

# Navigating Crypto: Industry Map

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March 2023

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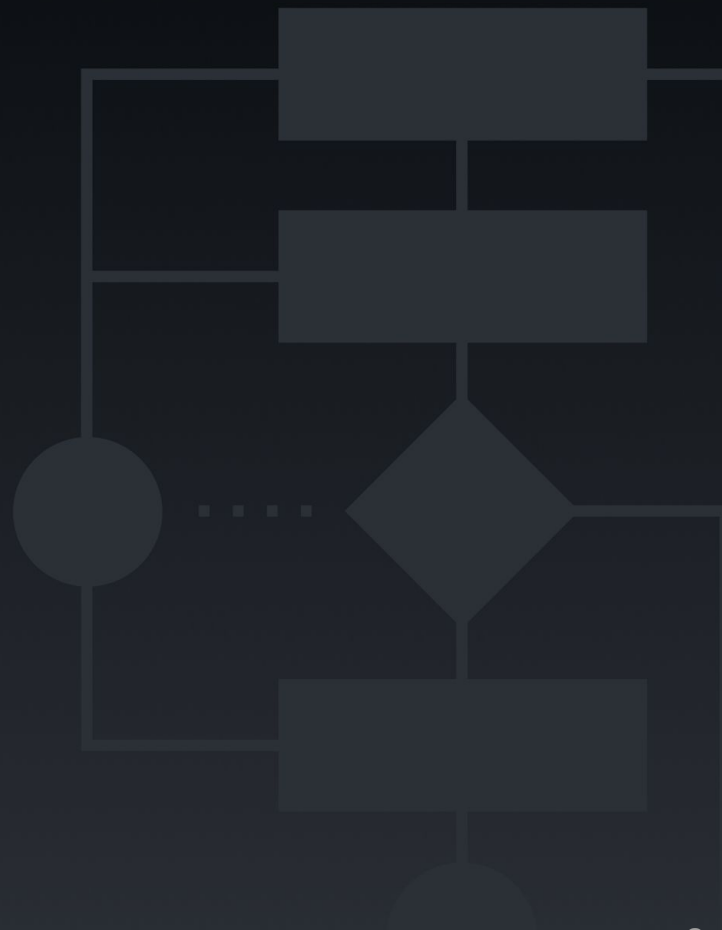
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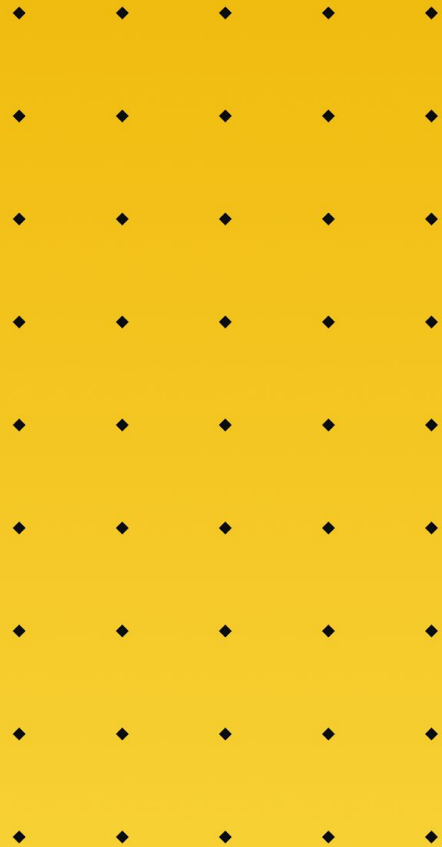
# About the Industry Map

The Industry Map provides an overview of the crypto ecosystem. In this report, we break down different verticals into subcategories and lay out a few projects in each of them. Additional details in terms of projects' descriptions and relevant metrics can be found in the following slides.

This map is compiled based on publicly available data, research, and qualitative analysis. It is not intended to be an exhaustive list of projects in the industry. Certain verticals, subcategories, or projects may or may not have been included as we aim to share a variety of key leaders as well as emerging players. Projects showcased are mapped according to their primary use cases. For suggestions, please provide your feedback [here](#).

The mention of specific projects does not constitute endorsement or recommendation by Binance.

# I. Infrastructure



# Infrastructure

## Vertical Spotlights

We identified 5 key areas of innovation.



### Scalability and Fairness

As L1s see increasing adoption, more projects aim to make blockchains more scalable by batching transactions off-chain and more fair by implementing efficient distribution of Maximal Extractable Value.



### Data Usability and Tooling

Data generated on blockchain networks are far from being fully usable by developers. Data querying and indexing service is a key innovation area to improve the current developer experience.



### Security and Privacy

The rising demand for network security and privacy has resulted in the emergence of projects aiming to prevent malicious data tracking, smart contract hacks, etc.



### Cloud Networks

We see more projects focusing on providing users with access to web-based services that may entail storage, computing, and content delivery through decentralized infrastructure.



### Connectivity

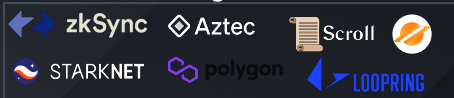
Layer-1 blockchains are far from being fully connected and interoperable. Numerous cross-chain solutions are being developed to improve the current on-chain user experience.

# Infrastructure

## Vertical Overview

### Scalability and Fairness

#### Zero-Knowledge ("ZK") Solution



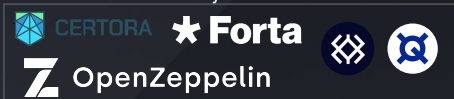
### Data Usability and Tooling

#### Remote Procedure Call ("RPC") Provider



### Security and Privacy

#### Security Solution



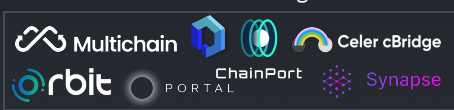
### Cloud Networks

#### Cloud Computing



### Connectivity

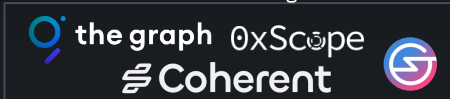
#### Cross-chain Bridge



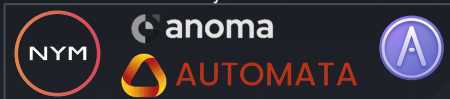
#### Optimistic Rollup Solution



#### Data Indexing



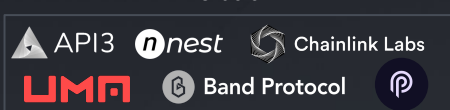
#### Privacy Solution



#### Content Delivery Network ("CDN")



#### Oracle



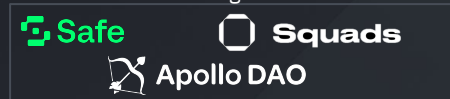
#### Maximal Extractable Value ("MEV") Solution



#### Smart Contract Automation



#### Multisig Wallet



#### Storage










# Infrastructure

## Subcategory Description





### Zero-Knowledge (“ZK”) Solution:

ZK Rollups / Validium protocols that prove validity of transactions before combining them to execute off-chain.

 <b>zkSync</b>	zkSync is a ZK rollup solution addressing Ethereum scalability issues with minimized security compromises.
 <b>Aztec</b>	Aztec Network is the first ZK rollup on Ethereum.
 <b>STARKNET</b>	StarkNet is a permissionless ZK rollup.
 <b>LOOPRING</b>	Loopring is a ZK rollup solution primarily for trading and payment.
 <b>polygon</b>	Polygon has multiple ZK rollup solutions (Hermes, Zero) designed to reduce computational costs of generating validity proofs through recursive proofs.
 <b>Scroll</b>	Scroll is an Ethereum L2 solution leveraging ZK rollup.
	ZKSpace, previously ZKSwap, is a Layer2 platform based on ZK-Rollups.

### Optimistic Rollup Solution:

Protocols that assume the validity of transactions and then combine them to execute off-chain.







 <b>OP</b>	Optimism is a L2 Optimistic rollup network.
 <b>ARBITRUM</b>	Arbitrum is an Ethereum Optimistic rollup solution.
 <b>boba</b>	Boba Network is a L2 scaling solution and a hybrid compute platform.
	Metis will be a Layer-2 scaling protocol that uses optimistic rollup technology.

# Infrastructure

## Subcategory Description (cont.)

### Maximal Extractable Value (“MEV”) Solution:

Solutions that prevent miners and validators from unfairly profiting by including, excluding, or reordering transactions in a block.

