



Consensus 2021

Chainlink 2.0 Whitepaper and Roadmap

Chainlink 2.0: Next Steps in the Evolution of Decentralized Oracle Networks

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v1.0

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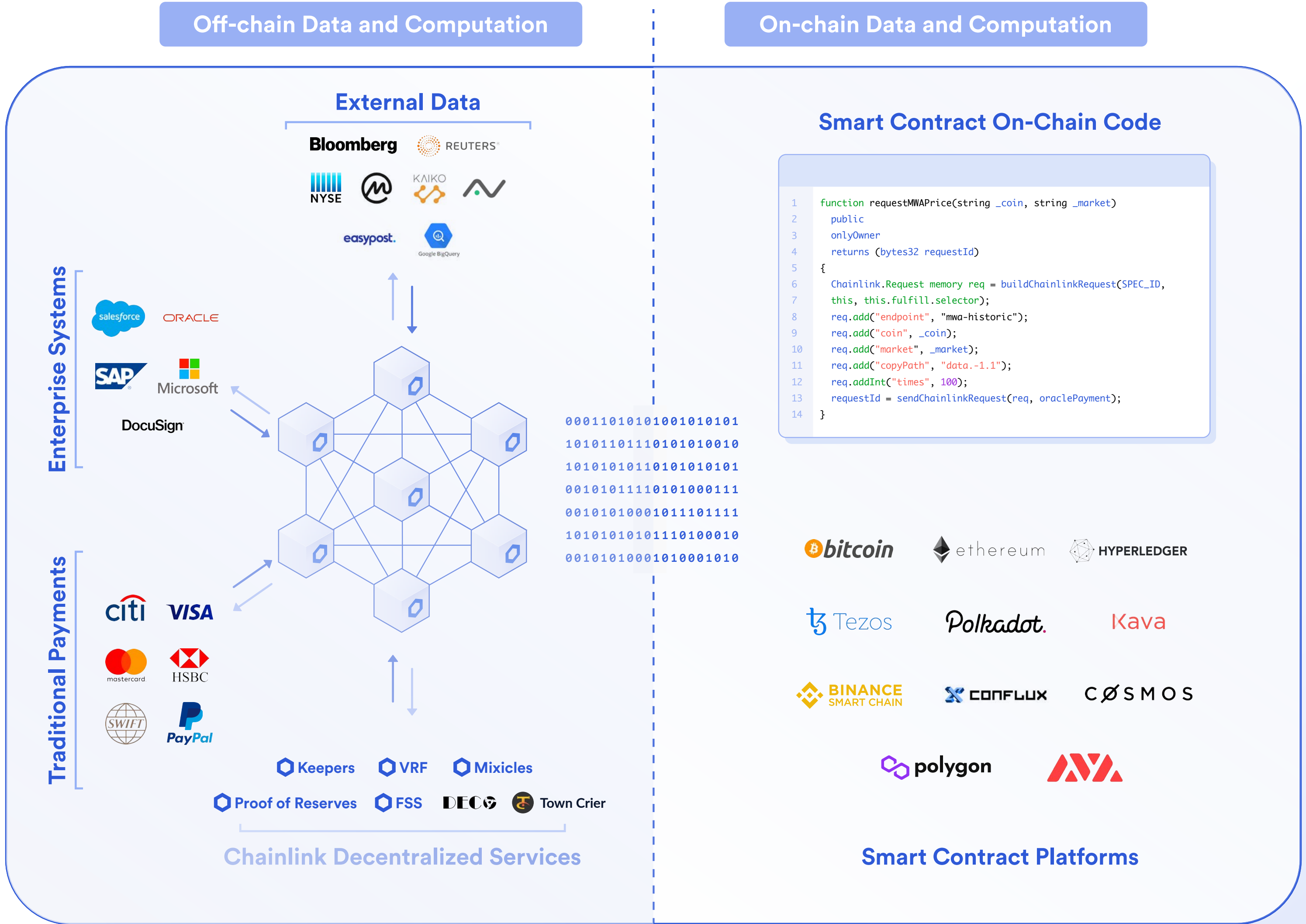
⁴The author is a faculty member at University of California, San Diego. She co-authored this work in her separate capacity as an advisor to Chainlink Labs.

⁵The author is a faculty member at University of Illinois Urbana-Champaign. He co-authored this

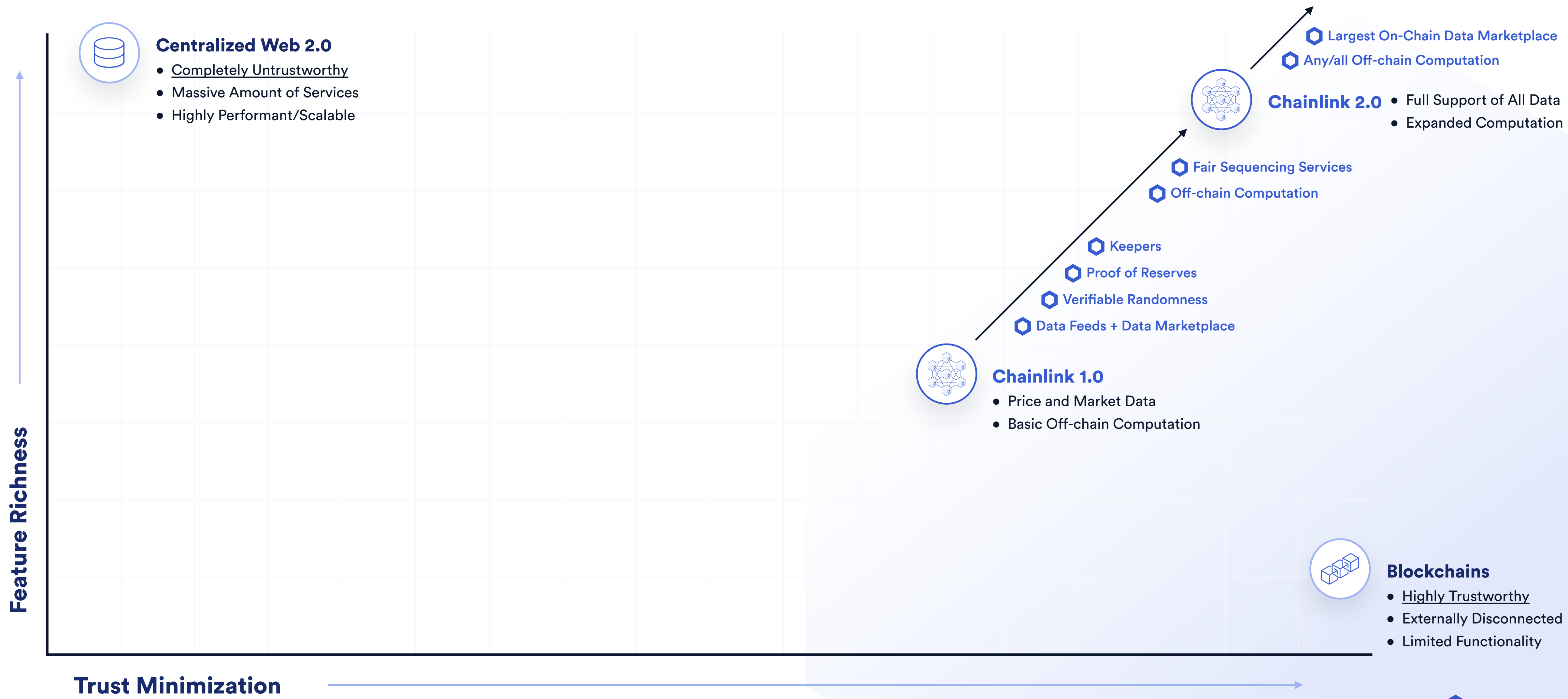
The Decentralized Infrastructure Continuum/Trade Off



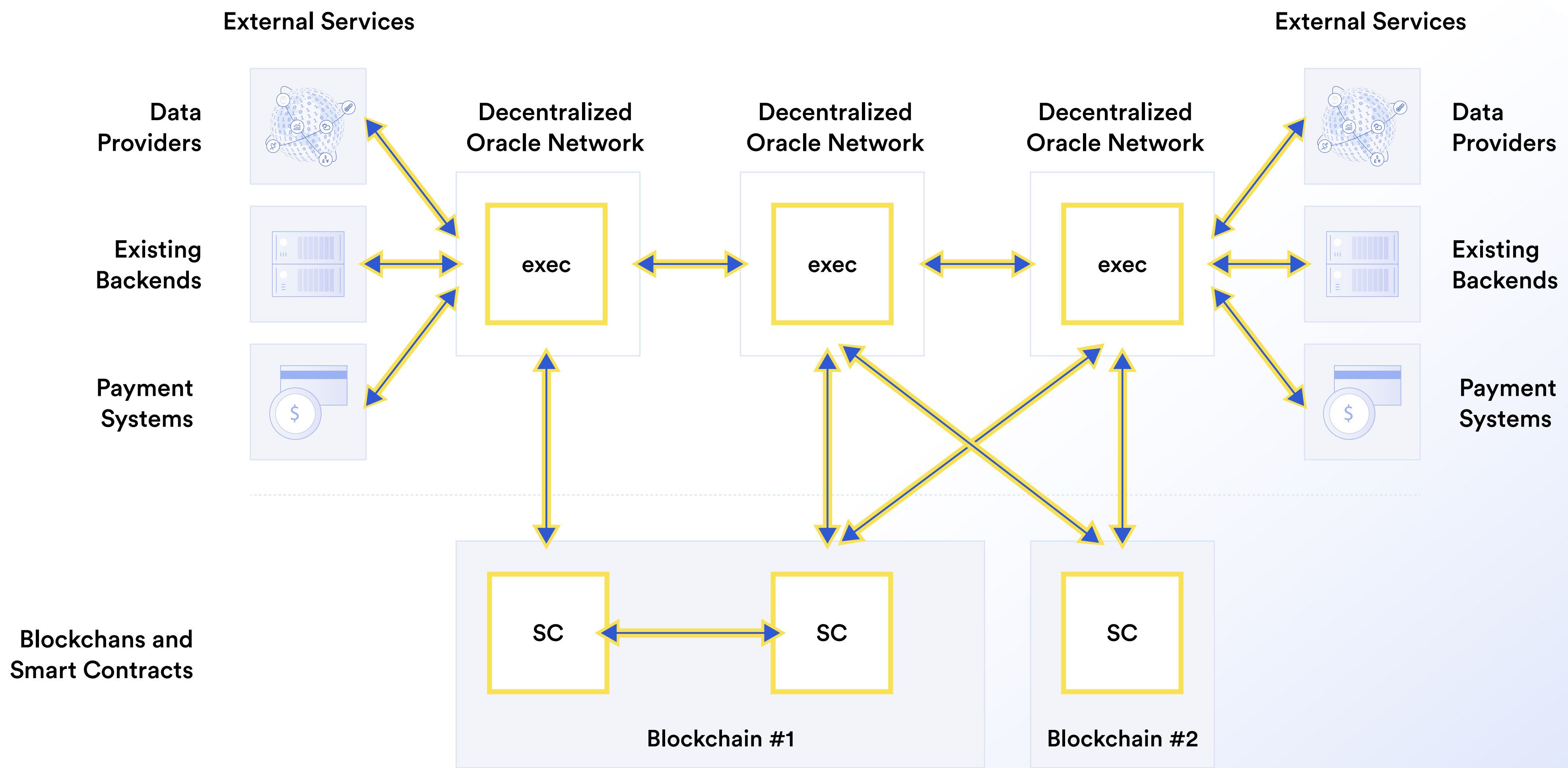
Combining On-chain & Off-chain Systems Securely/Reliably



