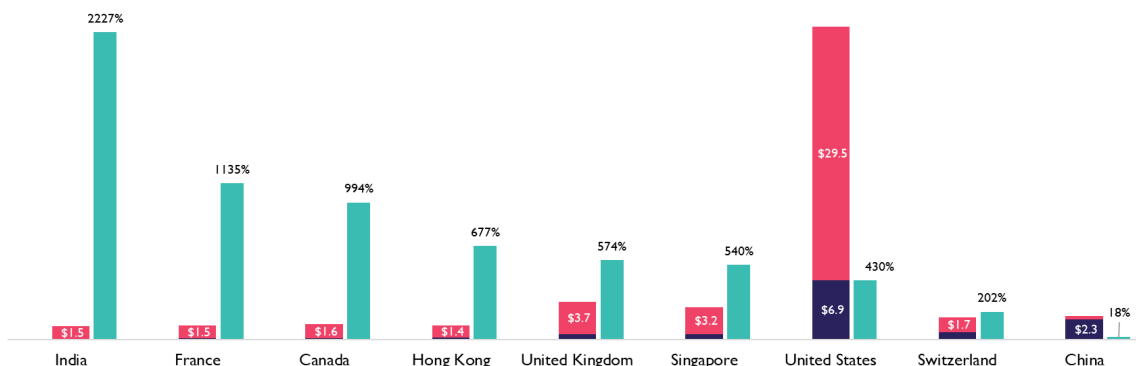
Since the ban was lifted, investments in the sector skyrocketed by 6350%. Polygon, a Commit chain for Ethereum offering scaling solutions, raised \$450 million in a token sale led by Sequoia Capital and Softbank. Following the ruling, the country's top exchanges doubled down on advertising and educating users about the asset class. User sign-ups on crypto exchanges like WazirX jumped by [4937%](#) since March 2020, whereas India's first crypto unicorn, CoinDCX, userbase grew by almost 700% in the same period.

Coinswitch Kuber and CoinDCX, both centralized exchanges, together raised ~\$550 million to expand their product offerings. A digital cards collectible game, Fancraze, raised \$100 million in a series A round.

Comparison of Growth Since The Start of 2020 Bull Run

Top 10 Countries by Amount Raised

■ Amount Raised (2017-2020) ■ Amount Raised (2021-22) ■ % Growth



Note: Amount Raised in billion US Dollars.

Numerical representation of amount raised below \$1.4 billion is excluded from the chart for visual clarity.

The start of the bull run of 2020 coincided with the ostracization of the crypto ban in India. Compared to other countries, India has seen higher % growth in the amount raised since 2021 over 2017-2020.

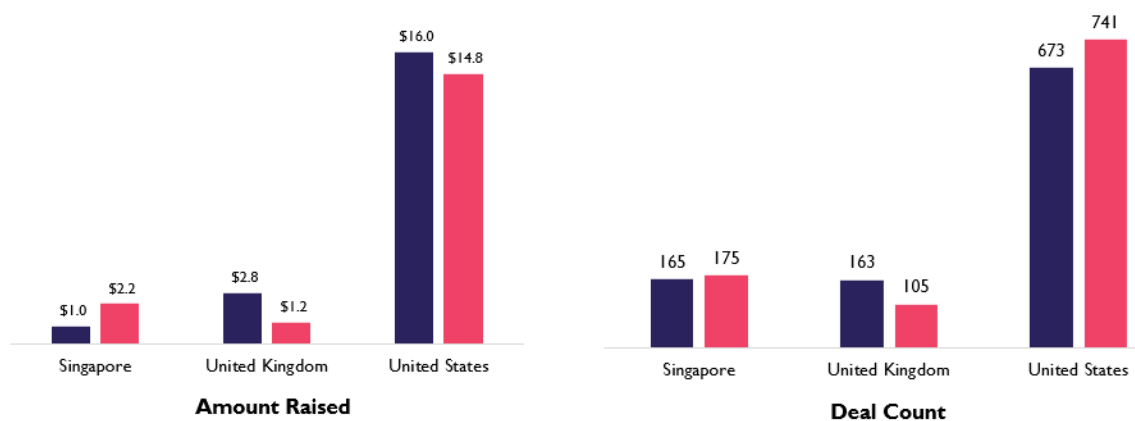
Investments Drop in the United Kingdom

As the country's top financial authorities, including the Bank of England and the Treasury, have stepped up scrutiny over the sector, the United Kingdom saw a [drop](#) in investments for the first half of 2022.

Investments Drop in The United Kingdom

Country Wise Comparison of Funding Statistics

■ 2021 ■ 2022



Note: Amount Raised in billion US dollars.

The fall in investments in the United Kingdom was more significant than the drop in the United States and Singapore, which confirms that the drop was not necessarily only because of the plummeting crypto market cap.

In the aftermath of recent events of the Terra crash, 3AC's downfall, and the liquidity crisis surrounding many of the significant crypto lending providers, many countries have begun considering more stringent statutory compliance and consumer protection laws. Ideally, policymakers would want to balance tightening the rules for crypto service providers and its seamless integration with traditional finance. If countries can collaborate to avoid regulatory arbitrage and promote a universal set of guidelines, the obstacles for the entire digital asset sector will be dealt with in unison throughout the globe.

However, over-regulation of the industry and strict laws for stakeholders involved can be a curse. Inflexible harsh rules right from the infancy stage of the industry may hamper user adoption and result in the smothering of the market. The industry will thrive only if there are users interested in availing of the products and services on offer.

For example, United States FinCEN's (Financial Crimes Enforcement Network) proposed [amendment](#) to the regulations implementing the Bank Secrecy Act requires companies to provide identity details corresponding to a wallet, but this may not be feasible as a wallet need not necessarily have an individual identity. This could potentially discourage the users from availing of the crypto services.

The Enigma of DeFi Regulations

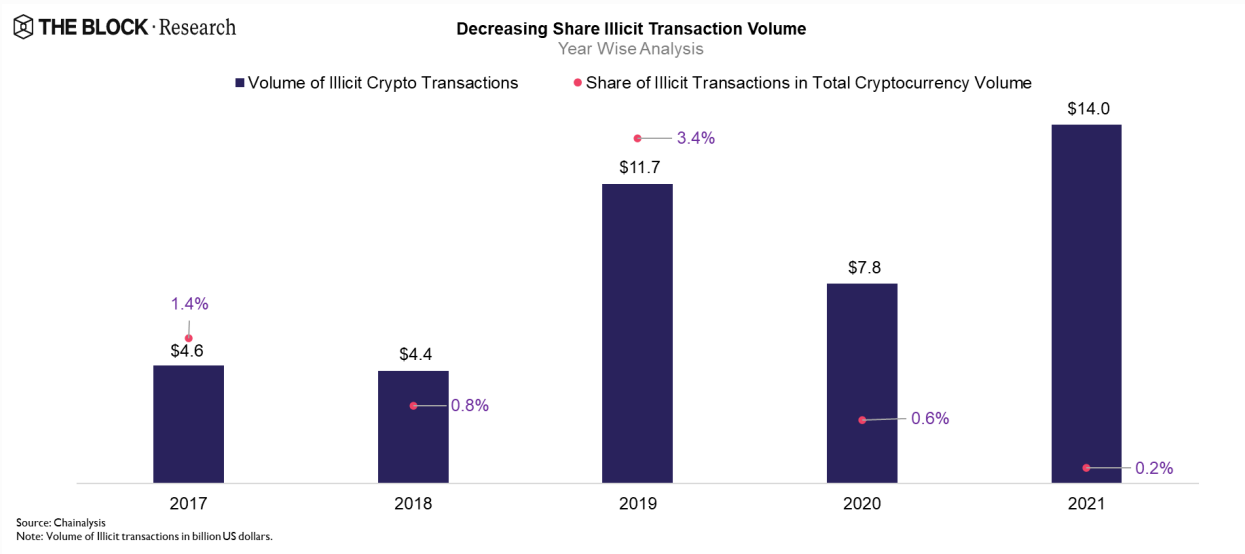
Regulatory concern surrounding DeFi is the prime issue for all the stakeholders, ipso facto investors, to ponder over. Efforts to protect the citizens from a financial mishap are admirable, but over-regulation of decentralized finance may stifle the growth of an industry-defining use case of a potentially disruptive technology, as cumbersome KYC requirements may discourage anonymous or pseudonymous developers from building dApps. As a result, investments in the DeFi category largely depend on the evolution of regulatory frameworks.

The Tornado cash fiasco is a recent example of how regulations affect the state of the DeFi sector. Tornado Cash is a decentralized crypto mixer that can be used to conceal the trail of transactions for privacy reasons. The Office of Foreign Asset Control (OFAC) barred Unites

States' citizens from using the application on account of national security. An anonymous address sent a small number of tokens through Tornado to various celebrities, and those celebrities' addresses, too, were sanctioned. Tornado Cash developer Roman Semanov's GitHub was suspended. People losing their ability to interact with a decentralized application and a developer's GitHub account being suspended are pressing concerns this incident sheds light upon.

The Case of Illicit Transactions and Their Repercussions

Nonexistent or weak regulations over the burgeoning digital asset sector have resulted in illicit activities over the last few years. This is the primary reason the risk-averse population is discouraged from utilizing crypto services. Consequently, waned user interest creates a negative sentiment in the industry. The state of regulations in crypto directly affects user adoption and cryptocurrency crime, thereby affecting investment trends in the digital asset sector.