	Flashbots works on mitigating the negative externalities of current MEV techniques and avoiding risks that MEV cause to state-rich blockchains.
	Jito Labs builds high-performance systems to scale Solana and maximize validator rewards.
	Eden is an optional, non-consensus breaking transaction ordering protocol for Ethereum blocks.
	Rook enables users, protocols, and smart contracts to own MEV.
 manifold	Manifold is a multi-protocol middleware solution to improve connectivity between DeFi products.
	Skip Protocol is a MEV infrastructure for blockchains and protocols, currently serving Juno, Evmos, and Osmosis.


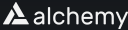


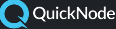





# Infrastructure

## Subcategory Description (cont.)


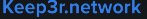
### Remote Procedure Call (“RPC”) Provider:

RPC is the most direct interface in which developers can communicate with the blockchain system.

 0x	Ox is a protocol that enables decentralized exchange of tokens on Ethereum.
 alchemy	Alchemy is a platform enabling developers to interact with the blockchain mainly with API calls.
 INFURA	Infura provides Ethereum API, IPFS API and Gateway, and ETH nodes-as-a-service.
 moralis	Moralis provides a suite of APIs for developers to seamlessly integrate blockchain into their dApps.
 QuickNode	QuickNode is a platform for developers to scale blockchain applications.
 Ankr	Ankr enables developers to build upon a distributed network of nodes.
 POKT	Pocket Network provides RPC access to Ethereum, Polygon, etc.
 NODEREAL	NodeReal is a one-stop blockchain infrastructure and services provider.





### Smart Contract Automation:

Platforms that enable users to automatically execute smart contracts.

 Gelato Network <small>Web3's Automation Protocol</small>	Gelato enables users to automate smart contract functions on Ethereum.
 Keep3r.network	Keep3r enables users to deploy bots to perform operations on-chain.

### Data Indexing:

Platforms that provide network data indexing and querying services.




 the graph	The Graph is an indexing protocol for querying networks like Ethereum.
 Coherent	Coherent connects to a wallet address and gets information about that address in a digestible way.
 0xScope	0xScope is a protocol that aims to standardize web2 & web3 data by building a knowledge graph.
	SubQuery offers data indexing on Polkadot, Cosmos, Avalanche, Algorand, NEAR, and Flare Networks

# Infrastructure

## Subcategory Description (cont.)




### Security Solution:

Protocols that contribute to security of blockchains.

	Certora aims to ensure smart contract and code security.
	Forta is a real-time detection network for security and operational monitoring of blockchain activities.
	OpenZeppelin provides security products to build and operate dApps.
	ImmuneFi is a leading bug bounty platform.
	QuantStamp provides security for hire, protecting over \$200B in digital asset risk from hackers.



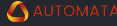

### Multisig Wallet:

Cryptocurrency wallets that require two or more private keys to sign and send a transaction.

	Safe is a platform to manage digital assets on Ethereum.
	Apollo Safe is a front end for the CW3 multisig contract.
	Squads is a multisig management protocol for web3-native teams.

### Privacy Solution:

Projects that contribute to the protection of user privacy.





	Nym is a decentralized and tokenized infrastructure providing privacy from the network to the application layer.
	Anoma is an intent-centric, privacy-preserving protocol for decentralized counterparty discovery, solving, and multi-chain atomic settlement.
	Automata provides a blockchain-based authentication solution that secures access to accounts and protects users with an active defence.
	Alter Network provides private and secure messaging across the blockchain.

# Infrastructure

## Subcategory Description (cont.)

### Content Delivery Network (“CDN”):

CDNs are decentralized, distributed networks that provide fast delivery of internet content.






 MESON.NETWORK	Meson Network is a bandwidth marketplace using blockchain to replace traditional sales model.
 Media Network	Media Network is a privacy-first and community-governed CDN.
 THETA	Theta Network is a blockchain infrastructure for video and media.
 livepeer	Livepeer Network is a protocol for developers who want to add live or on-demand video to their project.

# Infrastructure

## Subcategory Description (cont.)






### Computing:

Projects that provide users with access to computing services based on a decentralized infrastructure.

	4EVERLAND is a cloud computing platform that integrates storage, computing, and network core capabilities.
	Flux is a scalable decentralized cloud infrastructure.
	Latitude helps developers deploy dedicated servers globally through the bare metal cloud platform.
	Akash is a decentralized computing marketplace built for public utility.
	Render Network provides decentralized GPU based rendering solutions.

### Storage:

Projects that provide users with access to computing services based on a decentralized infrastructure.








 Filecoin	Filecoin is an open-source cloud storage marketplace, protocol, and incentive layer.
	Ethereum Swarm is a decentralized storage and communication system.
	Sia is a trustless storage marketplace allowing direct transactions without third parties.
	Storj offers low-cost cloud storage with zero-trust security.
 a	Arweave offer permanent and decentralized storage in an open ledger.

# Infrastructure

## Subcategory Description (cont.)

### Cross-chain Bridge:

Protocols that bridge tokens from one blockchain to another.







Project	Total Value Locked	Description
 Multichain	US\$1.6B	Fantom, Ethereum, BNB Chain, Polygon, etc.
 Hex	US\$339M	Ethereum, BNB, Polygon, Avalanche, etc.
 PORTAL	US\$271M	Ethereum, Solana, BNB Chain, etc.
 Synapse	US\$186M	Ethereum, BNB, Polygon, Arbitrum, etc.
 orbit	US\$189M	Ethereum, Ripple, BNB, Polygon, etc.
 ChainPort	US\$167M	Ethereum, BNB, etc.
 Celer cBridge	US\$141M	Ethereum, Arbitrum, BNB, etc.

# Infrastructure

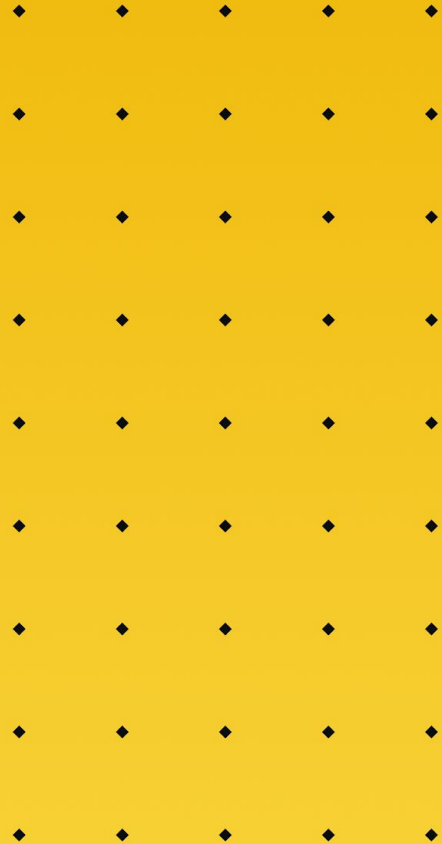
## Subcategory Description (cont.)

### Oracle:

Protocols that connect off-chain with on-chain data.

 Chainlink Labs	Chainlink decentralized oracle networks provide tamper-proof inputs, outputs, and computations to support smart contracts.
 UMA	UMA's Optimistic Oracle allows contracts to request and receive data.
 API3	API3 is a first-party oracle network.
 nest	NEST Protocol is the stochastic computer based on PVM.
 Band Protocol	Band Protocol is a blockchain-agnostic decentralized oracle.
 Pyth	Pyth delivers real-time on-chain market data

# II. Decentralized Finance ("DeFi")



# DeFi

## Vertical Spotlights

We identified 4 key areas of innovation.



### Issuance

We see the emergence of a more diverse suite of financial products in the DeFi space, such as synthetic assets, options, and structured products.



### Liquidity

Liquidity staking and collateralized debt position (“CDP”) are becoming more prominent, exposing users to a variety of on-chain liquidity opportunities.



### Trading

More diverse financial products are being traded on decentralized exchanges (“DEX”). In particular, the derivatives and perpetuals DEXs are growing rapidly.



### Risk Management

There are more projects focusing on providing users with monetary protection and other security measures against hacks, scams, and technical loopholes.