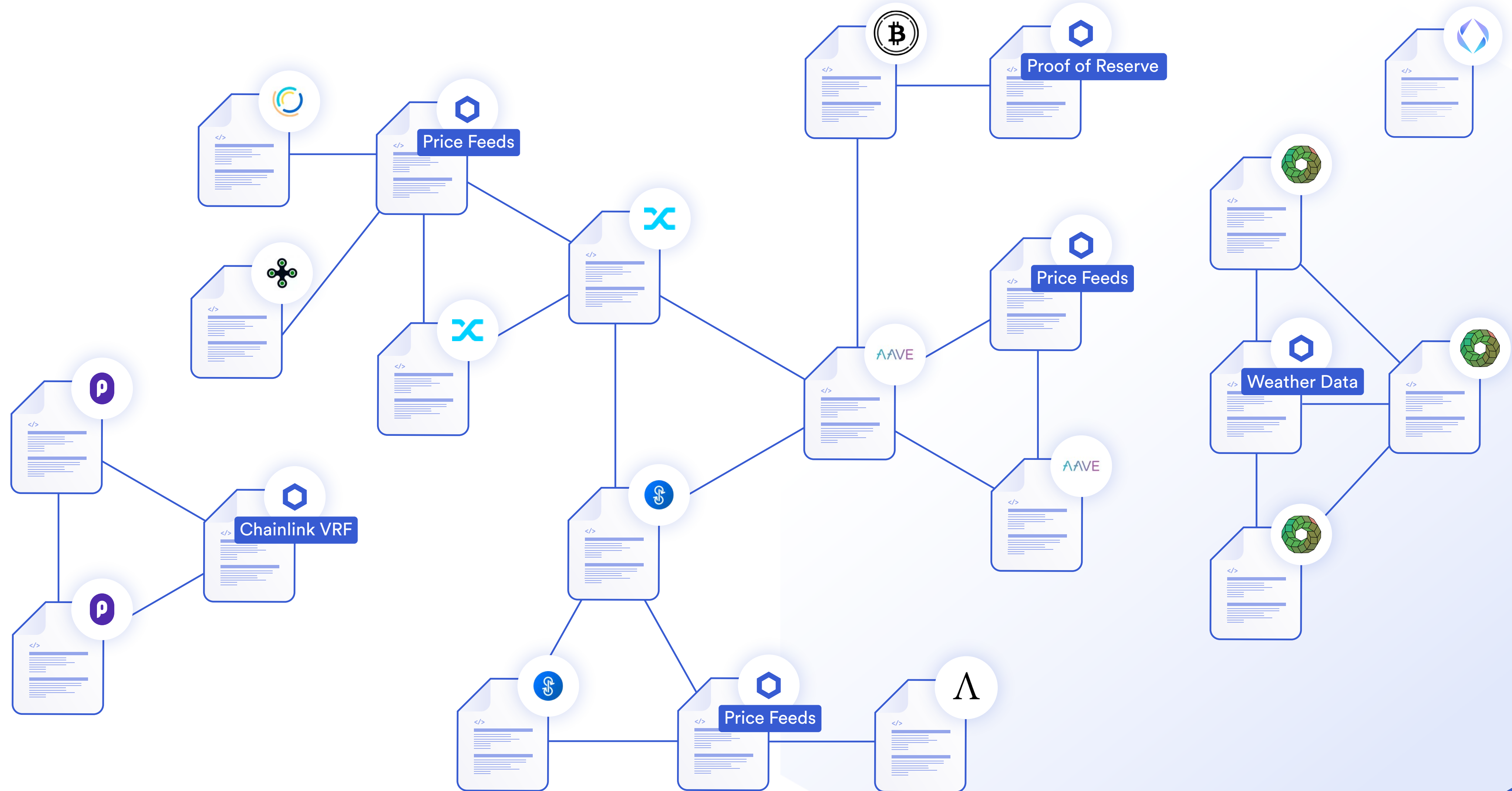
Decentralized Oracle Networks Create Key Functionality



Hybrid Smart Contracts Will Be Continually More Advanced



Hybrid Smart Contracts Already Happening as DeFi



Over \$30 Billion in DeFi is Using or Integrating Chainlink



“With partnerships across DeFi and traditional markets, the ground the Chainlink team has covered in a short time is nothing short of breathtaking.”

Forbes

“Chainlink has taken a commanding lead among DeFi oracles, a perch that's been strengthened with frequent announcements of new partnerships and node operators.”

 **coindesk**

“Chainlink's price oracles are quickly emerging as the industry-standard data source for the DeFi sector”