Even though cryptocurrency crime transaction volume has reached an all-high of \$14 billion in 2021, transactions involving illicit activities represented only [0.15%](#) of total cryptocurrency transaction volume. According to the UN, it is [estimated](#) that between 2% and 5% of global GDP (\$1.6 to \$4 trillion) annually is connected with money laundering and illicit activity. We can infer that the crime rate in crypto is still lesser than in the global financial markets.

A decreasing % share of the illicit transaction to total transaction volume can be a positive for the industry's health.

Some investors are in the crypto game for the long run, banking on its technological advantages in building the new global financial infrastructure. Unquestionably, some investors are in crypto to exploit the infamous 'get rich quick' schemes. Sanctioning regulations may decrease industry scams and further curtail market volatility. Even if regulations cause market stabilizations to some degree, it is unlikely that an optimal level of regulation will repel investors who thrive on volatility, as the digital asset sector arguably would still be a more volatile asset class than most.

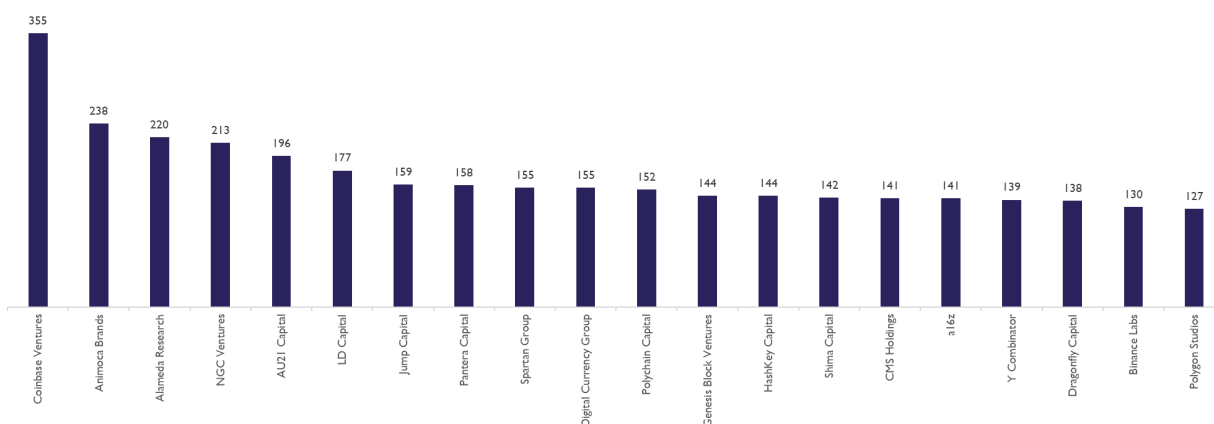
11

Most Active Investors

Most Active Investors

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Most Active Investors

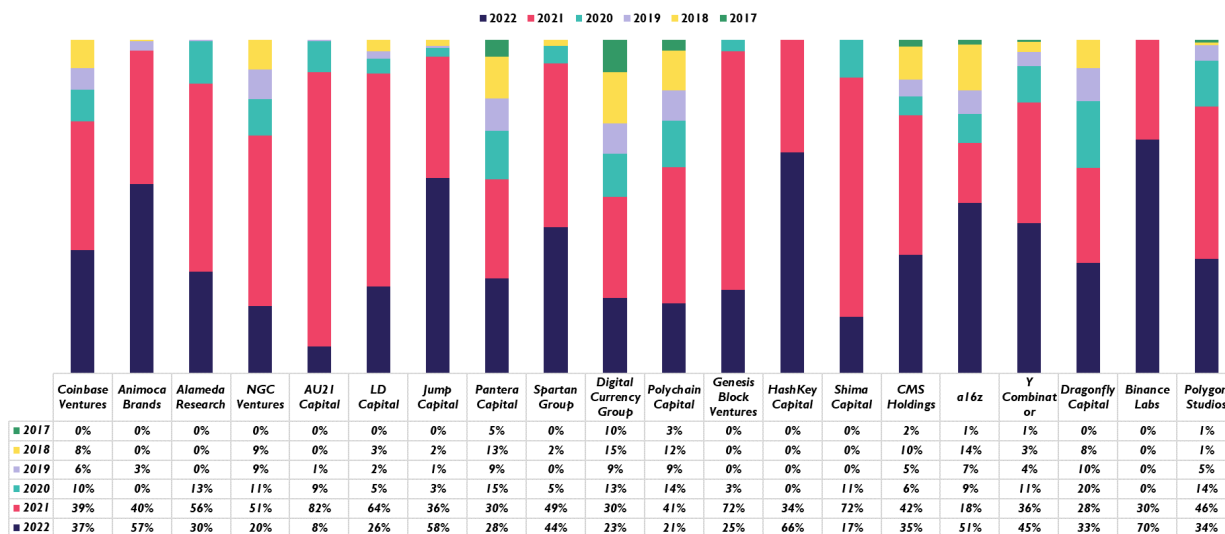


Note: The data labels depict number of investments made by the firm

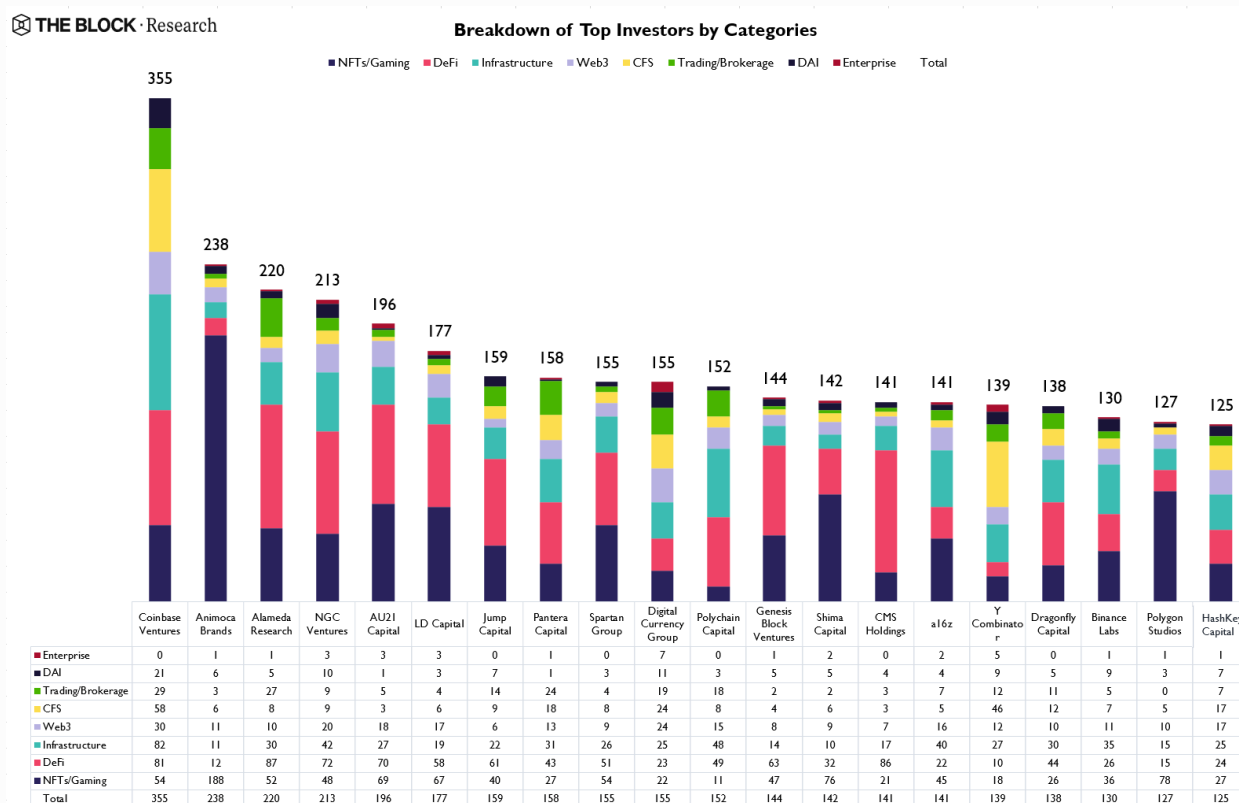
The digital asset industry has seen significant funding activity in the last two years, as 2021 and 2022 correspond to 60 percent of the total deals since 2017. Coinbase Ventures tops the list with 355 investments in the space, followed by Animoca Brands and Alameda Research.