# DeFi

## Vertical Overview

### Issuance

Synthetic Assets



ALCHEMIX youves  
SYNTHETIX

### Liquidity

Liquidity Staking



LIDO ROCKETPOOL  
stader STAKEWISE Marinade

### Trading


Spot Decentralized Exchange ("DEX")



Curve PancakeSwap SUN  
UNISWAP SushiSwap Balancer

### Risk Management


Insurance



UNSLASHED Nexus Mutual


### Other

Stream Pay



Sablier Superfluid

### Option Vault



opyn Lyra

### Collateralized Debt Position ("CDP")



MAKER Helio

### Perpetual Decentralized Exchange ("DEX")



Perpetual Protocol dYdX  
GMX

### Security and Stress Testing



CERTIK ZOKYO. Chainalysis GAUNTLET

### Launchpad




team by TrustSwap PinkSale DxSale

### Structured Products



ARAXIS ElementFi convex finance  
TRANCHESS

### Lending



Compound TECTONIC

### Prediction Market





Polymarket azuro





# DeFi

## Subcategory Description

**Synthetic Assets:** Protocols that tokenize the derivative of an underlying asset.

Project	Total Value Locked	Description
SYNTHETIX	US\$465M	Synthetix leverages pooled collateral model that generates fees to SNX collateral providers from trades between Synths.
 ALCHEMIX	US\$49M	Alchemix offers same-asset loan products and accepts deposits in the form of either yield-bearing-assets or underlying collateral assets.
 youves	US\$32M	Youves is a decentralised, non-custodial and self-governed platform for the creation and management of synthetic assets.





**Option Vault:** Protocols that allow staking assets into vaults for deployment of option strategies.

	US\$47M	Ribbon combines derivatives, lending and a proprietary on-chain options exchange.
 opyn	US\$45M	Oryn allows for partially collateralized options, cash-settled European options, spreads, flash minting options, operators, and other option strategies.
 Lyra	US\$32M	Lyra offers cash-settled, European options and leverages Synthetix protocol assets (sUSD, sETH, sBTC, sLink) for collateral pools.
	US\$30M	Dopex is a maximum liquidity and minimal exposure options protocol.

# DeFi

## Subcategory Description (cont.)




**Structured Products:** Yield optimizers, yield tranching, automated LP managers, etc.

Project	Total Value Locked	Description
 convexfinance	US\$3.6B	Convex is a platform that boosts rewards for CRV stakers and liquidity providers.
 ARRAKIS	US\$283M	Arrakis is a protocol that specializes in concentrated & active liquidity management.
 TRANCHESS	US\$60M	Tranchess offers a yield enhancing asset tracker with varied risk-return solutions.
 ElementFi	US\$2M	Element is an open source protocol for fixed and variable yield markets.

# DeFi

## Subcategory Description (cont.)




**Liquid Staking:** Protocols that provide liquidity for staked assets.

Project	Total Value Locked	Description
L I D O	US\$10.4B	Lido provides daily rewards for staked assets with no lock-ups.
 <b>ROCKETPOOL</b> <small>DECENTRALISED ETHEREUM STAKING PROTOCOL</small>	US\$1.1B	Rocket is a decentralized staking pool on Ethereum.
STAKEWISE	US\$157M	By depositing ETH into StakeWise, users participate in staking and receive ETH rewards in return.
 <b>stader</b>	US\$115M	Stader offers liquid staking on several blockchains such as BNB Chain, Polygon, and Hedera.
 <b>Marinade</b>	US\$140M	Marinade offers liquid staking on Solana.


# DeFi

## Subcategory Description (cont.)

**Collateralized Debt Position (“CDP”):** Protocols that use collaterals to mint stablecoins.

Project	Total Value Locked	Description
 MAKER	US\$7.8B	MakerDAO enables the generation of stablecoin Dai.
	US\$1.2B	JustStables enables the generation of USDJ.
	US\$239M	Abracadabra enables the generation of MIM.







**Perpetual Decentralized Exchange (“DEX”):** DEXs for trading perpetuals.

GMX	US\$584M	GMX uses a multi-asset pool that earns liquidity provider fees from market making, swap fees and leverage trading.
dYdX	US\$343M	dYdX offers perpetuals as a non-custodial, decentralized margin product with collateral held as USDC and trades settled on Starkware zk-rollup.
 Perpetual Protocol	US\$17M	Perpetual Protocol is an on-chain perpetual futures DEX with deep liquidity and builder-ready composability.

# DeFi

## Subcategory Description (cont.)






**Spot Decentralized Exchange (“DEX”):** DEXs for trading assets.

Project	Total Value Locked	Description
 Curve	US\$4.6B	Curve is an exchange liquidity pool on Ethereum.
 UNISWAP	US\$3.7B	Uniswap is a cryptocurrency exchange which uses a decentralized network protocol.
 PancakeSwap	US\$2.2B	PancakeSwap is the leading decentralized exchange on BNB Chain.
 Balancer	US\$1.3B	Balancer is an automated portfolio manager and trading platform on Ethereum.
 SushiSwap	US\$581M	Sushi is a platform for users to swap, earn, stack yields, lend, borrow, and leverage.
 SUN	US\$476M	SUN is a platform for stablecoin swap, stake-mining and self-governance on TRON.

# DeFi

## Subcategory Description (cont.)



**Lending:** Protocols that allow users to lend assets.

Project	Total Value Locked	Description
	US\$5.6B	Aave allows users to earn interest, borrow assets, and build applications.
	US\$3.6B	JustLend is a decentralized lending protocol that allows users to supply, borrow, and earn.
 Compound	US\$1.8B	Compound is an algorithmic, autonomous interest rate protocol built for developers, to unlock open financial applications.
	US\$893M	Venus is a DeFi algorithmic money market protocol on BNB Chain.
	US\$126M	Tectonic is a cross-chain money market for earning passive yield and accessing instant backed loans.



# DeFi

## Subcategory Description (cont.)

**Prediction Market:** Protocols that enable users to wager, bet, and buy in future outcomes.

Project	Total Value Locked	Description
 Polymarket	US\$6M	Polymarket allows users to build portfolios based on their forecasts.
 azuro	US\$6M	Azuro offers decentralized betting.

**Stream Pay:** Payment modules that allow continuous settlement via token streaming.



 Sablier	US\$6M	Sablier is a token streaming protocol powered by Ethereum smart contracts.
 Superfluid	US\$2M	Superfluid handles composable stream of value with continuous settlement.






# DeFi

## Subcategory Description (cont.)

**Insurance:** Protocols that aim to provide users with monetary protection.

Project	Total Value Locked	Description
 Nexus Mutual	US\$255M	Nexus Mutual allows users to share insurance risk together.
 UNSLASHED	US\$31M	Unslashed provides insurance for decentralized finance projects.





**Launchpad:** Composable modules for token issuance, liquidity, etc.

 PinkSale	US\$190M	PinkSale allows users to launch tokens and create their initial token sale.
 team <small>by TrustSwap</small>	US\$113M	Team Finance is a toolkit that helps users create and grow their tokens.
 DxSale	US\$72M	DxSale is an Initial DEX Offering (“IDO”) launchpad.

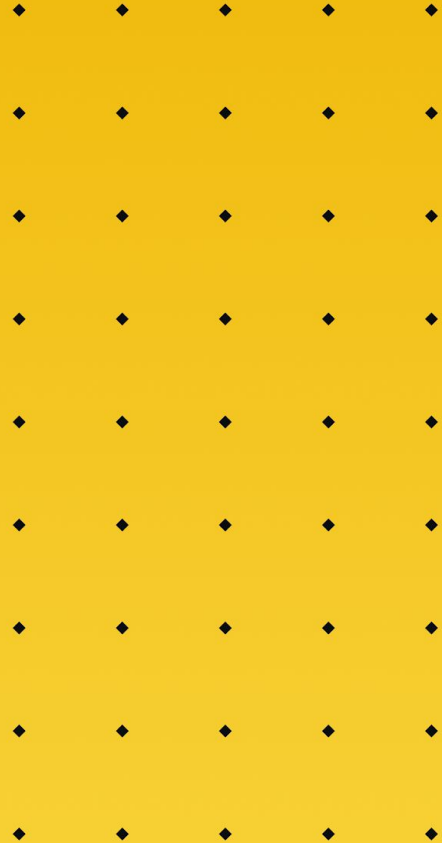
# DeFi

## Subcategory Description (cont.)

**Security and Stress Testing:** Modules that stress test or offer other security measures to protocols.

Project	Description
 CERTIK	Certik is a security-focused audit and ranking platform.
 Chainalysis	Chainalysis provides blockchain analysis for government agencies, projects, and financial institutions.
 ZOKYO.	Zokyo builds, secures, and funds crypto and DeFi projects.
 GAUNTLET	Gauntlet is a financial modeling platform that uses battle-tested techniques to inform protocol management.

# III. Non-Fungible Token ("NFT")



# NFT

## Vertical Spotlights

We identified 3 key areas of innovation.



### Marketplace

We see the emergence of NFT marketplaces targeting a variety of use cases, such as chain-specific listing, aggregators, and thematic curations. Users gain access to a wider range of buyer experiences.



### Financialization

There are more diverse NFT-based financial products and services, such as staking, lending, derivatives, fractionalization, etc. Users are exposed to liquidity opportunities for their previously illiquid NFT assets.