 **COINTELEGRAPH**

Chainlink is Expanding into New Data and Computation

Highly Validated Data

Price and Market Data

CoinGecko

CoinMarketCap

BNCbravnewebots.com

KAIKO

amberdata.io

CRYPTO COMPARE

ALPHA VANTAGE

BINANCE

TF-Systems

LinkPool

VALIDATION CAPITAL

Flews.io

SIMPLY VC

Chainlink Network

Newroad

ZTAKE

EAST STAKE

SNZ

ChainLayer

Certus.One

DeFi Contracts + CeFi

SYNTHETIX

AAVE

Set Protocol

Ampleforth

LOOPRING

8Y/5X

Neus+Mudat

OPENLAW

easyfi

b2x

HAVEN

1inch

LinkPool

opium.exchange

orchid

tornado

DigiTit

gelato

BULLIONIX

Bancor

Bankability

GAMERKASH

sandbank

PLASM

Bitcoin

Polkadot

Matic

tr

BINANCE SMART CHAIN

Kava

HYPERLEDGER

Hdac

CØSMOS

CYPHERIUM

zilliqa

CONFLUX

icon

elrond

Cere Network

Hedera Hashgraph

QuarkChain

IOST

ONTology

Harmony

TOMOCHAIN

Morpheus Labs

SOLANA

WAX

STANDARD TOKENIZATION PROTOCOL

celf

ALKEMI

CASPERLABS

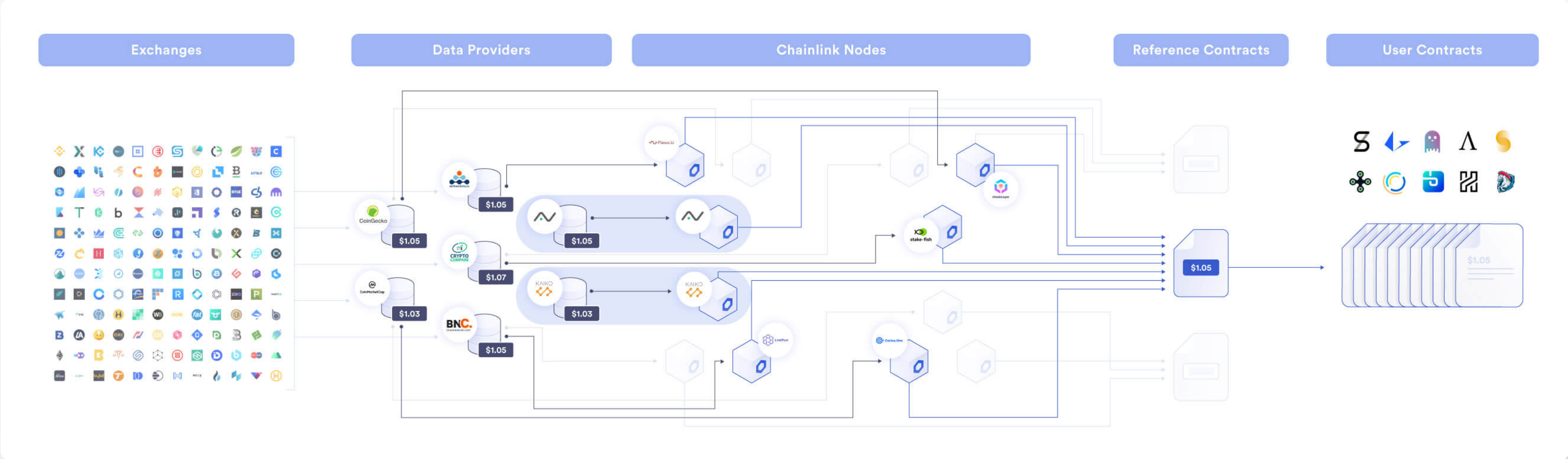
POSEIDON

QAN

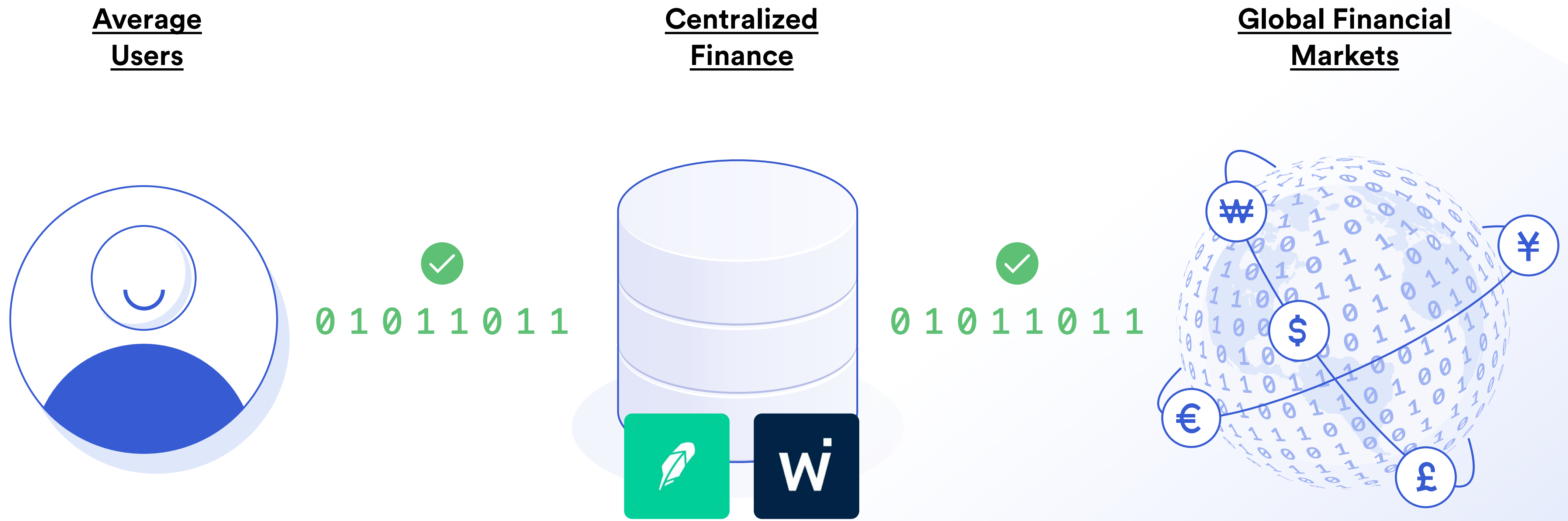
INT

Global Finance Industry

Price Data Enables DeFi to Reinvent the Financial System



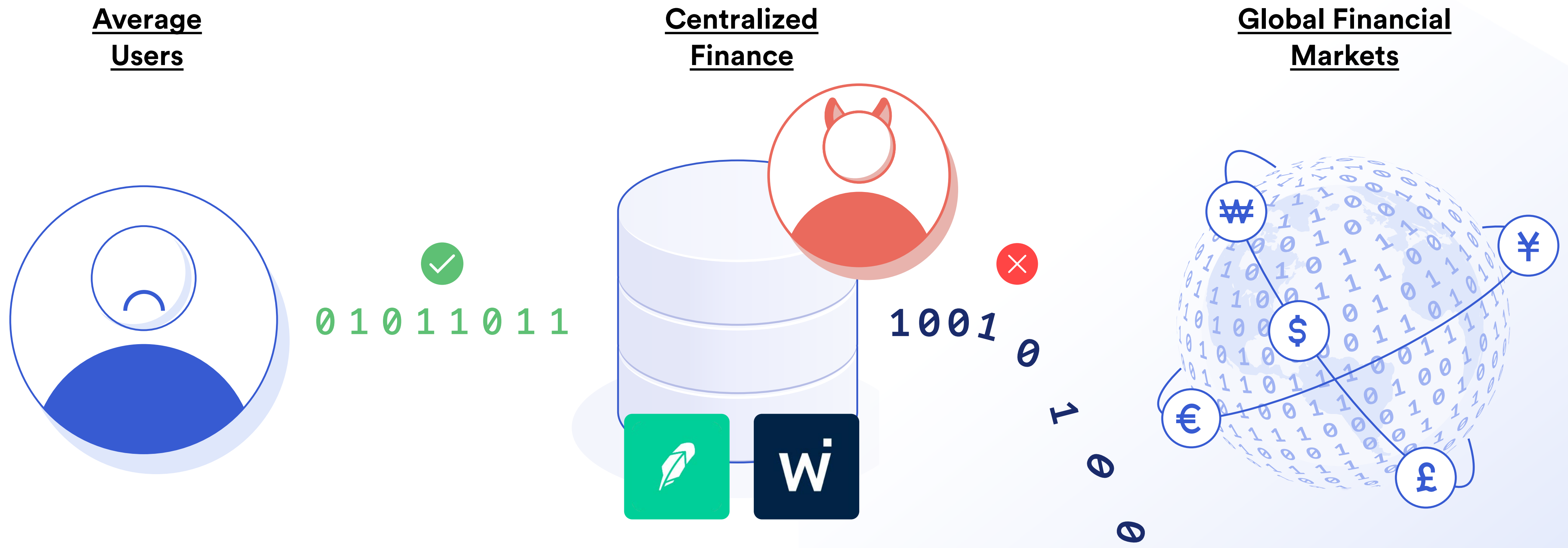
CeFi Financial Products Work Well in Predictable Conditions



Market*Watch*

Robinhood day traders are squeezing the hedge funds — here's why it may continue

CeFi Financial Products Will Not Support the Average User



VICE

Robinhood Stops Users From Trading GameStop Stocks, Other Reddit YOLO Picks

DeFi Completely Redefines a User's Relationship to Markets

Average
Users



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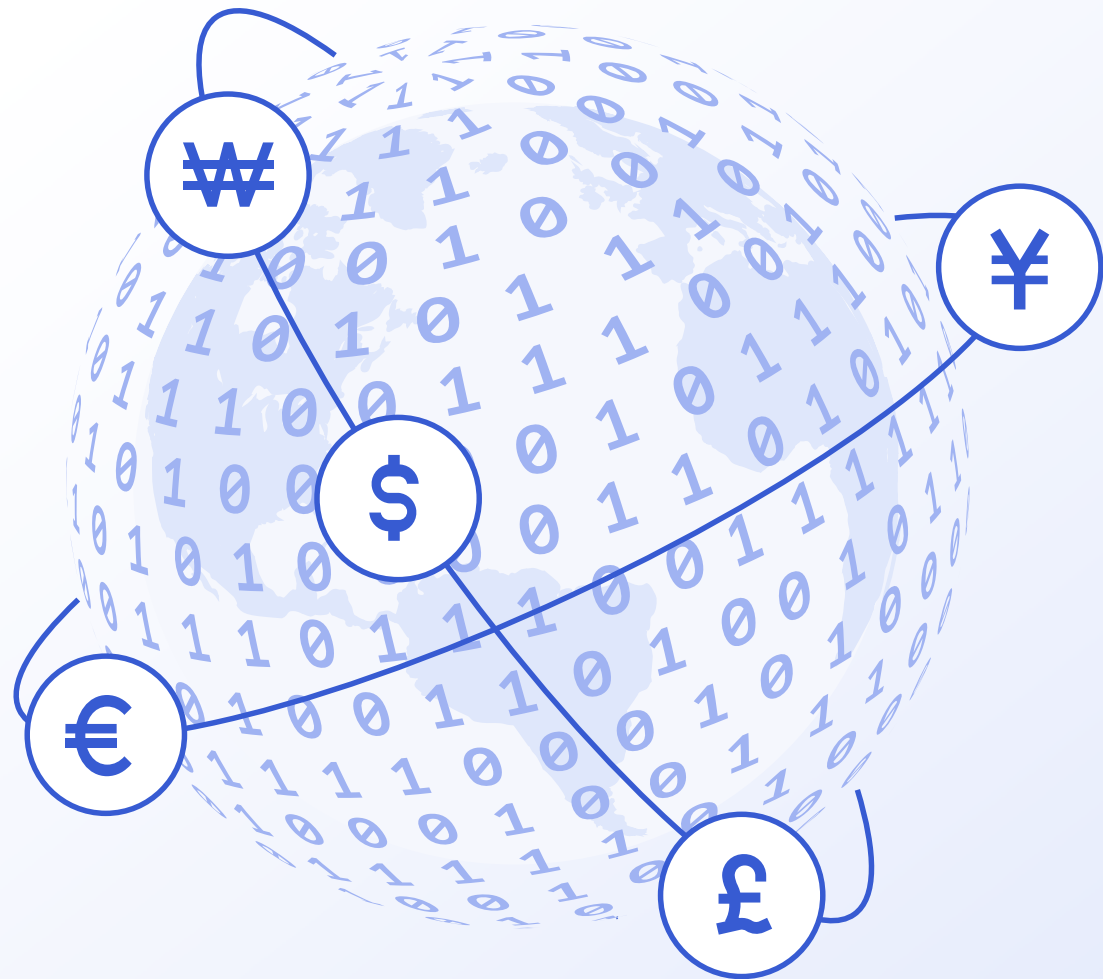
Decentralized
Finance



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Global Financial
Markets



DeFi Trend: The Solution — and Huge Opportunity — to the Robinhood Fiasco



Global Markets will Interoperate Through DeFi Protocols

Decentralized Finance

Derivatives



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Capital
Markets



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Carbon Credits



Global
Insurance



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Access to Off-chain Resources Enables More Contracts