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% Distribution of Investments Over The Years

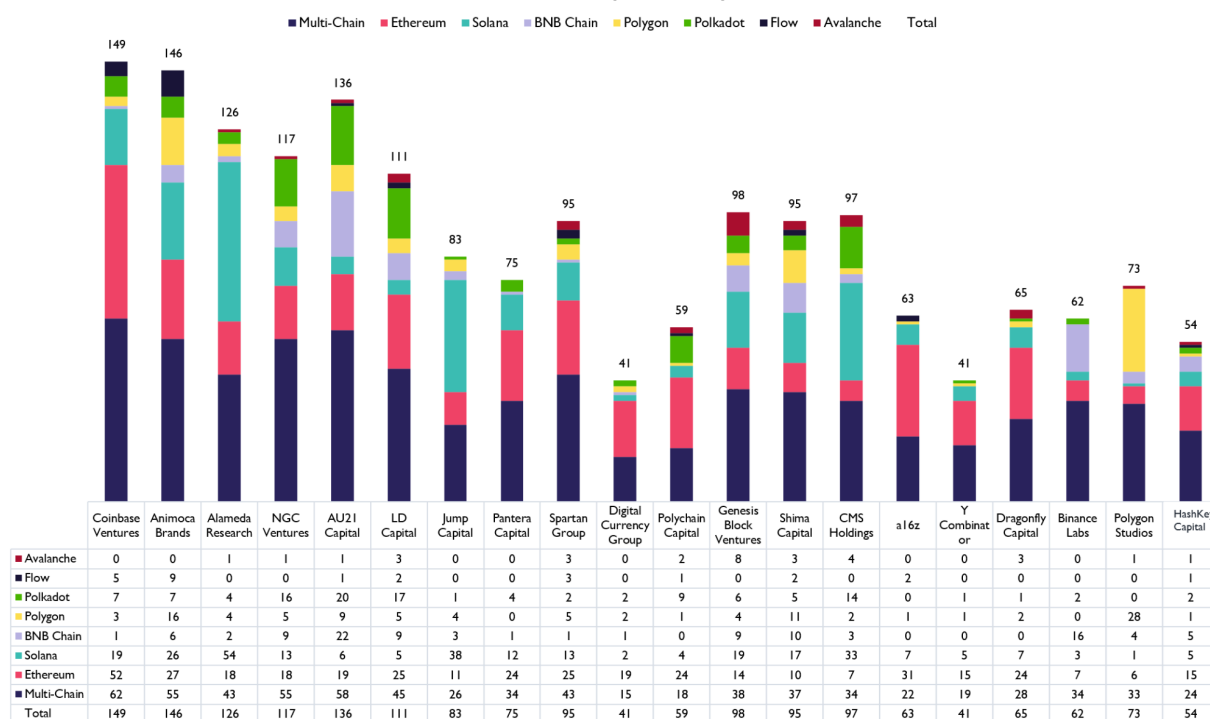


It is interesting to note that almost all the investments of Animoca Brands, Shima Capital, Polygon Studios, etc correspond to the last two years. However, HashKey Capital, Pantera Capital, Digital Currency Group, etc., have been active in the industry in the preceding years as well.



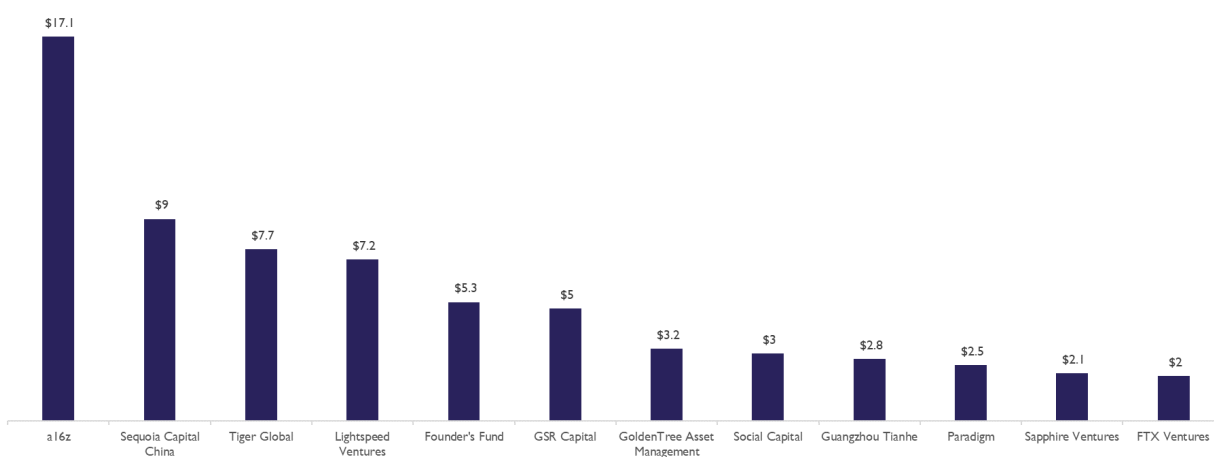
Animoca Brands has a clear focus in NFT/Gaming category, as 79% of their investments are in that category. Coinbase's number of investments in CFS is head and shoulders above others, as it has been a part of 58 CFS-based funding rounds. Coinbase also leads in the number of Infrastructure, DAI, Trading/Brokerage, and DeFi category investments when compared with its competitors.

Breakdown of Portfolio Top Investors by Blockchain



Blockchain investments mentioned above only consider on-chain investments, which do not include investments made into agnostic or unverifiable protocols. The multi-chain protocols seem to be a primary focus of investors.

Total Amount Funded

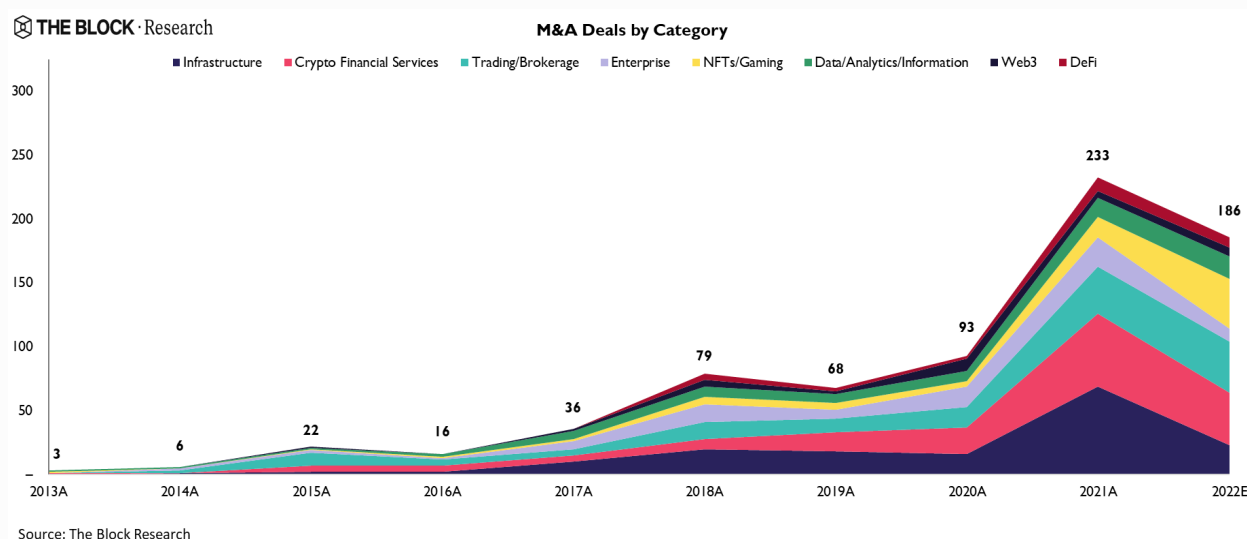


Based on the fund formations by venture capitals over the years, a16z has dedicated the highest amount of capital to the digital asset sector. Paradigm and FTX Ventures are the only two crypto-native firms that had raised over \$2 billion.

HashKey Capital

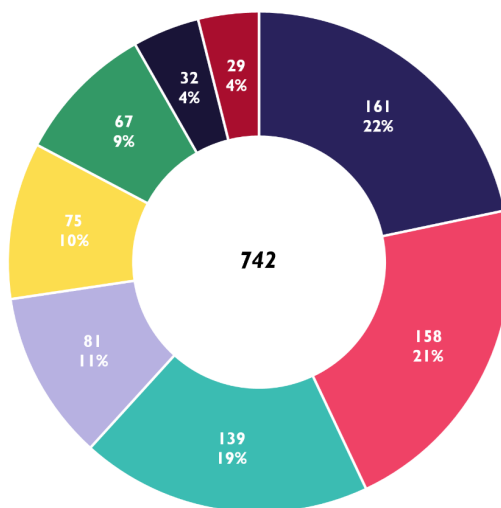
HashKey Capital has 321 investments in the digital asset sector. 23% were Infrastructure, 21% DeFi and NFTs/Gaming represented 19% of the portfolio. HashKey Capital has participated in a total of 109 Seed or Pre-Seed investments for infancy stage projects. Scaling solutions and layer-2 projects have been one of the focus of HashKey Capital, investing in 9 different projects. HashKey has made 16 DAI investments specifically into Data Storage and Social Networks sub-categories.