### Service

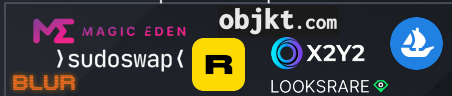
An increasing number of projects are helping users improve their experiences of purchasing NFTs and managing portfolios. Other projects provide services to help creators launch, secure, and store their NFTs more seamlessly.

# NFT

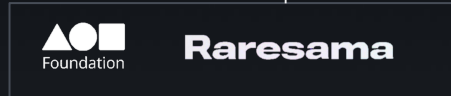
## Vertical Overview

### Marketplace

#### Open Marketplace



#### Curated Marketplace



#### Aggregator



### Financialization

#### Lending



#### Fractionalization



#### Buy-Now-Pay-Later



#### Derivatives

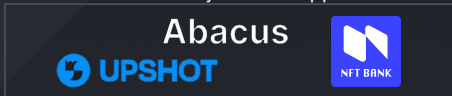


#### Options



### Service

#### Portfolio Analytics and Appraisal



#### Rental



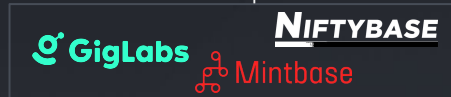
#### Membership and Content Gating



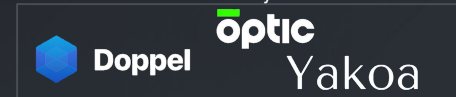
#### Storage



#### Launchpad









#### Safety



# NFT

## Subcategory Description

**Open Marketplace:** Platforms that allow for any NFT from any brand to be sold.

Project	Unique Active Wallets	Monthly Volume	Royalty Fees	Description
 BLUR	103K	US\$1.8B	Enforces a minimum royalty of 0.5%.	Blue is an NFT marketplace designed for Pro Traders.
	226K	US\$187M	Enforces a minimum royalty of 0.5%.	OpenSea is historically, the largest NFT marketplace.
 X2Y2	8K	US\$194M	Compulsory	X2Y2 is an NFT marketplace on Ethereum with 100% revenue shared with token stakers.
LOOKSRARE 	3K	US\$23M	Optional	LooksRare Is a NFT marketplace with rewards for participating.
<b>objkt.com</b>	14K	US\$1.6M	Compulsory	Objkt is the largest NFT marketplace on Tezos.
)sudoswap(	648	US\$1M	Optional	Sudoswap is a decentralized, on-chain NFT exchange based on an AMM model.
	83K	US\$263K	Compulsory	Rarible is a low-fee NFT marketplace.
 MAGIC EDEN	111K	US\$581	Optional for creators who don't adopt the Open Creator Protocol (OCP)	Magic Eden is the largest NFT marketplace on Solana.



# NFT

## Subcategory Description (cont.)

**Aggregator:** Platforms that allow users to easily trade NFT collections from different marketplaces.

Project	Monthly Users	Monthly Volume	Description
 element	38K	US\$2M	Element allows users to optimize for liquidity.
 gem	N/A	N/A	Gem is a low-fee NFT aggregator. Acquired by OpenSea.




**Curated Marketplace:** Selective platforms that focus on a certain type of NFTs, aesthetic, or set of values.

 Foundation	8K	US\$5M	Foundation is a curated, decentralized NFT marketplace.
 Raresama	N/A	N/A	Raresama allows users to create or browse NFT art collections and enjoy a diverse mix of artists.

# NFT

## Subcategory Description (cont.)

**Lending:** Protocols that allow users to collateralize NFTs for loans.

Project	Total Value Locked	Description
 BendDAO WEB3 DATA LIQUIDITY	US\$194M	BendDAO is a decentralized peer-to-pool based NFT liquidity protocol.
 JPEG'd	US\$28M	JPEG'd allows users to open CDPs using NFTs as collateral.
 nftfi	US\$27M	NFTfi is an NFT liquidity protocol.
FRAKT	US\$5M	FRAKT allows users to buy, sell, earn yield and get instant liquidity out of NFTs.






# NFT

## Subcategory Description (cont.)



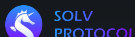
### Fractionalization:

Protocols that allow users to collectively own NFTs.

 fractional	Fractional enables collective ownership and governance of NFTs.
 NIFTEX	NIFTEX allows users to fractionalize NFTs.
 unic.ly	Unic.ly allows users to combine, fractionalize, and trade NFTs.




### Derivatives:

Protocols that allow users to trade NFT derivatives.

 MIMICRY	Mimicry is a derivatives protocol to long and short NFTs.
 nftperp	Nftperp is a perpetual futures DEX for NFTs.
 SOLV PROTOCOL	Solv is a one-stop platform for creating and trading financial NFTs.




### Options:

Protocols that allow staking NFTs into vaults for option strategies.

 hook	Hook is an NFT-native options protocol.
 NiftyOptions	NiftyOptions contracts allow users to create NFT options.
 PUTTY.FINANCE	Putty is a decentralized NFT options marketplace.

### Buy-Now-Pay-Later (“BNPL”):

Protocols that allow users to buy NFTs and pay for them later.




 Teller	Teller supports NFT buyers to finance their next purchase.
 CEDAR	Cedar offers buy-now-pay-later for NFT purchases.
 CYAN	Cyan offers buy-now-pay-later for NFT purchases.

# NFT

## Subcategory Description (cont.)




### Portfolio Analytics and Appraisal:

Tools that analyze or appraise NFTs.

 <b>Abacus</b>	Abacus is a decentralised appraisal tool for NFTs.
 <b>NFT BANK</b>	NFT Bank is a NFT portfolio management service.
 <b>UPSHOT</b>	Upshot builds a scalable NFT pricing infrastructure.




### Membership and Content Gating:

Tools that gate access to membership or content using NFTs.

 <b>AUDIUS</b>	Audius is a music streaming and sharing platform that puts power back into the hands of content creators.
 <b>HIGHLIGHT</b>	Highlight enables users to easily NFT-gate music, podcasts, videos, etc.
 <b>RareCircles</b>	RareCircles enable businesses to introduce NFTs to engage high-value users.



### Rental:

Protocols that allow users to rent NFTs.

 <b>DOUBLE</b>	Double Protocol is an NFT rental protocol.
 <b>reNFT</b>	reNFT is a multi-chain NFT rental protocol that enables uncollateralized renting, lending, and reward share.
 <b>Renfter</b>	Renfter is an uncollateralized NFT rental protocol.

### Storage:

Solutions for storing NFT data.



 <b>NFT STORAGE</b>	Nft.storage is a long-term storage service designed for off-chain NFT data.
 <b>Pinata</b>	Pinata is an IPFS solution for creators and developers.

# NFT

## Subcategory Description (cont.)



### Launchpad:

Modules for projects to launch their own NFTs.

 <b>GigLabs</b>	GigLabs enables brands to launch NFT projects.
 <b>Mintbase</b>	Mintbase enables users to build their own minters, markets, and NFT redeeming systems.
<b>NIFTYBASE</b>	Niftybase is a NFT collection launchpad.

### Safety:

Modules that offer security measures to protocols.

 <b>Doppel</b>	Doppel is an IP protection platform for NFTs.
 <b>Optic</b>	Optic monitors blockchains to reveal the origins of NFTs and how they have been reimagined, remixed, or copied.
<b>Yakoa</b>	Yakoa is an NFT fraud detection network.

# IV. Gaming



# Gaming

## Vertical Spotlights

We identified 3 key areas of innovation.



### Games

The question remains - what is the best way to most seamlessly implement crypto-based in-game economies without impacting gamer incentives in an unsustainable way.



### Game Development

We see the emergence of projects in the form of game studios, Initial Game Offering (“IGO”) launchpads, and developer kits that aim to help creators more smoothly develop and launch their games with crypto-based in-game economies.



### Player Experience

There are more diverse products and services that aim to improve player experience by lowering the barriers to explore and onboard into crypto-based games.

# Gaming

## Vertical Overview

### Games

#### Metaverse



#### Play-to-Earn

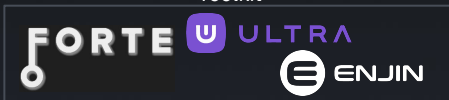


### Game Development

#### Game Studio



#### Toolkit

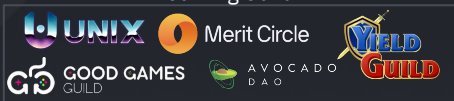


#### Launchpad



### Player Experience

#### Gaming Guild



#### Game NFT Marketplace






# Gaming

## Subcategory Description

### Metaverse:

Virtual worlds where users can engage in a variety of gaming experiences.