Highly Validated Data

Price and Market Data



Insurance and Climate Data





Chainlink Network

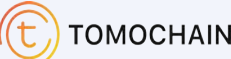


DeFi Contracts + CeFi



Insurance Contracts

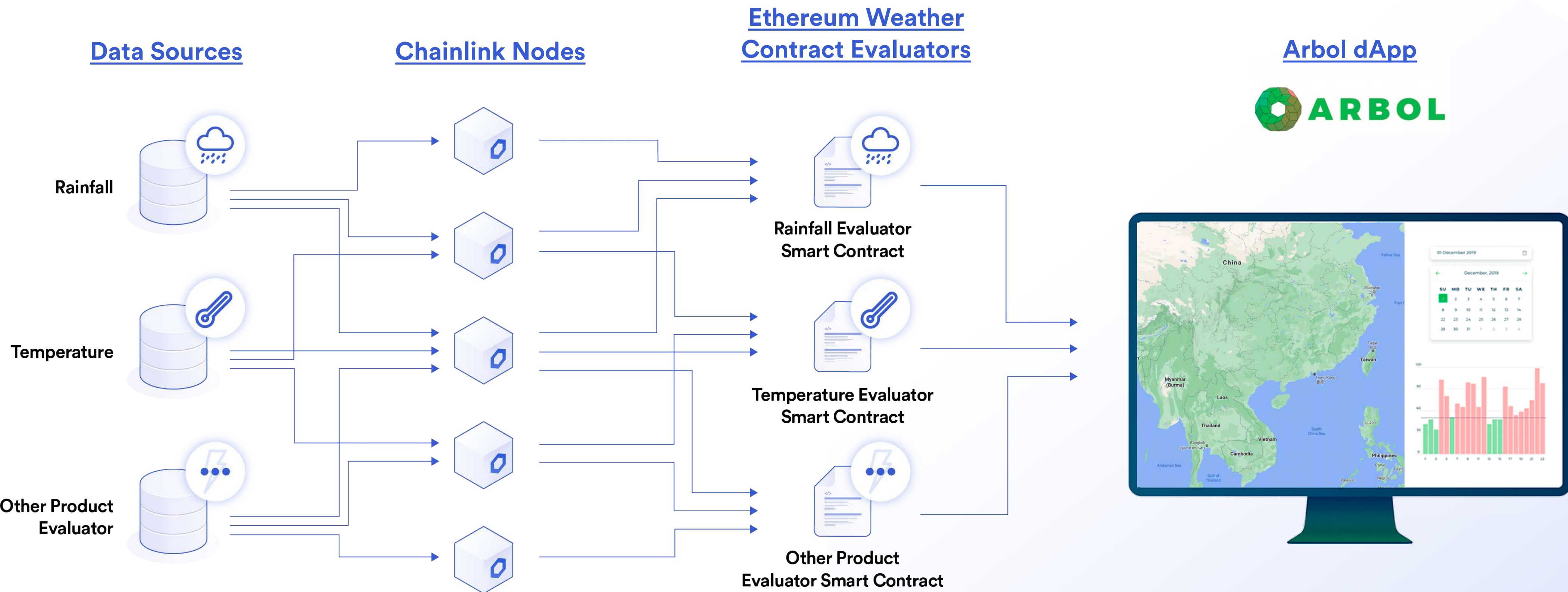




Global Finance Industry

Global Insurance Industry

Weather Data Creates Smart Contract Crop Insurance

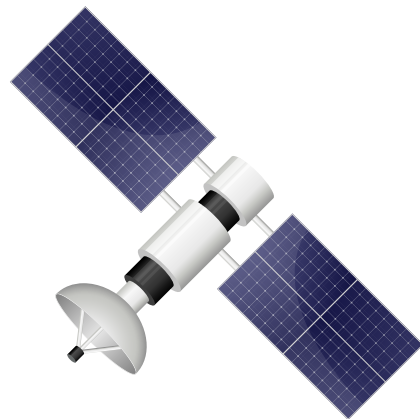


Reforestation and Automated Carbon Tax Credit Systems

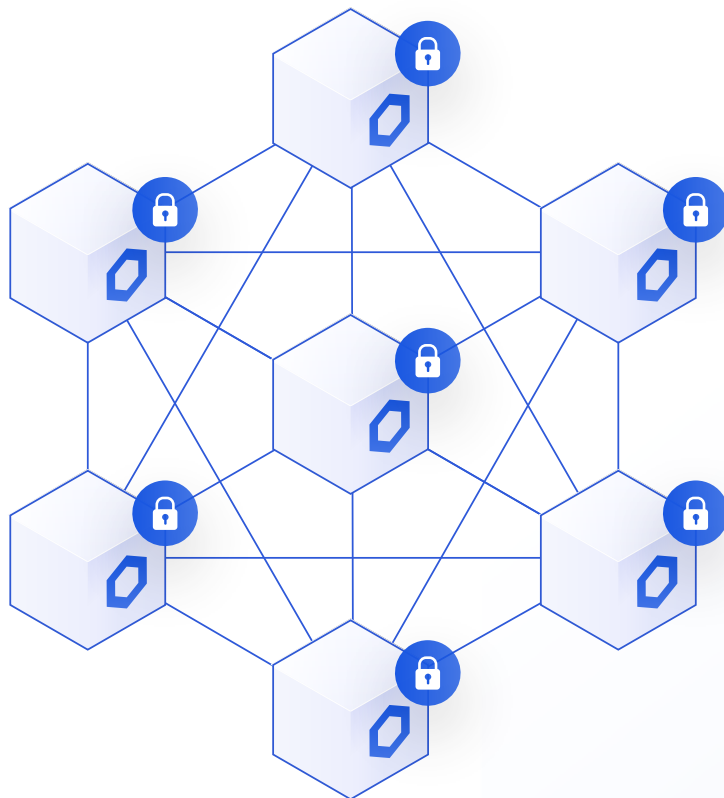
Reforestation
Initiatives



Satellite Imagery
& Other Data



Chainlink
Network



Reforestation Hybrid
Smart Contract



Reforestation and Carbon
Sequestration Initiatives



A Global Market for Carbon Sequestration and Reforestation

Decentralized Finance

Derivatives



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Carbon Credits

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Global Insurance

Capital Markets



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Highly Validated Data

Price and Market Data

CoinGecko

CoinMarketCap

BNC.

KAICO

amBerdato.io

CRYPTO COMPARE

ALPHA VANTAGE

BINANCE

Insurance and Climate Data

Proof of Reserve Audits

Chainlink Network

DeFi Contracts + CeFi

SY/SX

easyfi

opium.exchange

Digitix

Bancor

AVVE

b2x

HAVEN

orchid

gelato

WOM

GAMERASH

Set Protocol

Ampleforth

LinkPool

tornado

BULLIONIX

PLASMA

Insurance Contracts

ARBOL

ETHERISC

Nexus Mutual

Wrapped Assets

WBTC

PAXOS

T

Ren

Polkadot.

Matic

BINANCE SMART CHAIN

HYPERLEDGER

Kava

COSMOS

Hdac

CYPHERIUM

CONFLUX

elrond

Hedera Hashgraph

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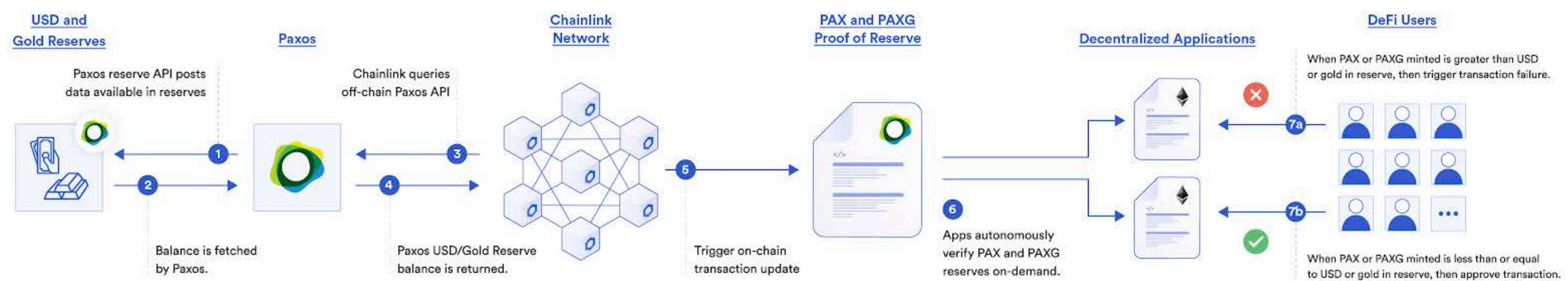
INT

Global Finance Industry

Global Insurance Industry

Global Asset Management

Proof of Reserve Creates Automated and Reliable Audits



Existing Audits Can Benefit from Hybrid Smart Contracts

FINANCIAL TIMES

**EY fraud expert: ‘incomprehensible’
that Wirecard ‘red flags’ were
ignored**

“[...] had dismissed ‘red flags’ pointing to accounting manipulations at the disgraced payments group.”