Mergers and Acquisitions



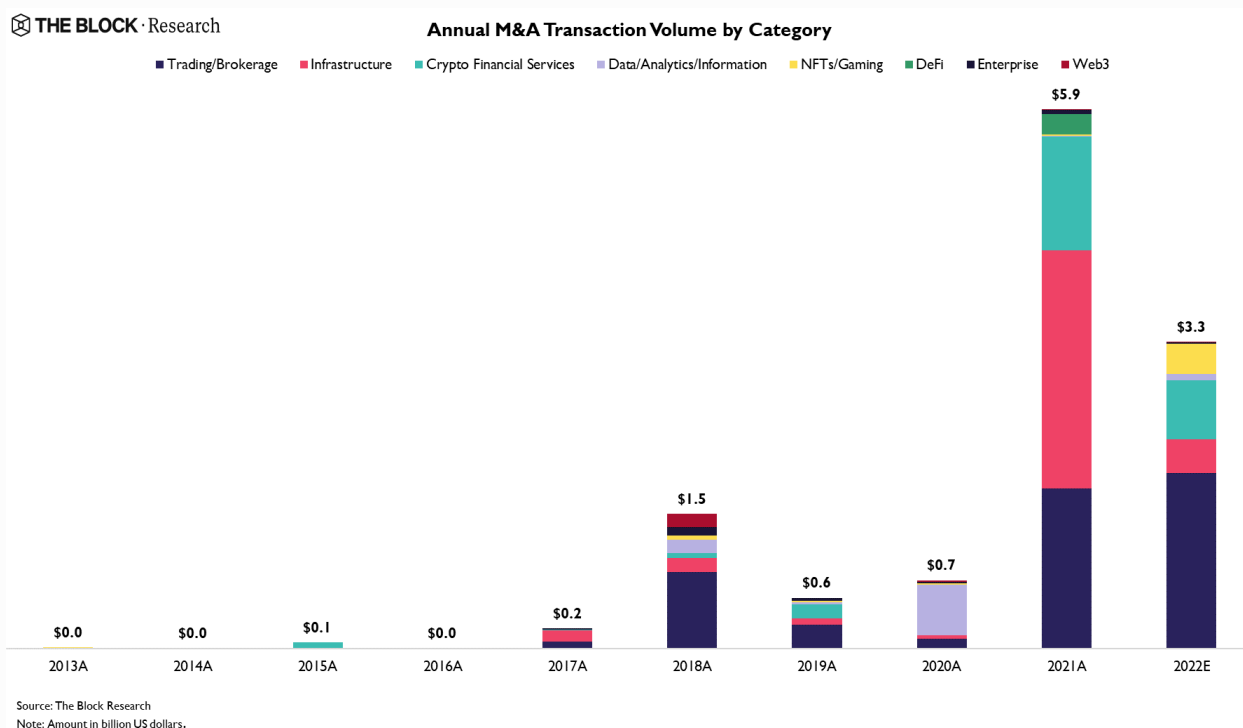
M&A sector has witnessed significant growth since 2018. 88% of the deals recorded since 2013 have occurred in the last five years. 2021 saw the maximum consolidation across categories in the digital asset sector, showcasing a record 233 transactions.

Distribution of Deals by Category



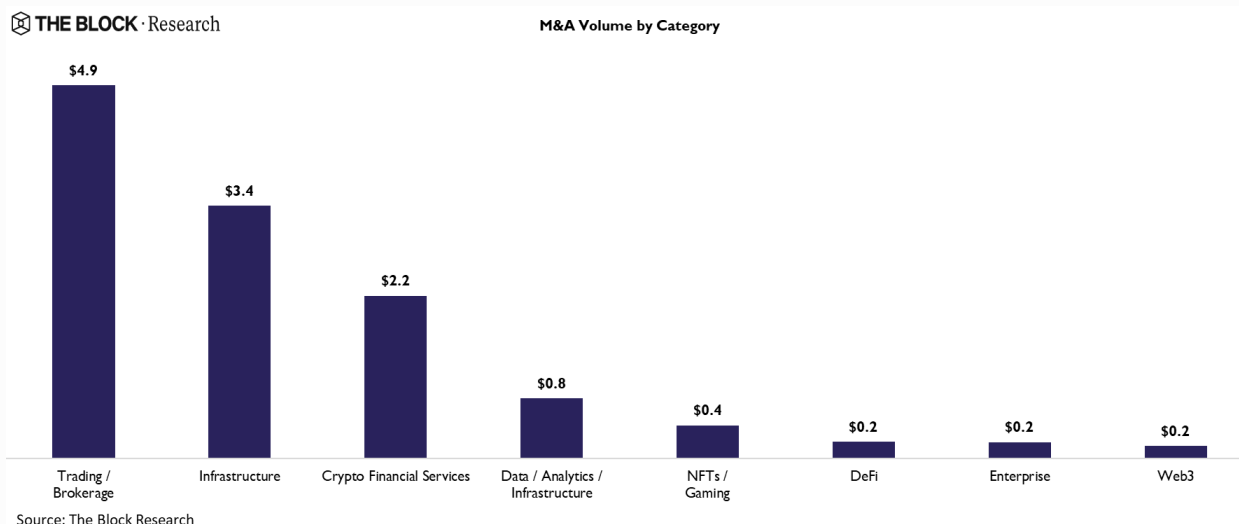
Source: The Block Research.
 Note: Reflects data from January 1, 2013 – September 30, 2022.

Relatively more mature categories like CFS, Infrastructure, and Trading/Brokerage observed higher consolidation compared to the rest of the categories. The Fundamental Categories contributed to 61% of the total M&A deals. The majority of them were recorded occurred in 2021. In 2021, 95% of the documented amount transacted was attributed to Fundamental Categories.



The recorded transaction amount for 2021 is a whopping \$5.9 billion, where most purchasing parties have been pre-existing crypto native players. This suggests changing operational dynamics for category-leading players as they changed strategies. More prominent organizations acquired the smaller players in the market to weed out the competition and diversify into an entity providing a full range of product/ service suites. As markets cool off after bull runs, the correction tends to offer lucrative deals for acquirers.

A YOY increase of more than 100 percent has been witnessed only twice in the last 10 years, and both incidences occurred after bull runs in the sector.



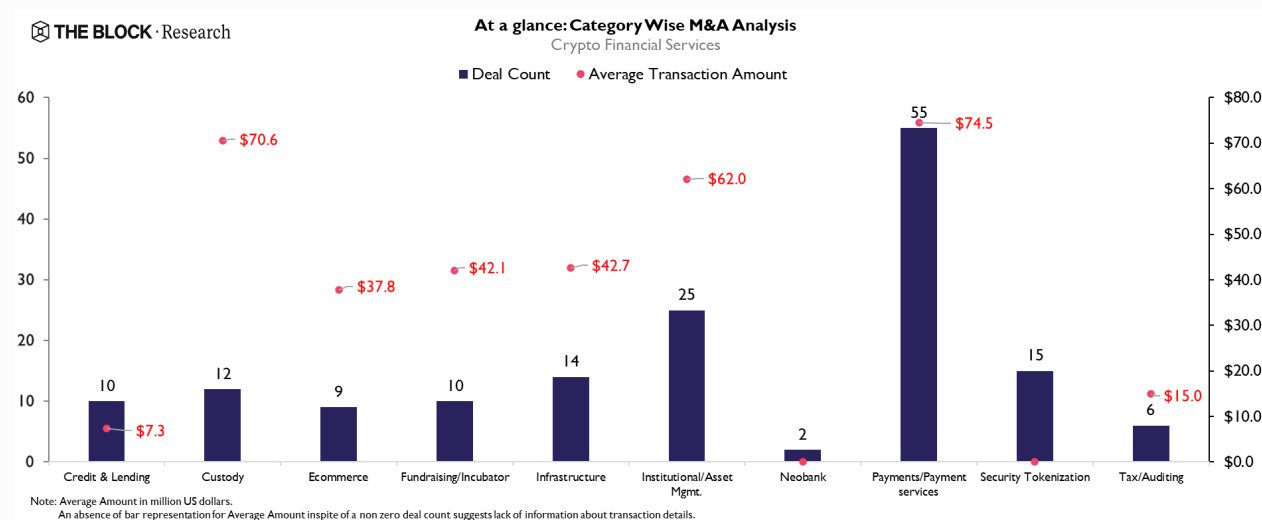
Trading/Brokerage has seen 139 M&A transactions totaling \$4.94 billion. The DeFi category has seen only 29 deals totaling \$167 million. This depicts that DeFi still exhibits nascency.

71% of the total M&A deals recorded in the digital asset sector without transaction details. The available information for these transactions either did not contain explicit information about the terms of the deal or had convoluted terms which do not directly point to the amount for which the acquirer purchased the firm. We categorize such deals under 'N/A' for clarity of assessment.

M&A Category Wise Analysis

This section contains Category wise macro-level analysis, which depicts deal count and the average amount of a deal specific to subcategories. The deal amount for most of the M&A transactions is unavailable; hence inspecting of 'Sum of all deals under the subcategory' will prove futile to gauge the size of individual subcategory consolidations. An average of available data points leaves less room for speculation in this case.

Crypto Financial Services



The CFS category observed 159 M&A transactions, 39 of which had precise transaction details.

The Payments/Payments Services subcategory saw a higher consolidation than others.