Project	Market Cap	Description
 Decentraland	US\$1B	Decentraland is a 3D virtual world where lands can be bought as NFTs.
 THE SANDBOX	US\$954M	The Sandbox is a virtual world where players can build, own, and monetize their gaming experiences on the Ethereum blockchain.
 StarryNift	N/A	StarryNift is an immersive VR-supported metaverse.

# Gaming

## Subcategory Description (cont.)

### Play-to-Earn:

Games where users can monetize their gaming experiences in the form of cryptocurrencies.

Project	Market Cap	Description
	US\$972M	Players of Axie Infinity collect and mint NFTs which represent digital pets and engage in the crypto-based in-game economy.
	US\$239M	StepN is a Web3 lifestyle app that rewards users with NFTs for walking, jogging, and running outdoor.
	US\$290M	Players can earn GALA and limited-edition NFTs through playing games on Gala platform.
	US\$97M	Hooked Protocol aims to provide streamlined and fun gamified learning mechanism and experience for new users.
	US\$71M	My Neighbor Alice is a multiplayer builder game, where players can buy virtual islands, collect and build items and meet new friends.
	US\$70M	Players can earn Trilium that gives them power in the Planet DAOs.
	US\$59M	Aavegotchi is an open-source, community-owned NFT gaming protocol.
	US\$30M	UFO Gaming is a decentralized gaming platform bridging traditional games onto the blockchain.
	US\$28M	Splinterlands is an NFT card game enabling players to play, trade, and earn.



# Gaming

## Subcategory Description (cont.)



### Game Studio:

Studios that specialize in developing crypto-based games.

 <b>Dapper</b>	NBA Top Shot, NFL All Day, UFC Strike, CryptoKitties, etc.
 <b>Immutable</b> GAMES STUDIO	Gods Unchained (Strategy Cards), Guild of Guardians (Action RPG).
 <b>Vulcan Forged</b>	Vulcan Verse (MMO RPG), Tartarus (Action Survival), etc.
 <b>MYTHICAL</b>	NFL Rivals, Blankos Block Party, Nitron Nation, etc.
 <b>sorare</b>	Football, NBA, MLB.




### Launchpad:

Platforms that provide services to creators to launch games with crypto-based in-game economies.

 <b>COCOS BCX</b>	Cocos-BCX aims to bridge more creators into crypto via GameFi incubation, investment, distribution, IGO, etc.
 <b>Seedify</b>	Seedify is a launchpad and incubator for crypto games.
<b>ROCO</b>	Roco provides services to crypto game developers, content creators and player communities.

### Toolkit:

Tools for incorporating crypto-based economies into games.





 <b>FORTE</b>	Forte is a game platform that enables game companies to create blockchain games and scale in-game economies.
 <b>ENJIN</b>	Enjin offers a suite of products that make NFTs easy for individuals, businesses, and developers.
 <b>ULTRA</b>	Ultra is a platform that brings games, digital assets, tournaments, and live streams to one place through a single login.

# Gaming

## Subcategory Description (cont.)






### Game NFT Marketplace:

Platforms for gamers to trade in-game items in the form of NFTs.

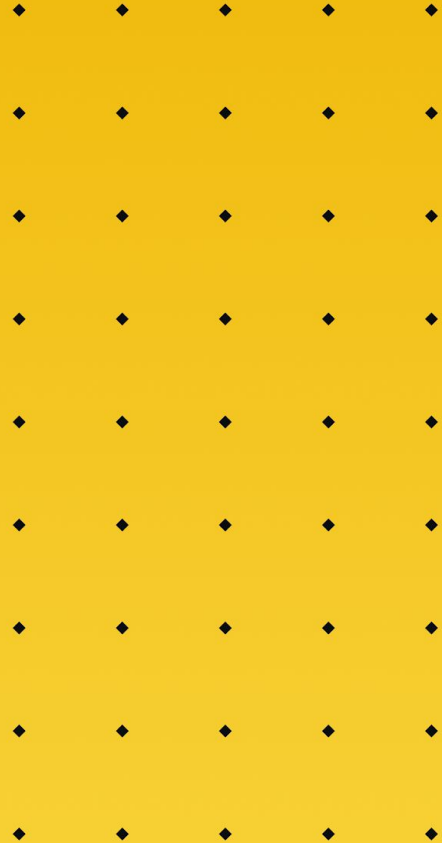
 AIRNFTS	AirNFTs is a game NFT marketplace on BNB Chain, Fantom, and Polygon.
 dMARKET	dMarket enables secure buying, selling, and trading of in-game NFTs.
 OCTOGAMEX	OctoGamex is a gaming NFT trading platform.
 FRACTAL	Fractal is an open marketplace for gaming NFTs.

### Gaming Guild:

Gamer communities that collectively monetize the play-to-earn model and lower its entry barrier.

 YIELD GUILD	YGG is a play-to-earn gaming guild.
 Merit Circle	Merit Circle is a guild that rewards players for their performance.
 AVOCADO DAO	Avocado uses play-to-earn model to reward its players.
 UNiX GAMES	UniX Gaming is a play-to-earn gaming guild.
 GOOD GAMES GUILD	Good Games Guild is a play-to-earn gaming guild.

# V. Real World Assets (“RWAs”)



# RWA

## Vertical Spotlights

We identified 2 key areas of innovation.



### RWA Rails

These projects provide the regulatory, technical, and operational rails upon which real world assets are brought into crypto.



### Asset Providers

Asset providers are focused on originating and creating demand for RWAs that maintain a specific underlying asset class.

# RWA

## Vertical Overview

### RWA Rails

#### Blockchains



#### Securitization / Tokenization



#### Regulatory

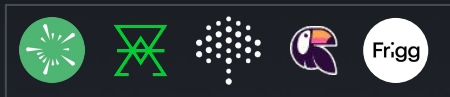


### Asset Providers

#### Real Estate



#### Climate



#### Private Fixed Income



#### Public Fixed Income + Public Equities



#### Emerging Market



#### Trade Finance








# RWA

## Subcategory Description






### Blockchains:

Permissioned / permissionless blockchains tailored specifically for RWAs.

	Intain is building blockchains for transparency and efficiency in capital market transactions, with initial focus on asset-backed investments.
	Provenance blockchain enables institutions and fintechs to seamlessly and securely issue, transact, and service digitally-native financial assets at scale.
	Realio is a EVM compatible, purpose-built layer 1 for RWAs.
	Polymesh is an institutional-grade permissioned blockchain built specifically for regulated assets.
	MANTRA Chain is the protocol for regulated assets and RWAs for the Cosmos ecosystem.

### Securitization / Tokenization:

Converting real world assets into legally compliant digital securities.





	Centrifuge offers a turnkey solution for the securitization and tokenization of structured credit assets.
	Securitize provides a suite of products dedicated to tokenization and issuer compliance.
	Oasis pro markets is a marketplace & alternative trading system for digital asset securities.
	INX Crypto Trading Platform is aiming to enable the listing & trading of regulated security tokens and cryptocurrencies.
	Curio Group help firms to unlock liquidity from the real world assets by tokenizing their assets and connecting them with investors.

# RWA

## Subcategory Description (cont.)

### Regulatory:

Services to ensure investor and issuer compliance.







	Quadrata network provides blockchain-verified KYC so users can participate in RWAs in a legally compliant way.
	Tokeny provides an enterprise-grade infrastructure to allow companies and financial actors to compliantly issue, transfer, and manage assets on blockchain.
	Verite is a collection of standardized protocols for decentralized identity that can help make it safer, easier and more efficient to do business across the transformative world of RWAs.
	Spruce is a toolkit for digital identity and can be used to reference investor and issuer compliance when transacting RWAs.

# RWA

## Subcategory Description (cont.)






### Real Estate:

Originate and create demand for real estate backed RWAs.

	Mattereum renders real-world physical assets (especially Real Estate) to be compatible in a e-commerce world.
	RealT fractionalizes the value of real estate properties into RWAs and creates a two sided market between sellers and buyers.
	Robinland provides fixed passive income to retail investors by tokenizing institutional-grade commercial real estate in a legal and decentralized fashion.
	Ekta creates a marketplace around tokenized and fractionalized real estate properties.
	Parcl allows users to trade the US real estate housing market through RWAs.
	Propy uses RWAs to automate the closing process for real estate purchases.

### Climate:

Originate and create demand for climate asset backed RWAs.

	Regen Marketplace creates a place to buy, trade, and retire ecological credits in the digital carbon market.
	KilmaDAO sells bonds and distributes rewards to KLIMA holders. Every bond the DAO sell adds to a treasury of real carbon assets.
	Flowcarbon vertically integrates across the entire carbon credit lifecycle, offering strategies & solutions ranging from RWA origination and financing, to credit sales and corporate carbon portfolio management.
	Toucan Protocol is an infrastructure provider built to bring environmental assets on-chain - starting with carbon credits - and making them more easily accessible for markets and builders.
	Frigg.eco works with a select group of project developers and helps them access refinancing via crypto by issuing green bonds on-chain.