<https://www.ft.com/content/0288d7b1-1e52-4a3d-a9e1-6850afae0d26>

Access to Off-chain Resources Enables More Contracts

Highly Validated Data

Price and Market Data

Insurance and Climate Data

Proof of Reserve Audits

On-chain Data Marketplace

Off-Chain Computation

Verifiable Randomness

Keepers / Maintenance Bots

Expanded Computation

Chainlink Network

DeFi Contracts + CeFi

Insurance Contracts

Wrapped Assets

New Smart Contracts

Gaming Contracts

DeFi Contracts

DeFi Contracts

Global Finance Industry

Global Insurance Industry

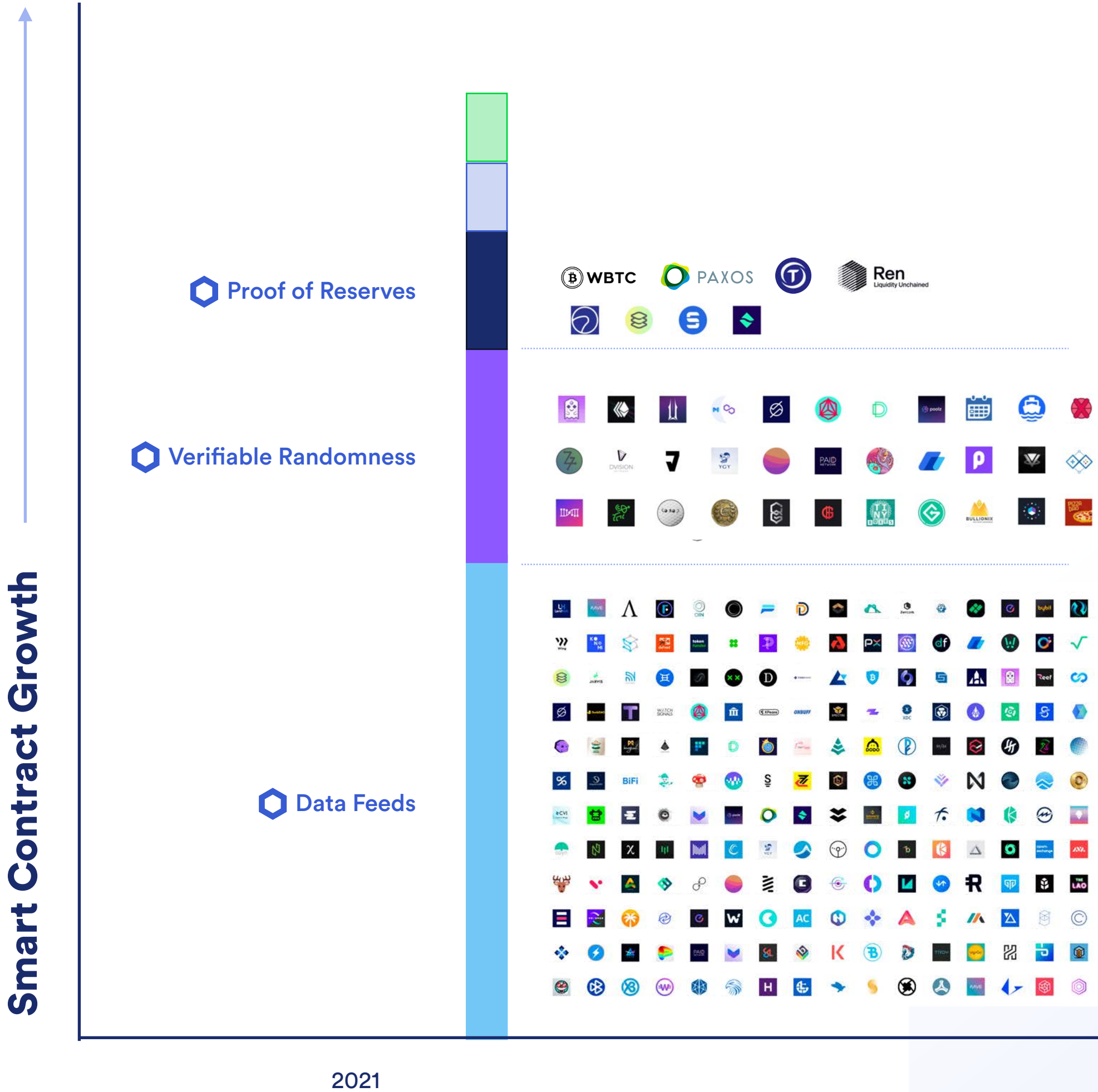
Global Asset Management

Thousands of Additional Use Cases

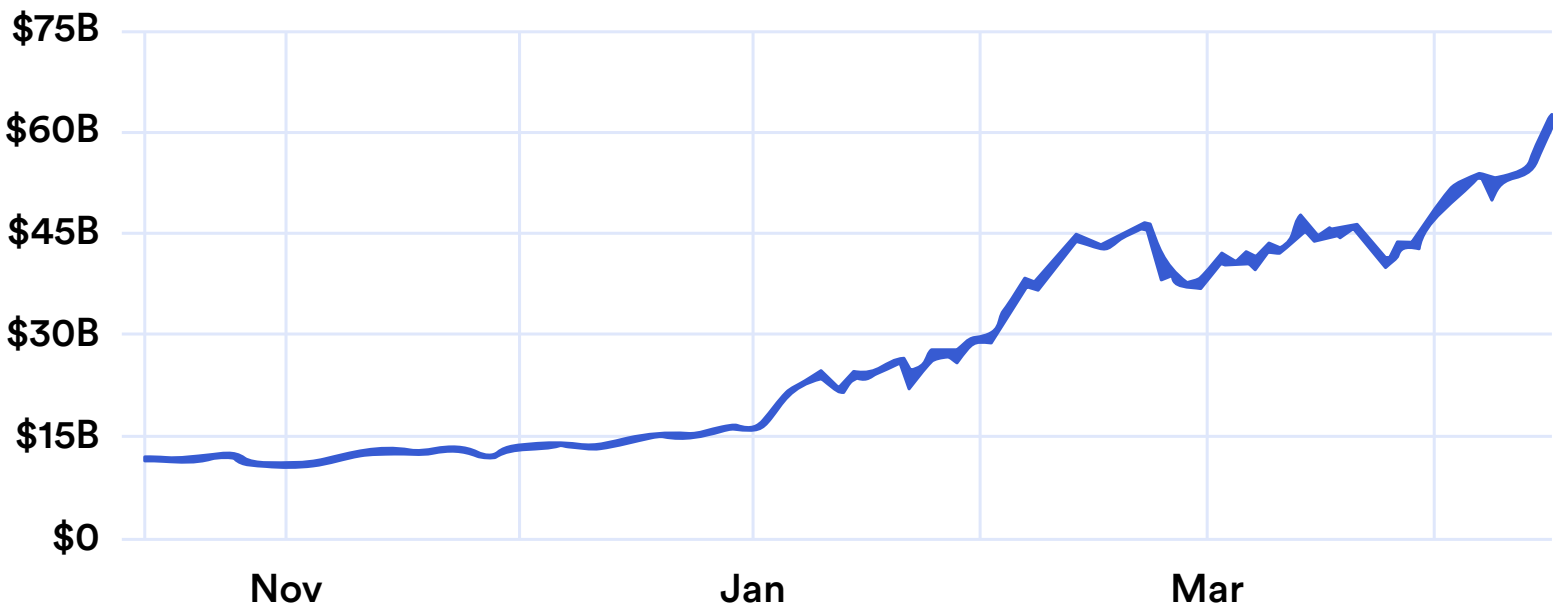
Global Demand for Off-Chain Computation

More Hybrid Smart Contracts Need More DON Services

- Off-chain Computation
- Keepers
- Proof of Reserves
- Verifiable Randomness
- Data Feeds

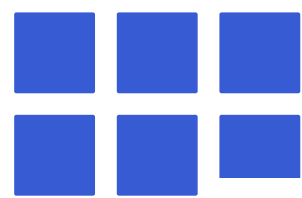


Total Value Locked (USD) in DeFi



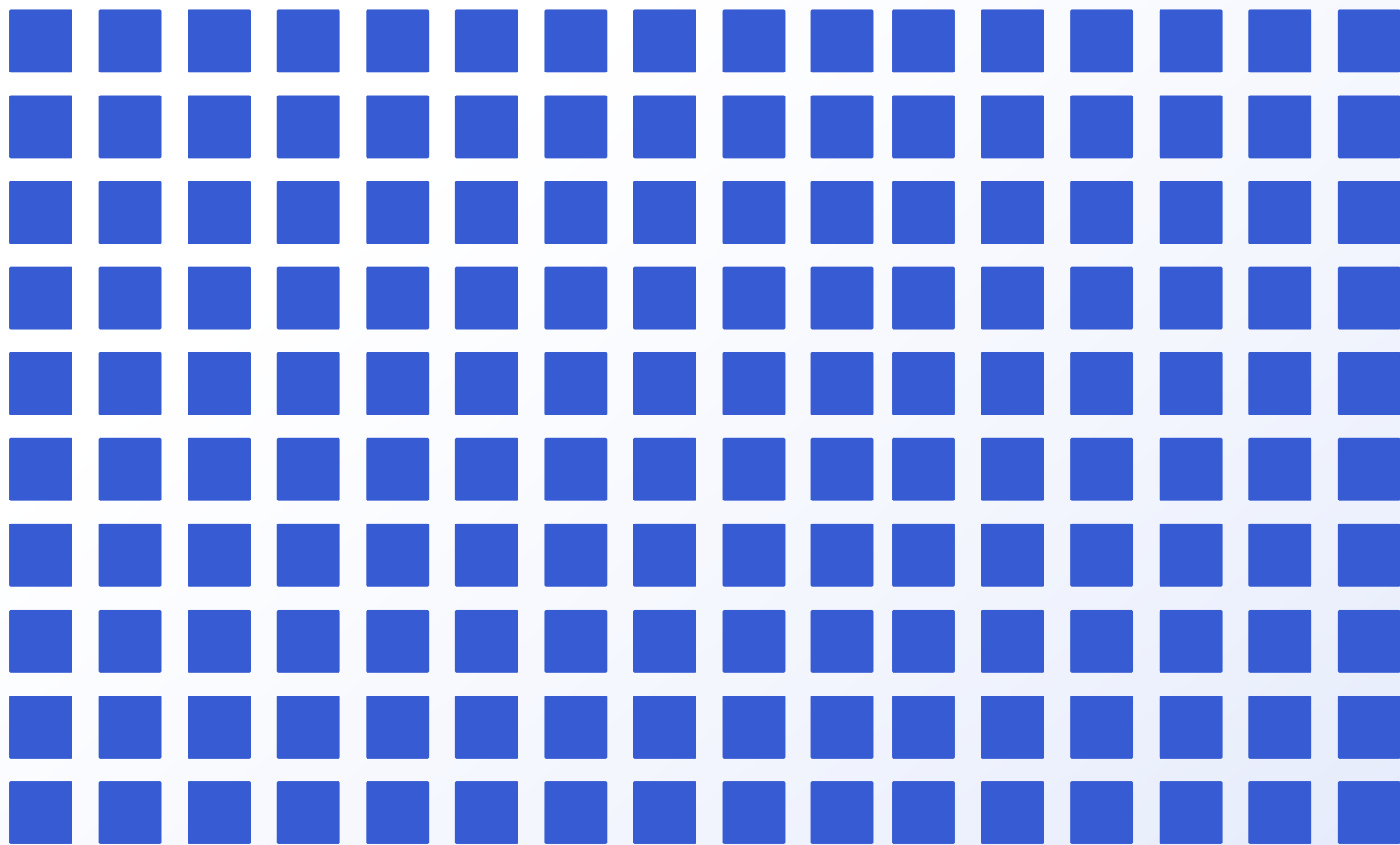
DeFi is Still Only ~3.6% of All Value in Cryptocurrency