Renowned companies like Republic, Gemini, Robinhood, Coinbase, Kraken, and Celsius

Network are some notable purchasing stakeholders active in the CFS category. Republic, a

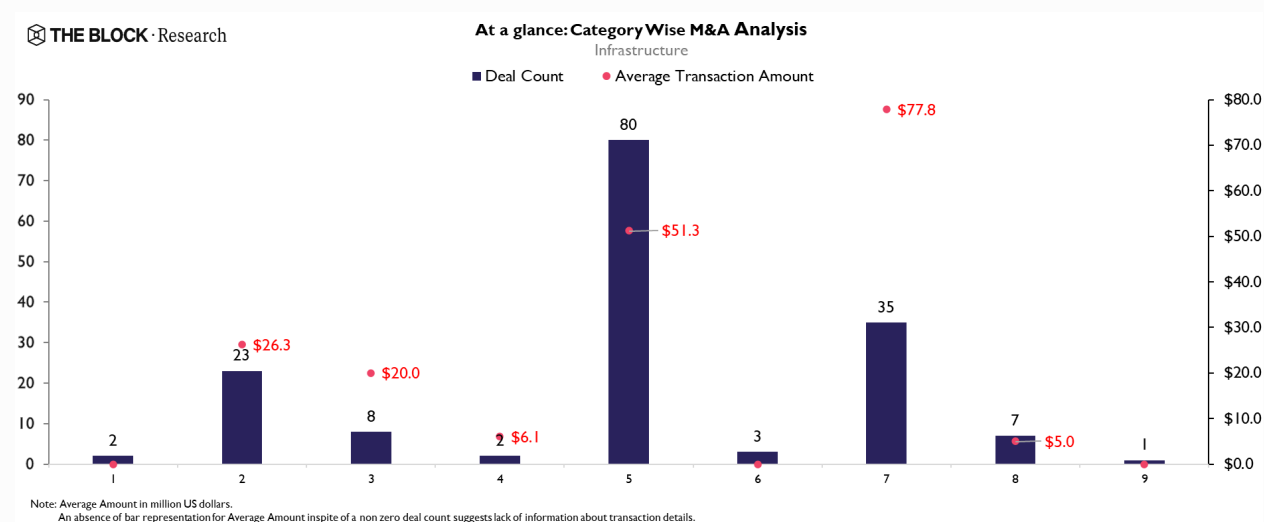
private investing platform and technology services provider that enables users to invest in

early-stage companies has been the most active purchaser of companies classified under CFS.

Seven of the companies Republic acquired were under the Fundraising/ Incubator subcategory.

Simplex, a fiat gateway for crypto providers, was acquired by a payment technology company named Nuvei for \$250 million, making it the largest M&A transaction for the CFS category.

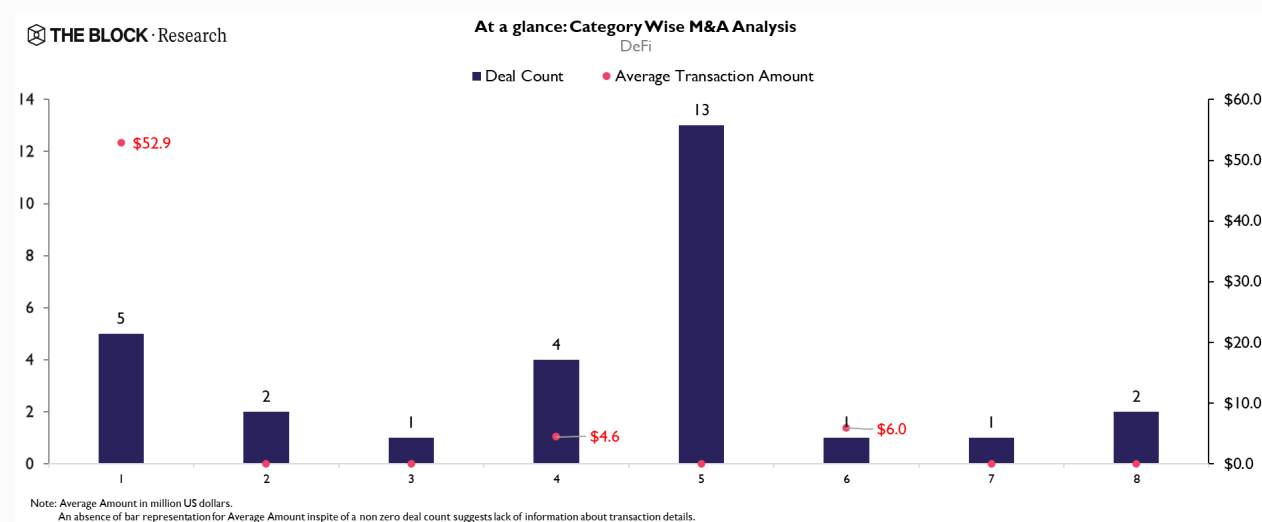
Infrastructure



\$3.5 billion of consolidation is attributed to projects under Infrastructure. R&D and Mining/Node Infra are two dominating categories that contribute to 70% of the total deals under Infrastructure. It also makes up 93% of the total transaction amount recorded under Infrastructure deals. The disparity between the interested purchasing giants like Northern Data, Polygon, Coinbase, etc., and smaller firms in R&D, Mining/Node Infra subcategories is vast. More prominent companies capitalize on this disparity and acquire smaller firms to expand in new geographies and/or improve their product/service offerings. They also tend to acquire-hire most of the firms and acquire their talent to scale and diversify faster than the competitors. Coinbase has been the most active investor with 12 Infrastructure-related acquisitions.

Northern Data, a company that develops high-performance infrastructure solutions, acquired a bitcoin mining hardware company, Bitfield, for \$575 million, making it the largest acquisition in Infrastructure.

DeFi



DeFi corresponds to the lowest M&A deals among all the categories. None of the Top 100 TVL DeFi protocols have made an acquisition or have been acquired by any company. The Asset Management subcategory attracted the most attention as it accounts for \$211 million out of the \$222 million transacted in DeFi M&A.

Acquisition of iBG Finance by ICOA, a national provider of wireless and wired broadband Internet networks in high-traffic public locations, for \$185 million in the biggest M&A deal in the DeFi category. Coinbase and Headline Crypto are the only two companies to have acquired more than one firm in DeFi.

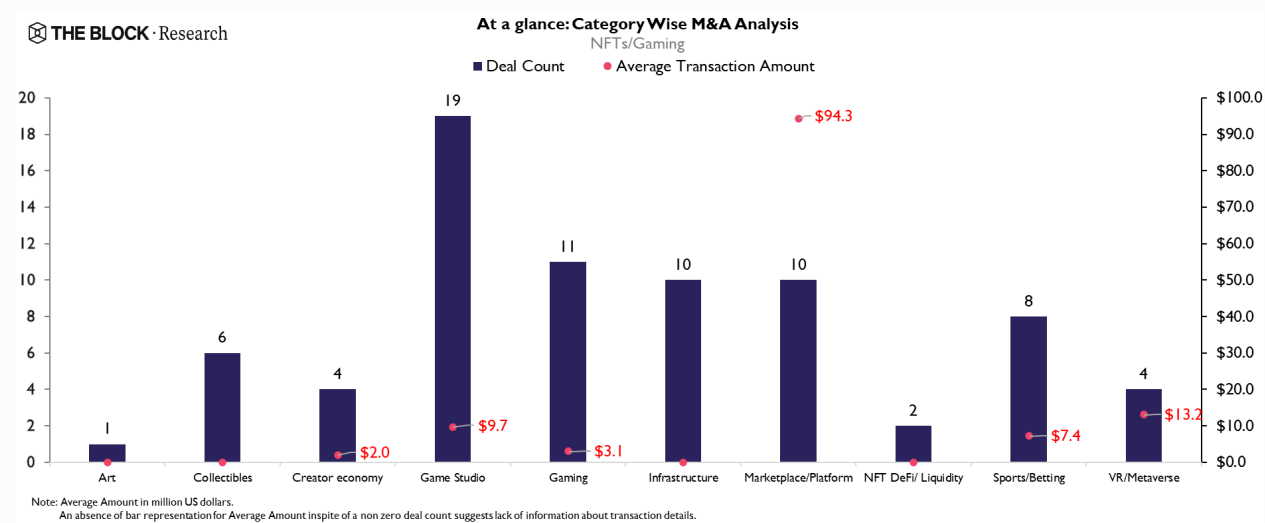
13 deals were classified under the DEX/Liquidity category, but none of the deals disclosed the acquisition amount.

NFTs/Gaming

This category corresponds to 75 M&A deals. The deals are spread over various subcategories like Game Studio, Gaming, Infrastructure, Marketplace Platform, etc. The acquisition of GemNFT by Opensea in Q2 2022 for \$238 million is the largest M&A transaction in NFTs/Gaming category history. Although acquired, the NFT marketplace aggregator, Gem, still operates as a standalone entity.

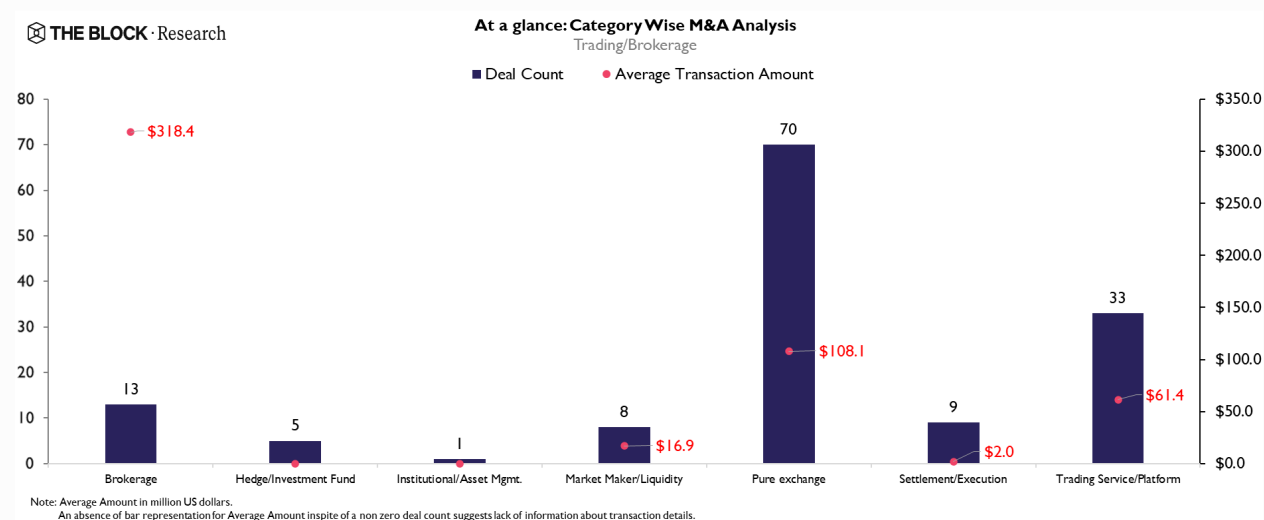
Increased occurrence of Mid-Stage funding deals for NFTs/Gaming suggests maturation for the category. So naturally, as this sub-sector matures, the competition in the landscape will increase as more participants compete for the same piece of the pie, leading to consolidation.