# RWA

## Subcategory Description (cont.)






### Private Fixed Income:

Originate and create demand for private fixed income backed RWAs.

	On Maple, credit professionals manage fast-flowing lending businesses where pooled capital is lent to a wide range of institutional borrowers to fund business growth and operations.
	TrueFi brings collateral-free lending on-chain, maximizing capital efficiency for borrowers with proven real world assets and earning rates for lenders.
	Clearpool is a marketplace that allows institutions to borrow unsecured funds from a decentralized network of lenders, given proven creditworthiness.
	FortunaFi offers higher-yield investment products through the acquisition, pooling, and securitization of Real World Assets (RWA) on-chain.

### Public Fixed Income / Public Equities:

Originate and create demand for public fixed income and equity backed RWAs.





	Swarm is the first organization in the world to offer tokenized US Treasury bills and public stocks that are tradable on a regulated and decentralized platform.
	Ondo brings Institutional-Grade financial products, such as US Treasuries and Corporate Bonds, into DeFi
	Backed creates ERC-20 tokens that represent ownership of structured product units. Each token backed by different public securities.
	Vested is an investment advisor that is registered in the SEC, which allows DeFi investors to gain exposure to public equity products.
	BondbloX is a fractionalized bond exchange that offers an assortment of public corporate bond offerings.

# RWA

## Subcategory Description (cont.)





### Emerging Market:

Originate and create demand for RWA assets coming from Emerging Markets.

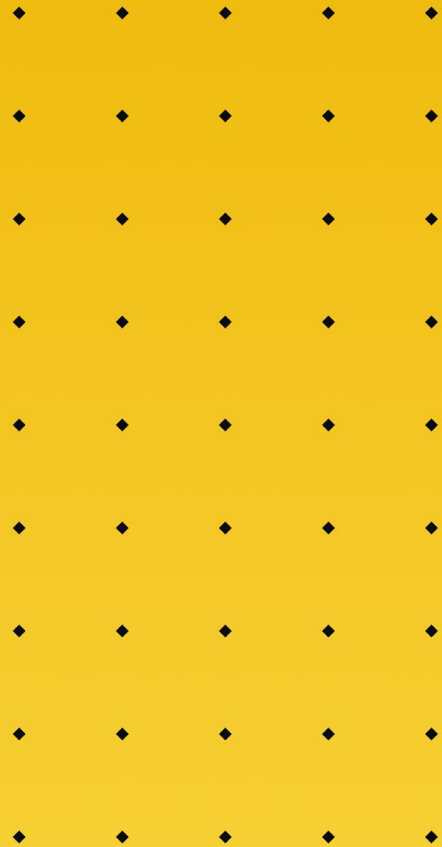
	Goldfinch is a decentralized protocol that allows for crypto borrowing without crypto collateral to primarily emerging market companies.
	Jia provides blockchain-based loans, investments and ownership to businesses in every corner of the world.
	Credix connects institutional investors across the globe with blockchain-based credit opportunities.
	Bru Finance is a decentralized lending protocol focused on agricultural commodities that is live across 1400+ custodian warehouses in India, with plans to expand to the South-East Asian, African, and the European markets.

### Trade Finance:

Originate and create demand for trade finance backed RWAs.

	Defactor is providing a DeFi based source of funding to help close the Trade Finance gap.
	Harbor is making trade finance more accessible, user-friendly, and efficient for businesses by using blockchain solutions.
	Polytrade is a decentralized trade finance platform focused on receivables financing.
	ConsolFreight is an ecosystem for freight forwarders looking to generate more businesses through crypto financing and DeFi accessibility.

# VI. Decentralized Social



# Decentralized Social Vertical Spotlights

We identified 3 key areas of innovation.



## Identity and Reputation

We see the emergence of blockchain-based identity and reputation networks targeting a variety of use cases, such as profession, skill certificate, membership, event attendance, etc.



## Social Media

The space is still in its nascent stage. We see a number of projects aiming to incorporate verifiability, composability, transparency, and shared ownership into social media platforms with use of the Web3 tech stack.



## Messaging

Blockchain introduces a new implementation of verifiable identity, which might potentially transform how conversations are carried out online, especially with regards to purchases, trading activities, and transactions.

# Decentralized Social Vertical Overview

## Identity and Reputation

### Identity Infrastructure



### Transferable Token



### Non-transferable Token



## Social Media

### Social Network Infrastructure



### Social Media dApp



## Messaging

### Messaging Infrastructure



### Messaging dApp





# Decentralized Social

## Subcategory Description



### Non-transferable Token:

A type of blockchain asset that is permanently tied to its owner, often used to prove one's identity and reputation.

 GALXE	Galxe is a Web3 credential data network that helps projects automatically issue on-chain credentials in the form of NFTs to incentivize and reward certain user behaviors.
RabbitHole	RabbitHole helps users build on-chain resumes by issuing credentials for completing tasks and learning skills.
 DEQUEST	DeQuest is a multi-chain GameFi platform that verifies the achievements, activities, and behaviours of players.



### Transferable Token:

A type of blockchain asset that can be transferred, often used to prove one's membership in a group or community.

 Roll	Roll creators mint social tokens on Ethereum as ERC20 tokens which can be easily traded on exchanges and used in applications across the web.
 POAP	POAPs are minted typically as a gift from an issuer to collectors in celebration of a special event.

### Identity Infrastructure:

Developer infrastructure for building decentralized identities.



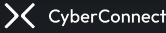
 Spruce	Spruce ID is an open-source stack for developers to build decentralized identity and verifiable credentials into their dApps.
 FRACTAL	Fractal helps developers build identities and privacy in a decentralized way.

# Decentralized Social

## Subcategory Description (cont.)




### Social Network Infrastructure:

Developer infrastructure for building decentralized social networks and graphs.

 LENS	Lens Protocol is a composable and decentralized social graph.
 DeSo	DeSo is a new layer-1 blockchain built to decentralize social media, and scale storage-heavy applications.
 CyberConnect	CyberConnect is a decentralized social graph protocol that helps dApps bootstrap network effects and build personalized social experiences.


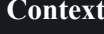

### Messaging Infrastructure:

Developer infrastructure for building decentralized messaging.

 XMTP	XMTP Labs aim to build a secure, open, and decentralized communication protocol that connects creators, communities, applications, and users.
 Dialect	Dialect enables interactive mobile messaging and notifications.
	Convospace is a decentralized conversation protocol through which users can comment and chat with each other across different dApps.

### Social Media dApp:

User interface for decentralized social networks and graphs in the form of dApp.





 farcaster	Farcaster is a sufficiently decentralized social network with a user-friendly mobile app interface.
 Context	Context is a social media dApp.
 Lenster	Lenster is a composable, decentralized, and permissionless social media web app built with Lens Protocol.

# Decentralized Social

## Subcategory Description (cont.)

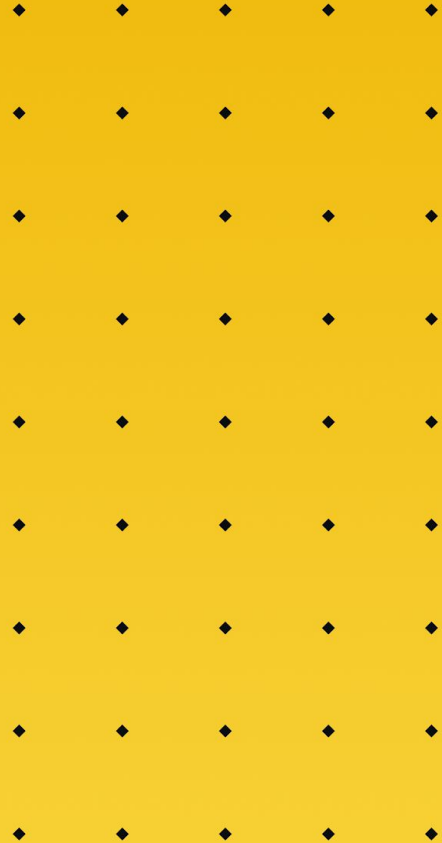
### Messaging dApp:

User interface for decentralized messaging in the form of dApp.

 Blockscan	Blockscan Chat is a messaging platform for users to message each other wallet-to-wallet, powered by Log-in With Ethereum.
 nansen	The vision of Nansen Connect is to become the go-to platform for the crypto community to discuss alphas and trading opportunities while avoiding spamming and noises on Discord channels.
 WalletConnect	WalletConnect Chat is a direct messaging protocol that can enable wallets to message each other.
 gm	Gm allows users to create a community with chat, forums, and token gating.