DeFi



\$58 billion

Cryptocurrency

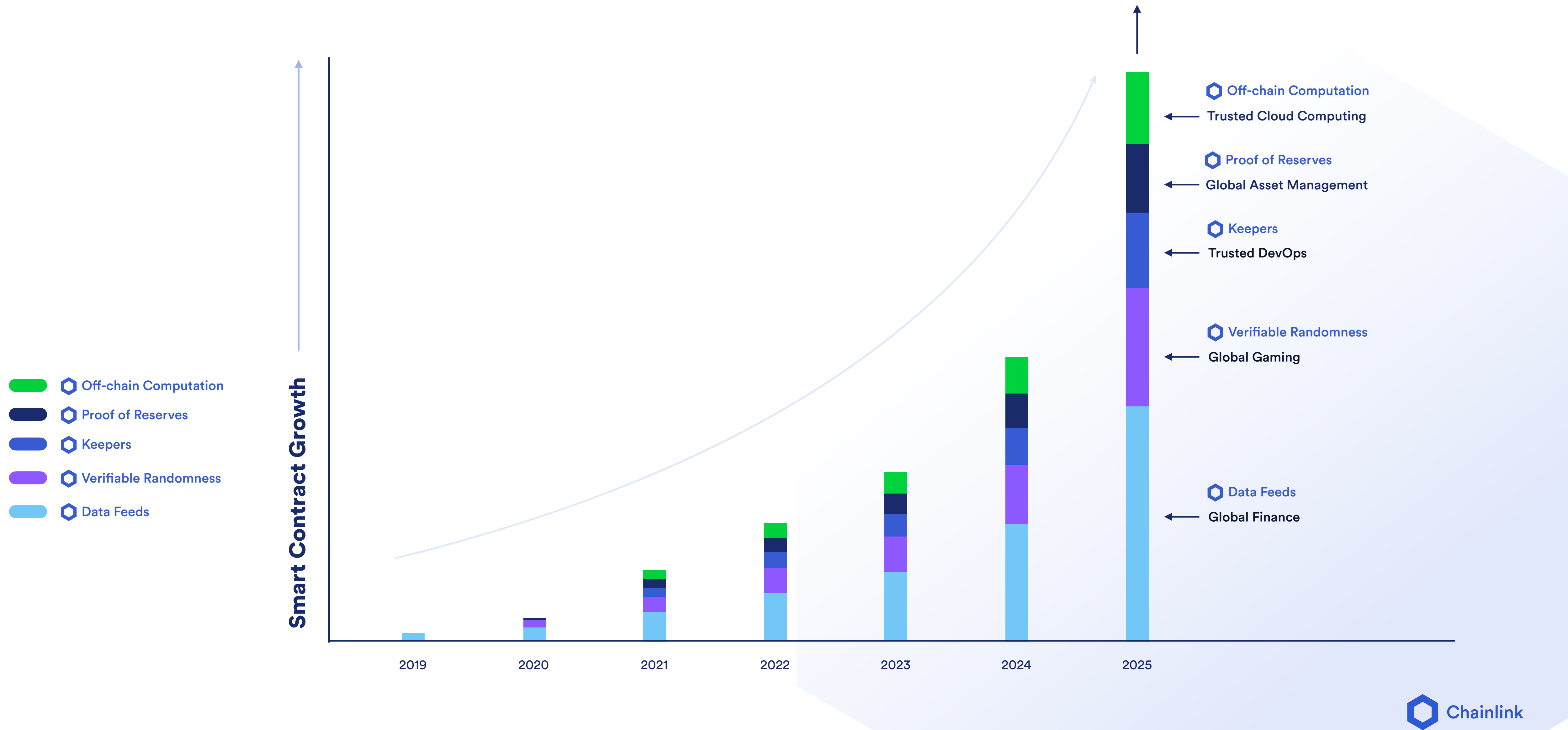


\$1.6 trillion

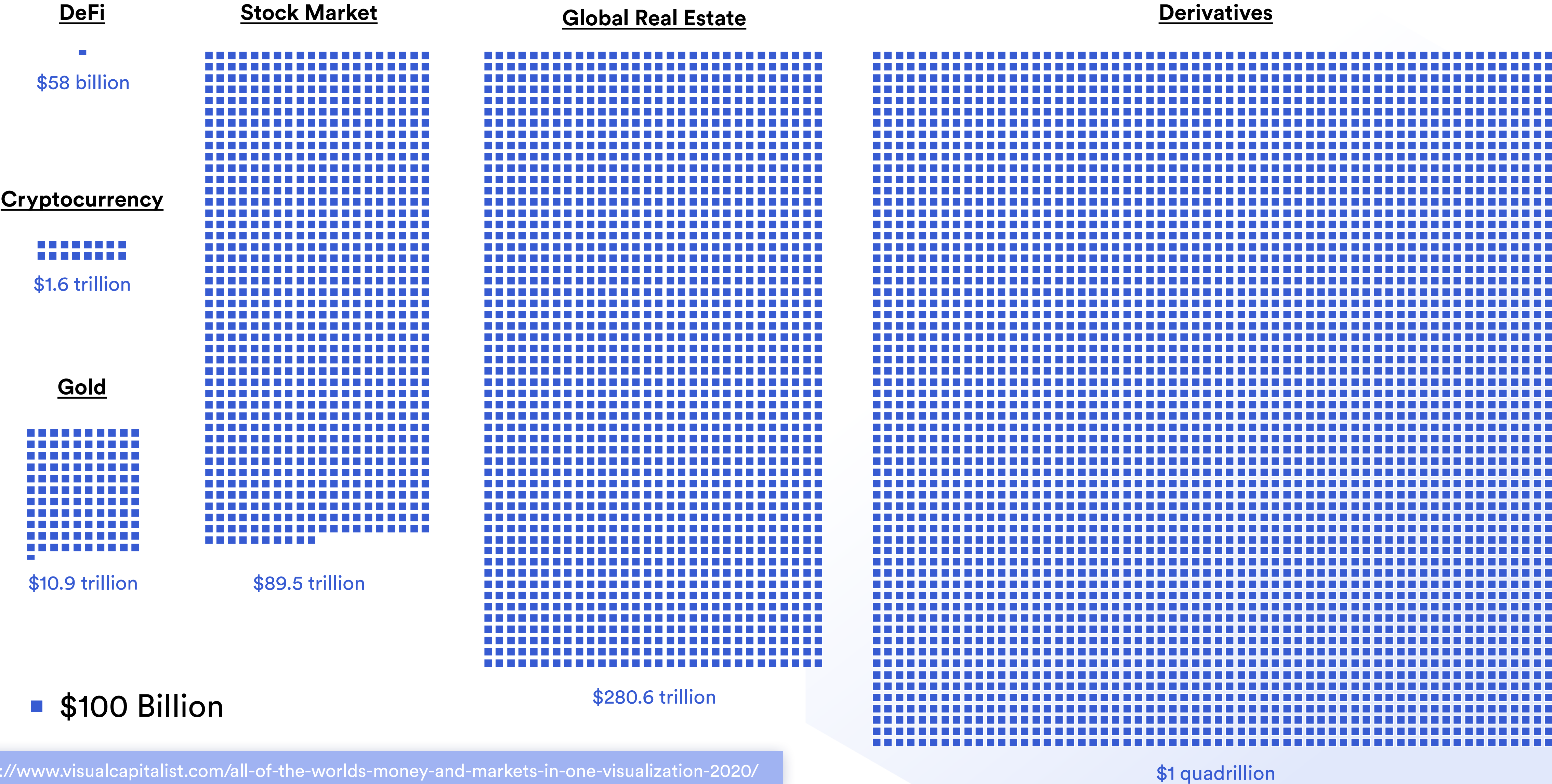


■ \$10 Billion