Animoca Brands is the undisputed leader in the NFT domain in M&A. It has acquired 18 companies, predominantly Gaming Studios like Notre Games, Eden Games, etc.



Although the terms of the deals were not disclosed, one Q1 2022 M&A deal is worth mentioning. Yuga Labs, the spearhead studio of NFT PFPs and creators of the BAYC, acquired Larva Labs' IP rights of Cryptopunks and Meebits. After this acquisition, Yuga Labs introduced Otherside. Conceptualized as a metaverse that intertwines NFT-powered virtual worlds with elements of massively multiplayer online role-playing games (MMORPGs), Otherside is geared towards an interoperable virtual experience. Otherside is easily the most flamboyant attempt of a bootstrapped metaverse by a gaming studio whose promising value proposition attracted an investment of \$450 million from ace investors like a16z, Animoca brands, etc.

Trading/Brokerage

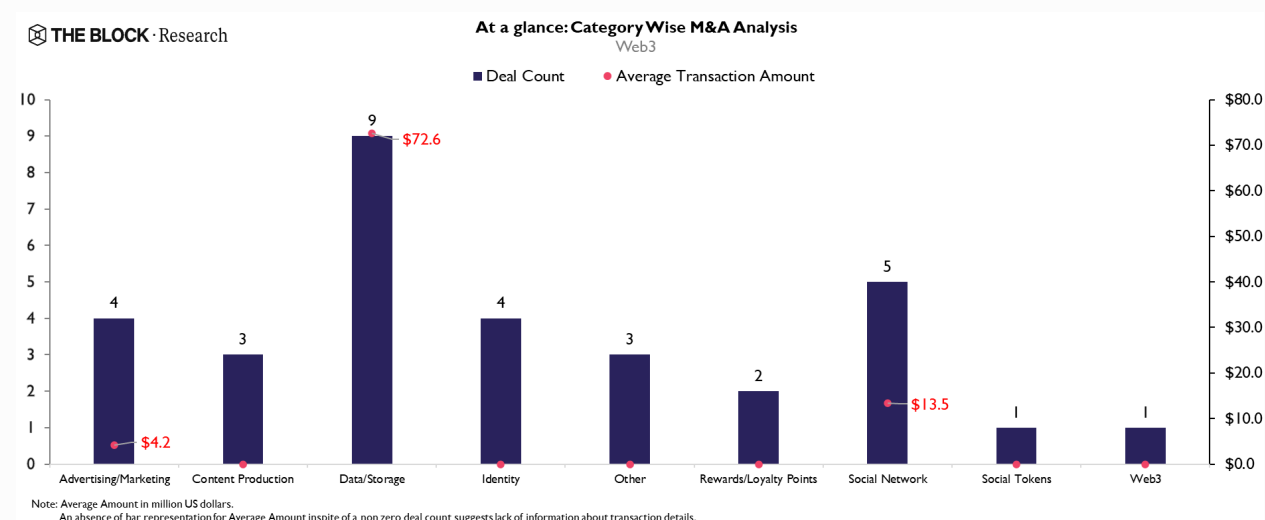


This category attracted the maximum recorded deal amount compared to other categories. Trading/Brokerage corresponds to \$4.9 billion of deal transactions since 2013. Brokerage companies have the highest average deal amount compared to all the subcategories. Pure Exchange and Brokerage subcategories contribute almost 95% of the total amount transacted in Trading/Brokerage M&A.

FTX's acquisition of the bankrupt lender Voyager's assets for \$1.4 billion at a bid auction in September 2022 is the largest M&A transaction ever recorded. The deal breakdown resulted in FTX paying at least \$111 million for Voyager's non-crypto assets, including its users and intellectual property.

Kraken, Coinbase, and FTX/Alameda Research have been the leading acquirers in this category with 7,6,6 acquisitions, respectively. The Boston-based cryptocurrency firm, Circle, sold its once-flourishing over-the-counter (OTC) trading operation to Kraken for an undisclosed amount. DCG acquired Luno, the cheapest spot trading exchange, providing them with investment capital, partnerships, etc., by keeping the exchange's individuality intact. Since the acquisition, Luno has adopted a zero-maker fees exchange model, making it one of the cheapest for spot trading.

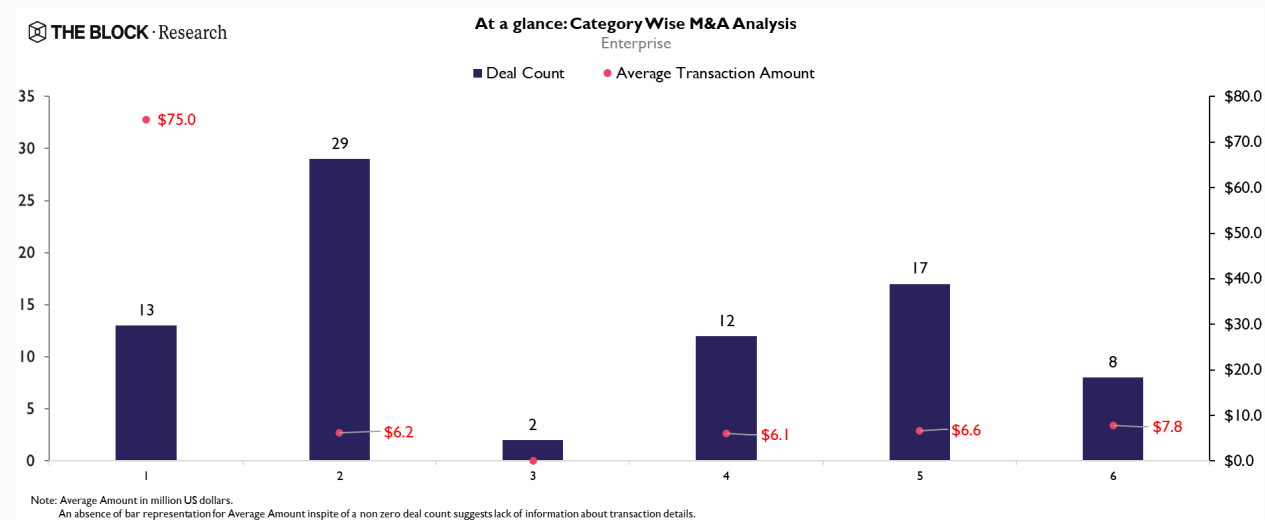
Web3



Web3 observed \$167 million of M&A transactions, and 87% of the recorded amount attributes to Data/Storage subcategory. Justin Sun's Tron Foundation acquired BitTorrent for \$140 million to absorb its already established decentralized network architecture into Tron Foundation, making it the largest M&A deal in the Web3 category. Web3 development is in its initial phase. With only 32 deals in the last ten years, Web3 projects are set to evolve as we believe the necessary infrastructure for these projects is in better shape than before.

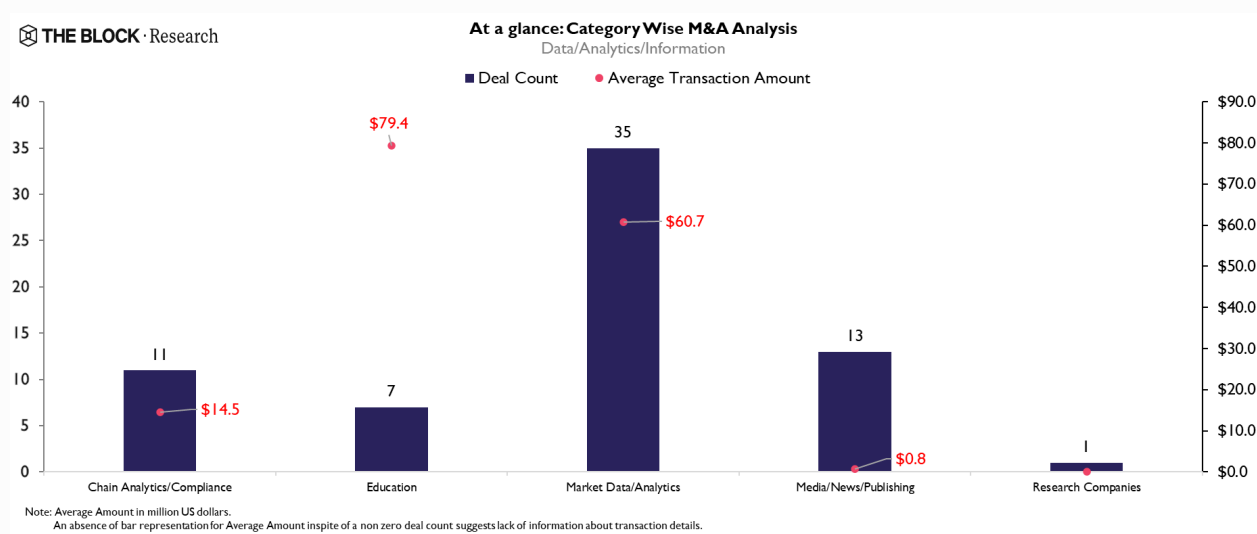
Binance, Tron Foundation, and Dapper Labs have acquired two firms each in the Web3 space.