# VII. Artificial Intelligence



# Artificial Intelligence

## Vertical Spotlights

We identified 2 key areas of innovation.



### Smart Ledgers

Networks that use AI to automate tasks, and provide distributed ledger technology to create a blockchain dedicated to tracking those tasks.

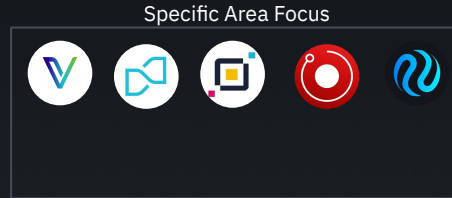
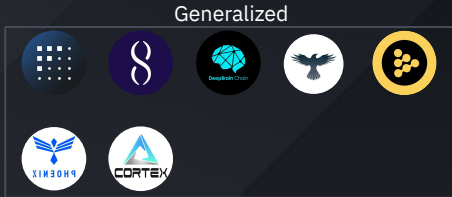


### AI-Powered Services

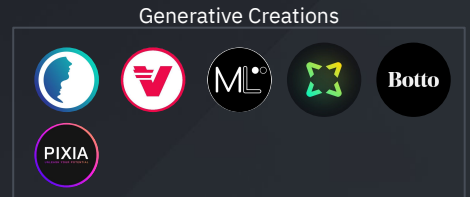
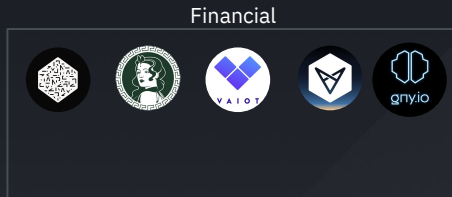
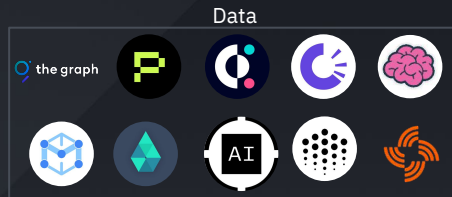
Projects that use AI on the backend to provide a service to users.

# Artificial Intelligence Vertical Overview

## Smart Ledgers



## AI-Powered Services










# Artificial Intelligence

## Subcategory Description






### Generalized:

Smart ledger for multi-purpose AI data storage and applications.

	Fetch.ai's blockchain and artificial intelligence features enable users to link to and access private datasets while performing tasks autonomously.
	SingularityNET aims to make it simple for anyone to develop, distribute, and sell AI services using their blockchain technology.
	DeepBrain Chain is a blockchain-specific ecosystem for training, developing, and deploying AI models for a wide range of services and products.
	Raven is developing a distributed network of compute nodes for Artificial Intelligence and Machine Learning on BNB Chain.
	iExec RLC uses the capabilities of blockchain and secure computing to create an AI-driven environment for Requesters, Providers, and Developers.
	Phoenix is a blockchain infrastructure platform for decentralized AI and privacy-computation scaling, consisting of a L1, Computation Platform (L2), and Data Oracle.
	Cortex is an open-source platform which makes AI accessible and allows the models and logic to integrate seamlessly with smart contracts and dApps.

### Specific Area Focus:

Smart ledger for specific types of AI data storage and applications.










	VeChain is a blockchain platform that focuses on providing supply chain management solutions.
	dKargo aims to revolutionize the global logistic sphere by offering AI-powered route optimization.
	PlatON is a privacy-preserving AI blockchain network.
	Render network connects users who want to perform render tasks (mainly images) with individuals who have spare Processors to process them.
	Injective is a layer-1 blockchain network that was created primarily for DeFi apps and offers AI "plug-and-play" financial components.

# Artificial Intelligence

## Subcategory Description

### Data:

Data services on the blockchain driven by the use of AI





 the graph	The Graph is one solution for AI developers planning to develop a model by requesting data from blockchains.		Ocean Protocol, a new AI crypto project, declared its goal to open data to the public, thereby decreasing the monopolistic control of organizations in the data and AI sectors.
	Phala Network provides access to privacy-preserving data for AI models.		Streamr Network is a fully decentralised and scalable protocol for many to many AI data pipelines, network analytics and instant messaging.
	Origin Trail is a decentralized knowledge graph - organizing AI-grade knowledge assets, making them discoverable and verifiable.		
	IQ.Wiki is a blockchain encyclopedia and is powered by AI.		
	Measurable Data Token (MDT) is a data-driven ecosystem.		
	Big Data Protocol is an AI-based protocol to source commercially valuable data from professional data providers, tokenize it, and make it liquid.		
	OraiChain is an AI Layer 1 for Data Economy & Oracle Services		

# Artificial Intelligence

## Subcategory Description







### Financial:

Financial services on the blockchain driven by the use of AI.

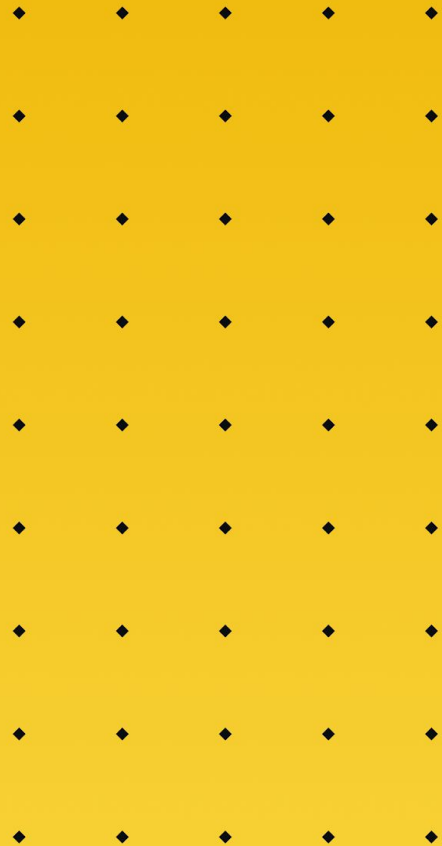
	Numeraire is an autonomous hedge fund, which focuses on cryptocurrency strategies and use machine learning to drive its investment strategy.
	Hera Finance is a AI-powered multichain dex aggregator.
	Vaiot is a FAA-regulated digital assets issuer, using AI and Blockchain to synergize AI Assistants and on-chain contracts.
	Gny.io employs machine learning and blockchain technologies to deliver financial predictive tools for the crypto trading community.

### Generative Creations:

Generative creations on the blockchain driven by the use of AI.

	Alethea AI is building web 3 infrastructure for generative AI such as CharacterGPT, Text-To-Character, and other dApps.
	Verasity is a blockchain company creating AI experiences in esports, AdTech, and digital rights management.
	Modulus Labs is bringing AI on-chain using ZK Proofs, and creating experiences like on-chain games and imagery.
	AlgalonAI is a blockchain platform that specializes in providing a range of generative artificial intelligence tools and solutions for the blockchain industry.
	Botto is a decentralized, autonomous artist governed by the users.
	Pixia is an AI that allows users to generate art on twitter, create NFT collections and staking contracts!

# VIII. Decentralized Science



# Decentralized Science

## Vertical Spotlights

We identified 4 key areas of innovation.



### Funding

Decentralized autonomous organizations (“DAOs”) are funding scientific research through community-based decision making.



### Research

We find that there are a number of different DeSci organizations that are directly impacting research operations.



### Data

Data related to scientific research is being tokenized and sold on different blockchain-based marketplaces.



### Publishing / Review

Blockchain primitives are adding more flexibility to the publishing, IP, and peer-review processes commonly found within scientific research.



# Decentralized Science

## Vertical Overview

### Funding

#### Generalized



#### Specific Focus Areas



### Research

#### Ecosystem



#### Lab Provider



#### Methods



### Data

#### Collection



#### Management



### Publishing/ Review

#### Publishing



#### Review








# Decentralized Science

## Subcategory Description






### Generalized:

Generalized funding for decentralized science initiatives

	Vibe Bio is building a DAO of patients, scientists, and partners to invent and invest in promising treatments for new medicines through alternative funding models.
	Crowd Funded Cures facilitates outcomes-based financing for open source medicines in aims of having affordable medicine for everyone.
	Experiment is a community for funding and sharing real scientific discoveries.
	Giveeth creates a direct crypto donation platform on Ethereum that onboards for-good projects, including those related to scientific research.
	The DeSci Foundation enables the potential of applying new technologies, incentives, processes, and funding models to the scientific ecosystem.