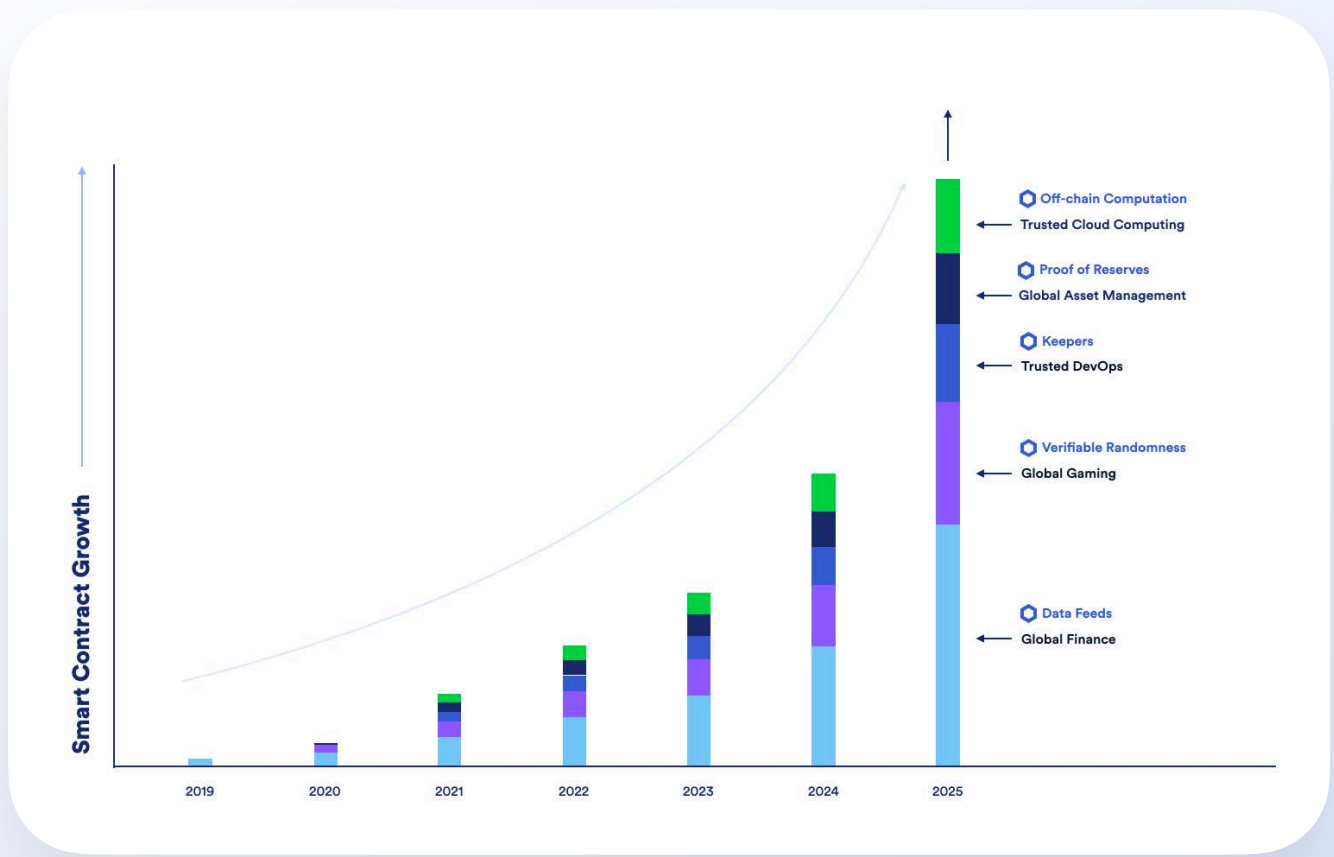
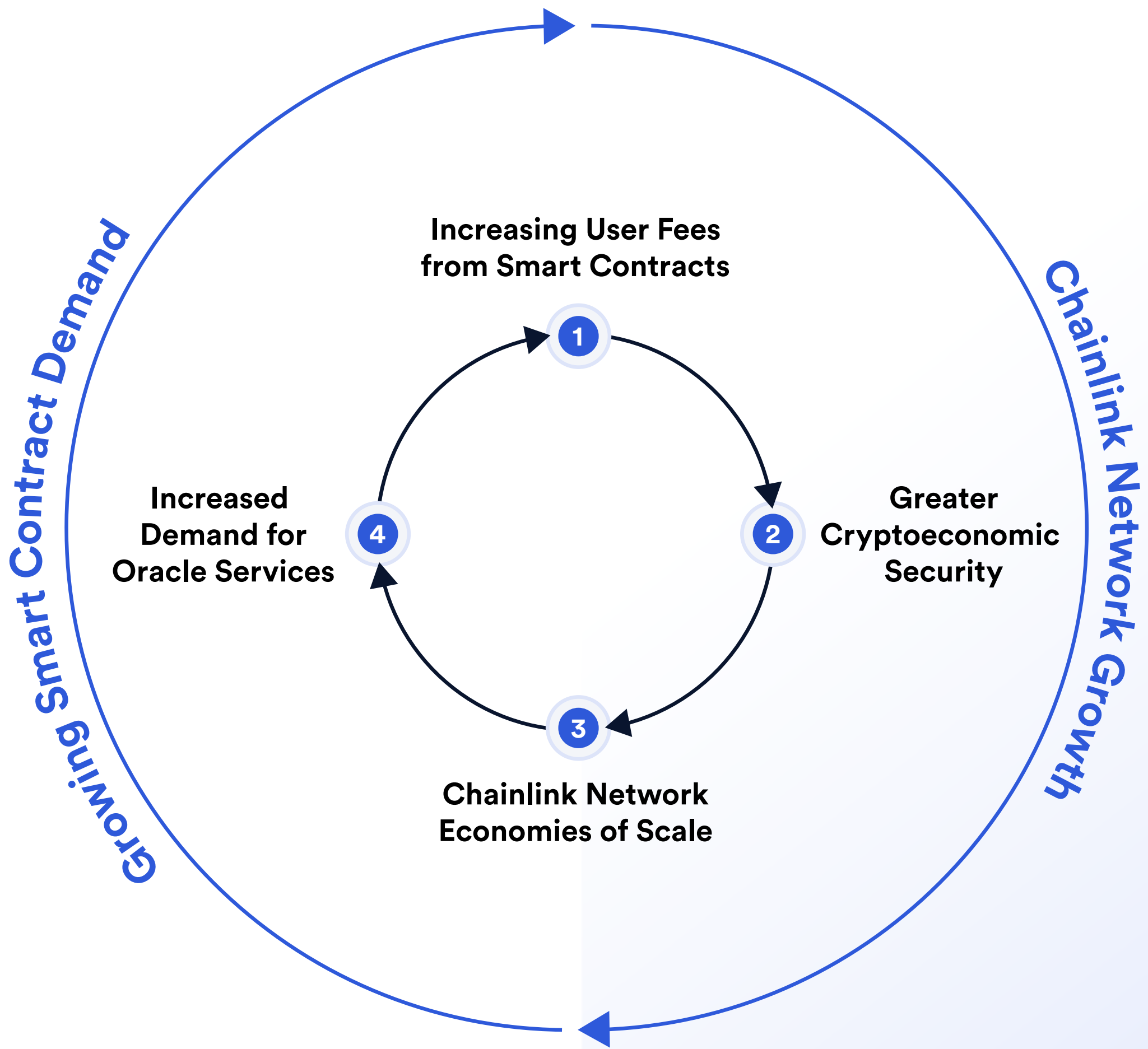
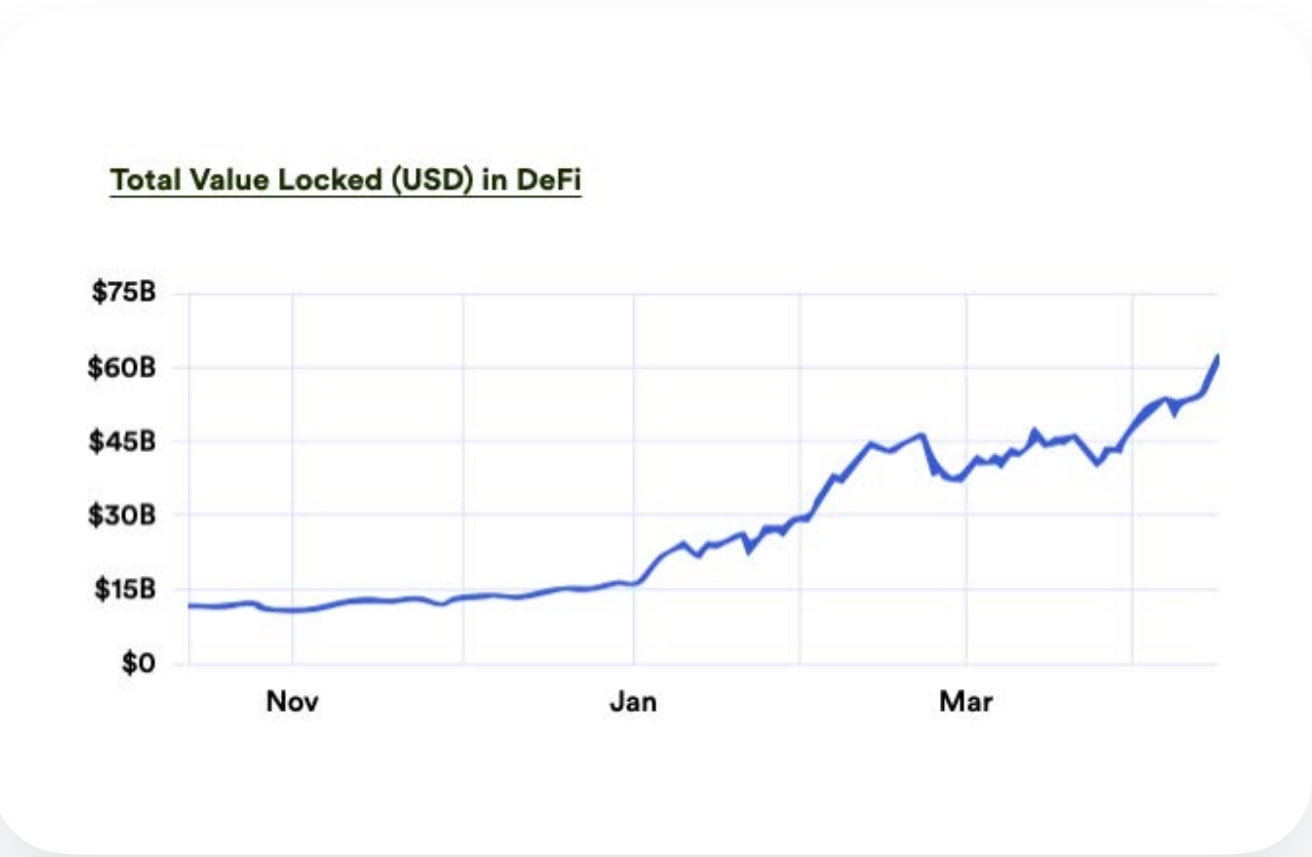
More Hybrid Smart Contracts Need More DON Services