Enterprise



DLT subcategory has witnessed maximum consolidation in this category, totaling 29. Digital Asset Holdings, a company that offers developer tooling and infrastructure solutions to businesses, acquired three companies in 2015-2016. However, Huobi's acquisition of controlling interest in Patronics Holdings, a Hong Kong-based investment holding company, for \$77 million for 71.67% of the total shares is the most significant transaction to have occurred in the Enterprise M&A space.

Data/Analytics/Information



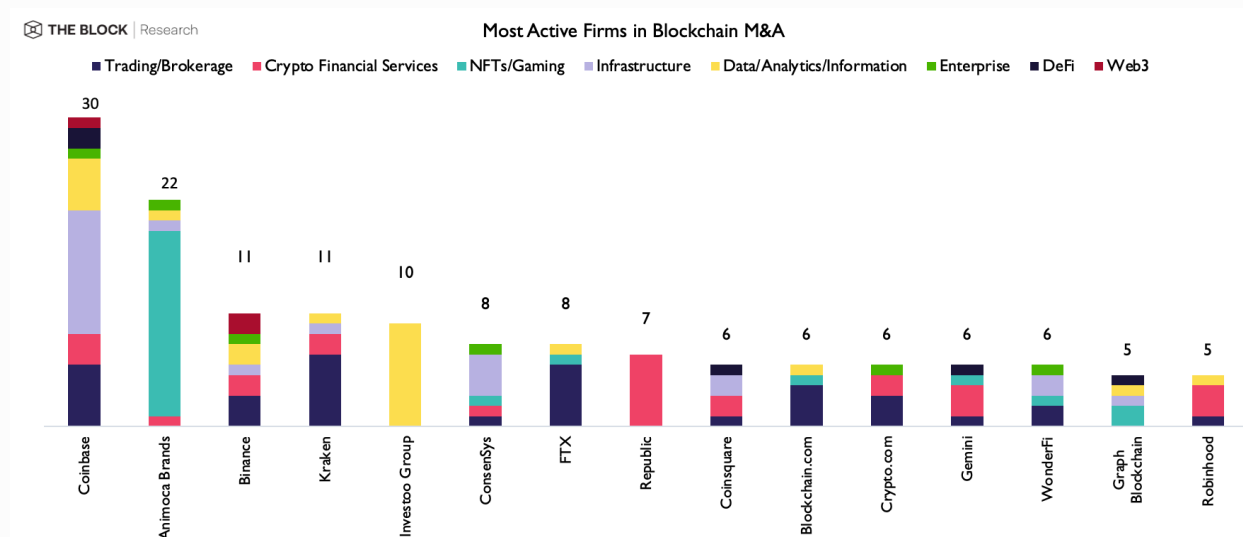
67 M&A transactions are attributed to the Data/Analytics/Information category. Investoo Group and Coinbase led the acquisitions for this category as they fully acquired 10 and 5 firms, respectively.

In April 2020, Binance acquired CoinMarketCap for \$400 million. Since then, CoinMarketCap has added various education and trading-related services to its service suite. Following up on this development from its competitor, in August 2020, FTX acquired Blockfolio, a live price tracking application, to expand its footprint in the retail market.

Binance is the leading multinational crypto exchange growing its geographical operations and product offerings at a breakneck pace. FTX, too, projected a similar trajectory only to falter miserably in November 2022, but Binance's acquisitions are more distributed across various categories as compared to FTX.

FTX's six out of eight acquisitions are within Trading Brokerage, whereas Binance has bought firms from every category except DeFi and NFTs/Gaming.

Most Active Firms in M&A



Coinbase and Animoca Brands lead the race with 30 and 22 acquisitions, respectively. Coinbase acquisitions are more diversified, with a soft focus on Infrastructure and Trading/Brokerage. On the contrary, Hong Kong-based blockchain gaming conglomerate Animoca Brands' acquisitions are highly concentrated in the NFTs/Gaming category. Notably, 18 out of 22 acquisitions for Animoca are from NFTs/Gaming. Animoca has raised at least \$600 million year-to-date among its subsidiaries to fund strategic acquisitions, investments, and product development.

FTX, led by Sam Bankman-Fried, primarily played 'clean up' for the crypto sector after the recent collapse of Terra and crypto lending providers. Although the firm itself had no money to help itself, it extended lenders' support and concentrated on purchasing distressed assets. Such activities include its extended credit lines to BlockFi and Voyager Digital, the option to acquire BlockFi, and the purchase of Voyager's assets and intellectual property. Based on recent revelations, FTX was utilizing user funds for their own and Alameda Research's transactions, which has created a massive hole of over \$10 billion in the digital asset industry.

10 of the 15 most active firms in blockchain-specific M&A provide digital asset trading services. These conglomerates have taken over companies of various categories and are not restricted to Trading/Brokerage. As user adoption increases in various stages of a market cycle, trading exchanges benefit immediately as the users access various services offered by exchanges like spot trading, margin trading, token listing, Initial Exchange Offering, OTC deals, etc. When user engagement is high, the exchanges experience a windfall, creating a sudden capital for investments and acquisitions. To stay relevant and stay ahead of the competition, these firms influx this capital into acquiring companies with strong potential or companies that may fulfill voids that the current product/service suite may have.

However, cryptocurrency exchanges further up on the list, including Coinbase, Binance, and Kraken, have been noticeably inactive with their M&A pursuits. Of these three exchanges, Coinbase is the only one to have made an acquisition this past year, purchasing the U.S.-based derivatives platform FairX in January.

On the contrary, an intriguing observation among these companies is that the firms later down the list, including Gemini, WonderFi, Graph Blockchain, and Robinhood, have a much larger concentration of their acquisitions occurring in 2021 and 2022. Twenty of the twenty-two acquisitions by these four companies were over the past two years.

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Conclusion

Conclusion

Narratives are major vectors of rapid change in the economic behavior of society. 2021 has been a defining year for the crypto industry as it potentially changed the narrative from the draconian 'just a bubble' to a 'probable technological revolution.'

Consequently, venture funding has taken great strides in the digital asset sector, as we observed massive growth in capital injection. 75% of the total capital raised by the industry attributes to the last two years.

Based on historical evidence, the bull markets have led to massive capital infusion in the industry. Investments in 2018 were 560% more than in 2017; investments in 2021 were 870% more than in 2020. As markets take a breather post-euphoria, investments wane off. However, some projects build through the bear market with funds gathered during the euphoria.

The surge in investments in Mid and Later stage deals is a testament to the crypto industry's abdication of its status as a nascent industry. Of the 114 crypto unicorns, 87 achieved the status in the last two years. 82% of the funds raised through the Mid and Later-stage funding rounds is from 2021 onwards, further demonstrating maturation in the industry. 66% of the Early Stage deals have occurred since 2021, which indicates a similar potential surge in Mid-Later stage deals in the future.

Foundational Categories have maintained their dominance over the years. The infrastructure category has persistently garnered interest from investors. NFTs/Gaming also has amassed huge investments in recent years. The investment boom in DeFi and NFTs/Gaming category has been narrative-driven, as the DeFi Summer investments of 2020 percolated into NFT Mania of 2021.

As interoperable infrastructure improves in a potentially multi-chain future, we hypothesize that Data/Analytics/Information and the intersection of Web3-NFTs/Gaming categories will gain momentum.

The United States is still the Kingmaker, as more than 50% of the total investments have been poured into USA-based projects. China's ban on cryptocurrency forced many companies to move their operations to different jurisdictions. Singapore, the crypto haven, has been the

flagbearer for the Eastern hemisphere. However, in the aftermath of recent events of the Terra crash, 3AC's downfall, and the lenders' liquidity crisis, even the most crypto-friendly countries may implement stricter regulations.

There are more than 5000 private investors involved in the venture funding landscape. As veteran economists anticipate economic turmoil in the global financial sector in the near future, courtesy of growing inflation rates, the war in Ukraine, etc., we could expect more investors to broaden their horizons and magnify the capital deployed in the sector.

However, in light of the recent cathartic events surrounding FTX's bankruptcy, the market participants will most likely lose faith in the industry. We can expect a short to mid-term pullback on venture funding.

As mentioned at the very beginning, only 8% of the total venture investments correspond to the digital asset sector. As further infrastructure developments and technological sophistications transpire, the materialization of fundamentals-driven capital infusion accompanied by irrational exuberance among investors is inevitable. However, The Block Research will continue to strive to distill actionable insights from such information chaos.

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Appendix

Appendix

Category Identification Methodology

In this section, we have defined categories and subcategories based on which we classify the projects.

Crypto Financial Services (CFS)

It includes centralized companies that provide financial services within the digital asset sector. Centralized companies that create mundane traditional fintech applications interwoven with digital assets belong to this category.

It also includes companies billed as "CeDeFi" or centralized companies that may utilize decentralized finance on the back end for some of their services.