### Specific Area Focus:

Specific area focus funding for decentralized science initiatives





	VitaDAO is a DAO collective for funding longevity research.
	Athena DAO is a decentralized collective to fund women's reproductive health research and drug discovery.
	HairDAO, a decentralized autonomous organization in search of a cure for hair loss.
	MoonDAO is an international collective of people united by the mission of decentralizing access to space research and exploration.
	GainForest is a decentralised fund using artificial intelligence to measure and reward sustainable nature stewardship.

# Decentralized Science

## Subcategory Description




### Ecosystem:

Protocols that enable scientific research collaboration and discussion.

	OpSci open science ecosystem that unlocks data silos, revolutionizes collaboration, and democratizes funding.
	ResearchHub provides an open forum where users can post in scientific publications, upload preprints through our notebook feature, generate scientific bounties and discuss science
	SCINET is a blockchain-based ecosystem dedicated to life sciences.
	Halogen is a knowledge base with channels for optimal coordination between humans, groups of humans, and AI's.




### Lab Providers:

Collaboratives that are decentralizing access to research labs.

	Lab DAO open, community-run network of biomedical laboratories.
	JOGL is the first research and innovation laboratory operating as a distributed, open and massive mobilisation platform for collaborative task solving.
	In Real Lab is a molecular biology co-working space and educational course provider.

### Methods:

Protocols that establish research methods for decentralized science.






	Peralara PBC is a distributed biotech in the sense that it employs scientists around the world to work together to build 'cure roadmaps' for identifying new treatments for patients and foundations.
	LunCo helps researchers conduct research on complex projects like planning civic CO2 tracking constellations, Lunar colony etc.
	In Real Lab is a molecular biology co-working space and educational course provider.

# Decentralized Science

## Subcategory Description




### Collection:

Protocols focused on the collection of data for decentralized science.

	Fleming Protocol is a decentralised platform that connects patients communities and industry collaborators to tackle unmet health needs.
	GenomesDAO strives to meet the increasing expectations of research organizations, institutions as well as customers for the security of genomic data
	Reputable Health is a biohacking and personalized wellness community that allows members to sell their data to third parties over places like the Ocean marketplace.
	Data Lake is a DeSci project creating a global Medical Data Donation system based on blockchain technology to support medical research and AI.
	Health X Change aims to push medical research forward while compensating patients for data that they own.

### Management:

Protocols focused on the management of data for decentralized science.





	DBDAO is a database solution for decentralized science that uses NFTs and DAOs to do so.
	CureDAO is a collaborative framework for personalized, precision health data.
	Kamu is a decentralized data supply network created to address the ongoing reproducibility crisis in science.

# Decentralized Science

## Subcategory Description



### Publishing:

Protocols enabling the publication of decentralized science research.

	Molecule marketplace matches projects with prospective investors, and results can be added as IP-NFT metadata.
	Sci2Sci is an electronic lab notebook that is paired with a publishing platform that maintains research data in an open access environment.
	deScier is a community formed by highly qualified talents to collaborate on editorial work for publishing scientific papers and share financial gains.
	Flashpub is a platform for micro publications and articles

### Review:

Protocols focused on the review of decentralized science research.

	Ants-Review is a Bounty-like system for Open Anonymous Scientific Peer-Reviews
<b>Longevity Review</b>	Longevity Review is a project facilitated by VitaDAO that provides funding for researchers to review each other's work.
	Decentralized Science provides a public repository of Open Peer Reviews and a reviewers' reputation network

# IX. Decentralized Autonomous Organization (“DAO”) Tooling



# DAO Tooling

## Vertical Spotlights

We identified 2 key areas of innovation.



### Governance Structure

We see the emergence of tools for DAO community managers to improve their organizational structure by more effectively managing membership-based access and developing frameworks to set up DAOs for specific purposes.



### Operations Management

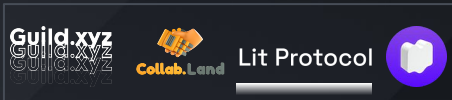
We see a number of projects aiming to incorporate functionalities such as treasury, contribution, and compensation management into DAOs with use of the Web3 tech stack.

# DAO Tooling

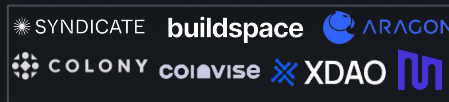
## Vertical Overview

### Governance Structure

#### Access Control

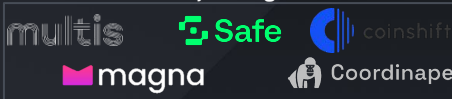


#### Framework



### Operations Management

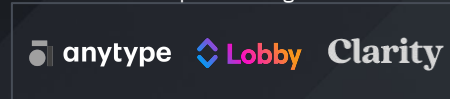
#### Treasury Management



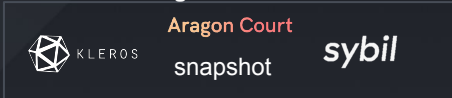
#### Contribution



#### Workspace Management



#### Voting and Arbitration



#### Analytics








# DAO Tooling

## Subcategory Description







### Access Control:

Tool for managing access to internal platforms based on DAO membership.

	Guild enables platform-agnostic communities by offering automated membership management.
	Collab.Land services DAOs, NFT communities, brands, and creators of projects by enabling easy token gating.
<b>Lit Protocol</b>	Lit provides decentralized cryptography for access control, compute, and encryption.
	Metaforo enables Web3-native forums with governance, incentives, and on-chain profiles.

### Framework:

A combination of tokens and tools for setting up DAO structures for general use cases or specific purposes.






	Syndicate apps and infrastructure allow users to build their community and invest collectively.
	Coinwise offers a suite of no-code tools for airdrops and NFT memberships.
<b>buildspace</b>	Buildspace enables developers to easily build their DAOs with the use of Javascript language.
	Aragon enables users to build DAOs on open-source infrastructure with governance plugins.
	Colony is a DAO toolkit that incorporates functionalities such as tokens, reputation, governance, token sales, etc.
	XDAO is a multichain DAO builder for jointly managing crypto assets and DeFi projects.
	Metropolis helps DAOs distribute control to contributors on-chain.

# DAO Tooling (cont.)

## Subcategory Description




### Treasury Management:

Tool for setting up a DAO's financial infrastructure.

 multis	Multis helps Web3 companies secure, manage, and spend cryptocurrencies and USD.
 magna	Magna enables companies to airdrop, stream, and distribute tokens to team, investors, and community on custom unlock schedules.
 Coordinape	Coordinape allows DAO members to reward each other and makes community payments more transparent.
 Safe	Safe is a multisig smart contract wallet that secures your business's funds by requiring multiple signatures to authenticate a transaction.
 coinshift	Coinshift provides multisig tooling for crypto organizations




### Contribution:

Tool for acquiring and managing contributions from the community.

 GITCOIN	Gitcoin is a platform where contributors get paid to work on open source software in Python, Rust, Ruby, JavaScript, Solidity, HTML, CSS, Design.
 L3	Layer3 helps projects reach, acquire, and retain users and contributors with interactive experiences.
 Dework	Dework provides Web3-native project management with token payments, credentialing, and bounties.

### Workspace Management:

Tool for managing a DAO's workspaces and documentations.


 anytype	Anytype is a software that aims to break down barriers between applications, give back privacy and data ownership to users.
 Lobby	Lobby offers token-gated documentation for Web3 communities.
 Clarity	Clarity allows users to share task boards and docs, manage access with tokens, receive bounty payouts, and build contributor reputations.

# DAO Tooling (cont.)

## Subcategory Description


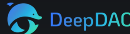

### Voting and Arbitration:

Tool for coordinating transparent voting and arbitration in DAOs.

 KLEROS	Kleros is a decentralized arbitration service for disputes arising in the Web3 economy.
<b>Aragon Court</b>	Aragon Court helps users handle subjective disputes that require the judgment of human guardians.
<b>sybil</b>	Sybil is a governance tool for discovering delegates, built by Uniswap.
<b>snapshot</b>	Snapshot is a platform where projects can create proposals for people to vote on using cryptocurrency.

### Analytics:

Tool for analyzing data generated by and relevant to a DAO.

 Tally	Tally is a dashboard aggregating on-chain data from protocols' governance for research and analysis.
 DeepDAO	DeepDAO enables discovery, listing, and analytics for DAOs.
 boardroom	Boardroom is a governance portal enabling strategic insights for DAOs.

# About Binance Research

Binance Research is the research arm of Binance, the world's leading cryptocurrency exchange. The team is committed to delivering objective, independent, and comprehensive analysis and aims to be the thought leader in the crypto space. Our analysts publish insightful thought pieces regularly on topics related but not limited to, the crypto ecosystem, blockchain technologies, and the latest market themes.



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