Subcategories

- Neobank: A tech company that provides banking services via its website. (BlockFi, although it offers other products as well)
- Credit & Lending: A centralized company with a business model focusing on its lending product. It includes the "CeDeFi" companies as well. (Ledn)
- Custody: A centralized company with digital custodianship as the primary proposition. (Hex Trust)
- Payments/Payment services: A centralized company that focuses on payments. Includes payments API providers, fiat-to-crypto on ramps, and centralized stablecoin providers. (Circle, MoonPay)
- Institutional/Asset Mgmt.: A firm that focuses on digital asset management for institutional clients. (NYDIG, Bitwise)
- Security Tokenization: A company that aims to provide security tokenization to various assets of the traditional fintech world, such as precious metals, equity, real estate markets, etc. (tZero, Securitize)
- Ecommerce: A centralized company that provides digital asset rewards for shopping online. (StormX, Lolli)

- **Infrastructure:** A company that provides the infrastructure to other entities that offer crypto financial services. (Paxos, Prime Trust)
- **Fundraising/Incubator:** A centralized company that provides access for KYC'ed users to participate in public token sales. Usually, an incubator also acts as a fundraiser for projects under its wing, so they, too, are included in this subcategory, provided they are centralized. (Coinlist)
- **Insurance:** A centralized firm with a business model focused on its insurance product. (Evertas)

Infrastructure

Includes firms and projects that are the digital asset sector's core components and underlying building blocks.

Subcategories

- **Mining/Staking Infra:** A company that provides mining and/or staking services as its main value proposition. (Everstake, Blockdaemon)
- **Dev Tooling:** A company that provides developer tooling infrastructure for blockchain protocols. (Alchemy, Infura)
- **R&D:** A firm that develops technologies to improve the current state of blockchain infrastructure. This category also entails Scaling solutions. (StarkWare, ConsenSys)
- **Security/Risk Modeling:** A company that provides blockchain security audits, white hacker groups, or other risk-mitigating services. (CertiK, Gauntlet Network)
- **Browser/Wallet:** A crypto wallet and browser provider. (Metamask, Phantom)
- **Governance:** A firm that provides tooling and infrastructure for DAOs and DAO treasury management. (Upstream, Coinshift)
- **Layer 1:** A layer 1 blockchain, except for privacy-focused blockchains, since they have their own subcategory. (Bitcoin, Ethereum)
- **Bridge/Interoperability:** A protocol that acts as a bridge or communication relay for different blockchain networks. (LayerZero, Wormhole)

- **Smart Contracts:** A project that brings smart contracts to protocols that don't natively support them. (Neon Labs bringing EVM functionality to Solana)
- **Privacy** – A blockchain application focused on privacy. (Aleo, Secret Network)

DeFi

Decentralized financial applications built on smart contract platforms like Ethereum, Solana, Avalanche, etc.

Subcategories

- **DEX/Liquidity:** A decentralized exchange using an AMM model or order book system. It also includes DEX (Decentralized Exchange) aggregators. (1inch, Serum)
- **Derivatives/Prediction Market:** A decentralized protocol for futures, options, synthetics, and prediction markets. (Polymarket, dYdX)
- **Asset Management:** A decentralized yield aggregator or a protocol that focuses on optimizing yield opportunities in the DeFi market. (dHEDGE, APY.Finance)
- **Risk Mgt./Insurance:** A company that offers insurance or risk management for DeFi protocols. It's one of the trickier subcategories that would be up for debate because hedging products such as Oryn are technically derivatives. (Barn Bridge, Nexus Mutual)
- **Middleware:** A protocol that does not directly provide users value but is a vital system for a DeFi protocol. Oracles are categorized under Middleware. (Chainlink)
- **DAO/Governance:** A DAO primarily focusing on the DeFi category. (Alliance DAO, BitDAO)
- **Decentralized Stablecoins/Indices:** A decentralized stablecoin project. (OHM, USDD)
- **Payments/Payment Services:** A decentralized payment application or protocol. It would be the counterpart of the CFS subcategory but decentralized. (Zebec)
- **IDO Platform (Fundraising/Incubator):** A decentralized platform for token projects to conduct public token sales. (Impossible Finance)

NFTs/Gaming

This category encompasses projects and companies involving non-fungible tokens (NFTs), unique digital items, and blockchain gaming.

Subcategories

- Gaming: A blockchain game or a gaming platform. (Gods Unchained, Axie Infinity)
- Art: An NFT project that focuses on the art industry. (ArtBlocks)
- Collectibles: An NFT project involving collections or collectible items. (BAYC, CryptoPunks)
- Marketplace/Platform: An NFT marketplace for selling, trading, and buying NFTs. It also includes marketplace aggregators. (OpenSea, LooksRare, Gem)
- NFT DeFi/Liquidity: A DeFi protocol that focuses on building financial applications for NFTs such as fractionalization, lending, etc. (TeaDAO, Fractional.art)
- Sports/Betting: A betting platform, casino, sports-themed game, sports fantasy leagues, and NFT projects. (BetSwap, Phantasia)
- Gaming Guild: A gaming guild or a community for blockchain gaming. (YGG, Ancient8)
- Creator Economy: An NFT platform or a service connecting creators, brands, artists, and their fans through NFTs. Essentially, any project for monetization with NFTs. (Galaxy, Live Bash)
- Infrastructure: A project that provides infrastructure or developer tools for the NFTs/Gaming category. (Metaplex, NFTPort)
- Game Studio: A studio that produces multiple blockchain games or metaverse projects. (Sky Mavis, Mythical Games)
- VR/Metaverse: A project involving a decentralized virtual world. (NFT lands, virtual economies). (Decentraland, The Sandbox)

Trading/Brokerage

This category includes centralized companies that are part of the trading infrastructure for the crypto economy.

Subcategories

- Pure exchange: A crypto exchange with a primary business model catering to retail traders/investors. (Bitso, PDAX)
- Trading Service/Platform: A centralized exchange that offers advanced trading features that may include derivatives trading, trading bots, and other trading services. (Binance)
- Market Maker/Liquidity: A trading shop that provides market-making to tokens and liquidity to their markets. It also includes firms that deliver OTC services. (Wintermute)
- Brokerage: A crypto financial company that offers full-suite offerings or prime services for institutions such as lending, custody, execution trading, etc. (Coinbase)
- Settlement/Execution – firms focused on institutional trade infrastructure like digital asset trade lifecycle, whether settlement or execution for a particular transaction. (Zero Hash)

Web3

This is our most nuanced category because our definition may not align with mainstream definitions that use it as a buzzword. The Block Research views it as an area where companies aim to decentralize core internet infrastructure and the web (not financial).

Subcategories

- Data/Storage: A decentralized protocol that focuses on providing decentralized data and storage solutions. It includes streaming and telecommunication services. (Arweave, Helium)
- Social Tokens: A social token protocol that aims to be used by brands, creators, and consumers. Note that if the company uses NFTs as the fan token, we categorize that company under NFTs/Gaming-Creator Economy. (Inflow Music)
- Social Networks: A decentralized protocol that attempts to replace mainstream social media platforms and decentralize them. It also includes a decentralized job market connecting freelancers with projects. (Naetion, Matters Lab)
- DAO/Community: A DAO or community that may not have a financial purpose (UnicornDAO)

- **Content Production:** A decentralized network that offers tools and services catered to content creation. (Joyn, KurateDAO, Mirror)
- **Advertising/Marketing:** A firm that utilizes blockchain for better marketing intelligence. (AdNode)
- **Rewards/Loyalty Points:** A protocol that grants rewards for shopping or rewards loyal users of a particular business. (RabbitHole, Social Good)

Data/Analytics/Information (DAI)

The category includes on-chain data providers, market data, research firms that provide quantitative and qualitative analysis of the digital assets markets, media organizations, firms involved in informational services, and educational resources.

Subcategories

- **Media/News/Publishing:** A media company, a centralized content publication firm that covers crypto markets. It potentially is the centralized counterpart of Web3 - Content Production. (Decrypt, Chainfeeds)
- **Chain Analytics/Compliance:** A company that provides blockchain monitoring/compliance solutions for governments or other businesses. (Chainalysis)
- **Research Companies:** A firm that provides research on the digital asset sector. (The Block, Messari)
- **Market Data/Analytics:** A company that provides crypto market data/analytics. (Coinmarketcap, Dune Analytics)
- **Education:** A firm primarily focuses on education about the blockchain industry as its primary business line. (Encode Club, QuestBook)

Enterprise

This category comprises all private blockchain projects which require consent to join its network, as opposed to public blockchains, which a network administrator manages.

Subcategories

- Supply Chain: A private blockchain project that focuses on provenance, product life cycle, etc. (Diamond Standard)
- Enterprise Banking Blockchain: An enterprise banking blockchain solution or initiative. (TassatPay)
- DLT: A distributed ledger technology provider. More often than not, it corresponds to private/permissioned blockchains, especially for the private sector. The most common subcategory in the enterprise category. (Contour, Lightnet)
- CBDC: A central bank digital currency initiative.
- Software-as-a-Service (SaaS): A firm that offers B2B blockchain solutions. (Lambda256)
- Advisory/Consulting: A firm that advises or consults companies on the intricacies of DLT. (IP Assets)
- Intellectual Property: A firm that deals with protecting IP (InvArch)
- Documents: A firm that aims to utilize blockchain technology to provide document organization, flow, and verification solutions. (Lygon)