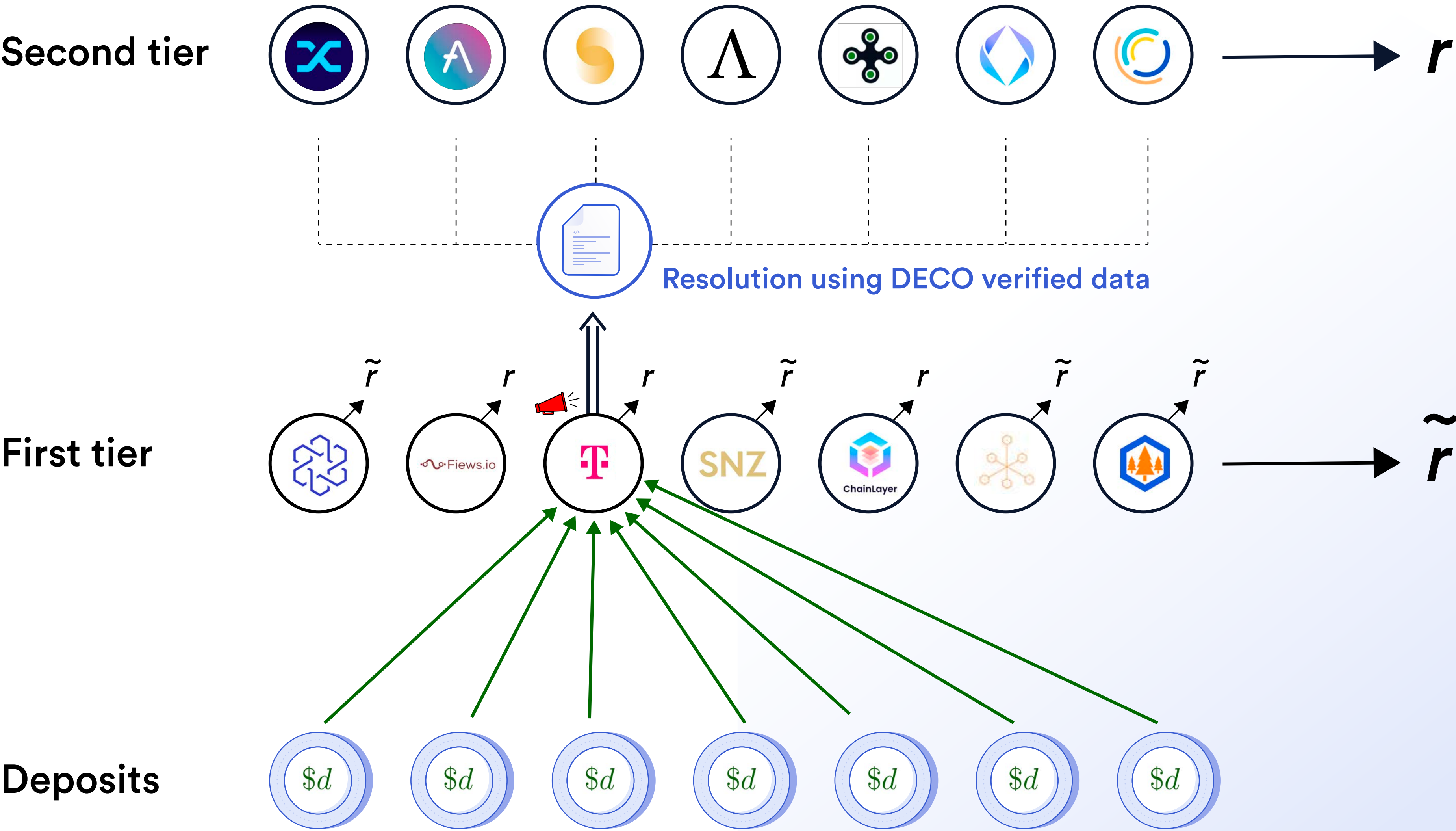
The Remaining Market For Smart Contracts is Trillions



Greater Cryptoeconomic Security from More Network Users



A Large Ecosystem of Alerters and Second Tier Adjudicators



Second tier







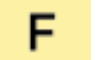




+ hundreds more

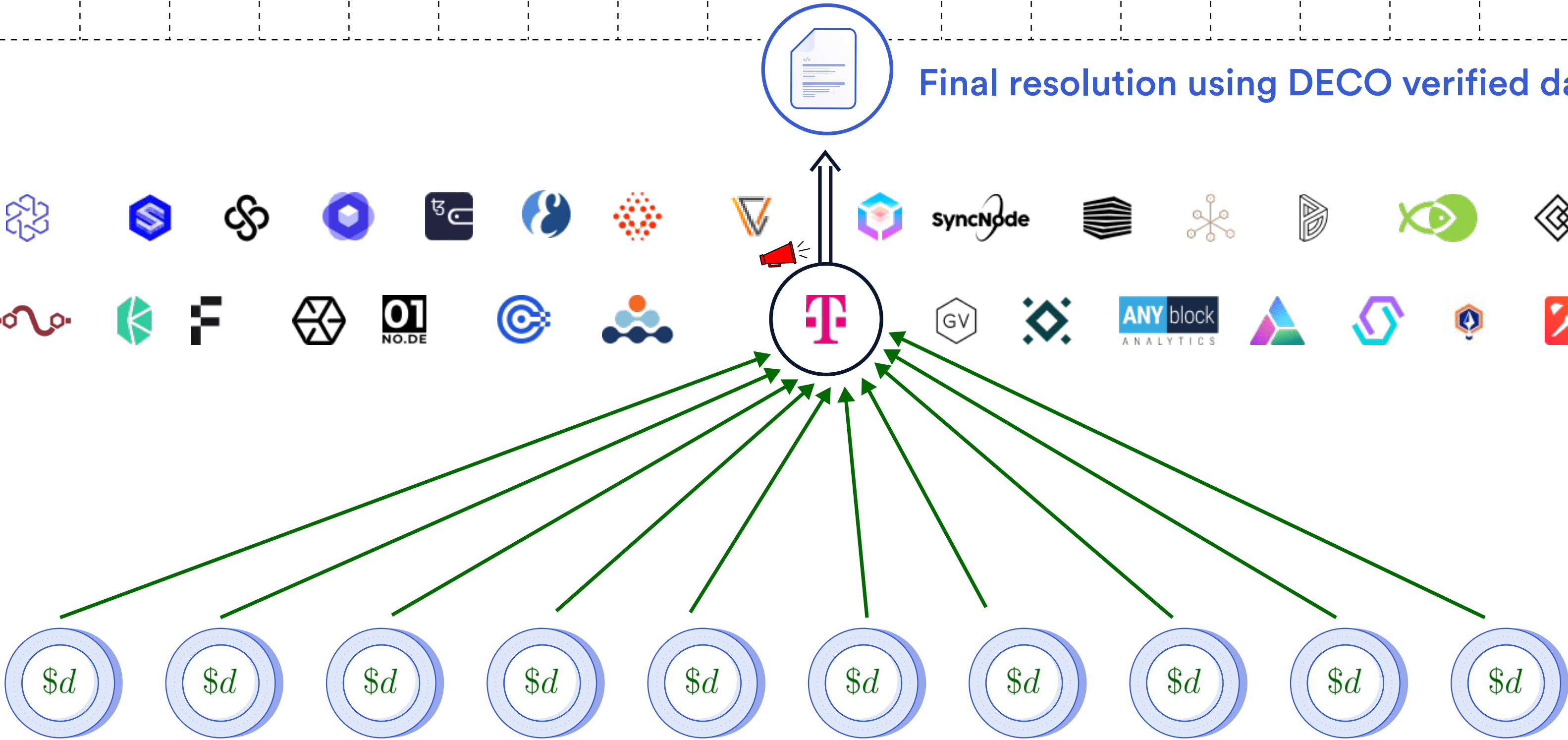
First tier



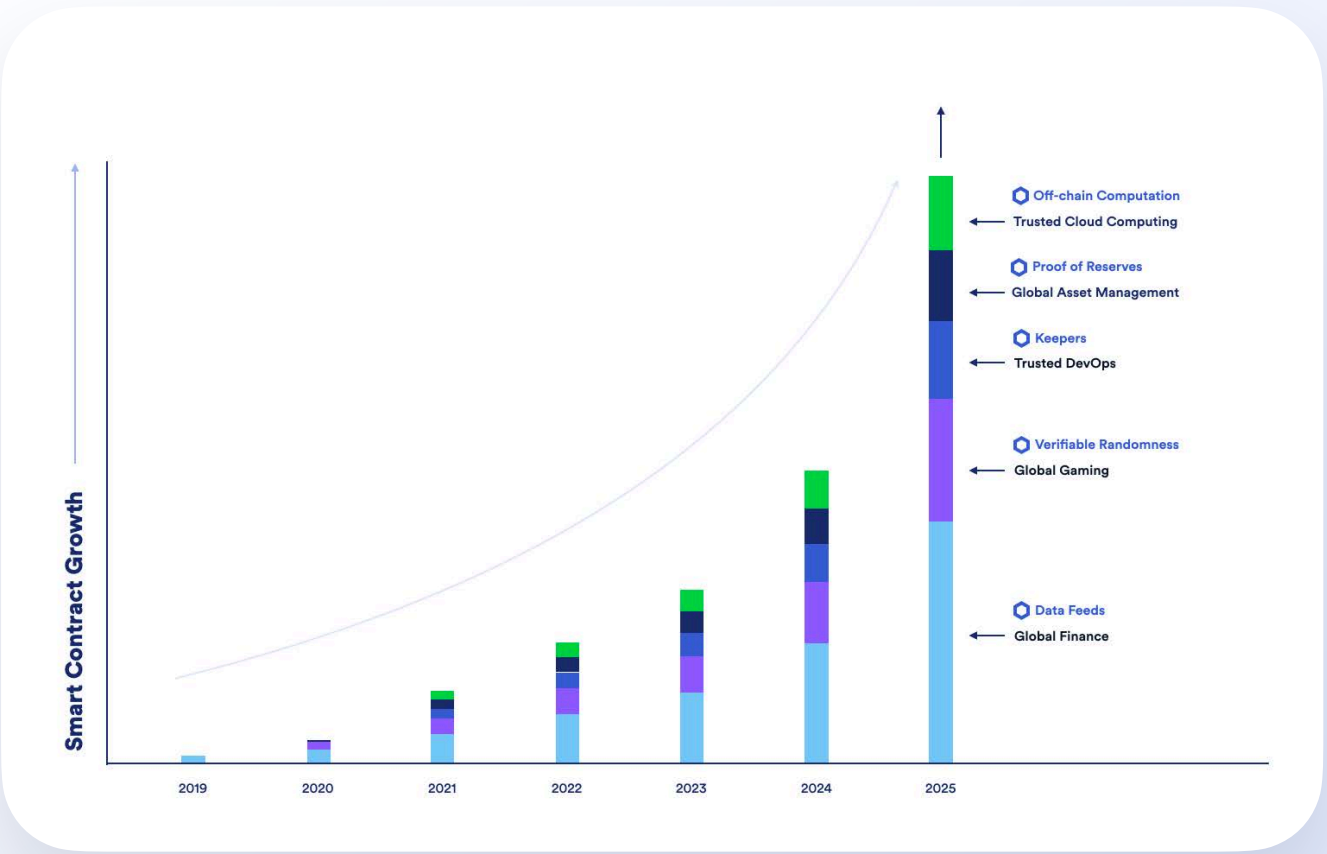
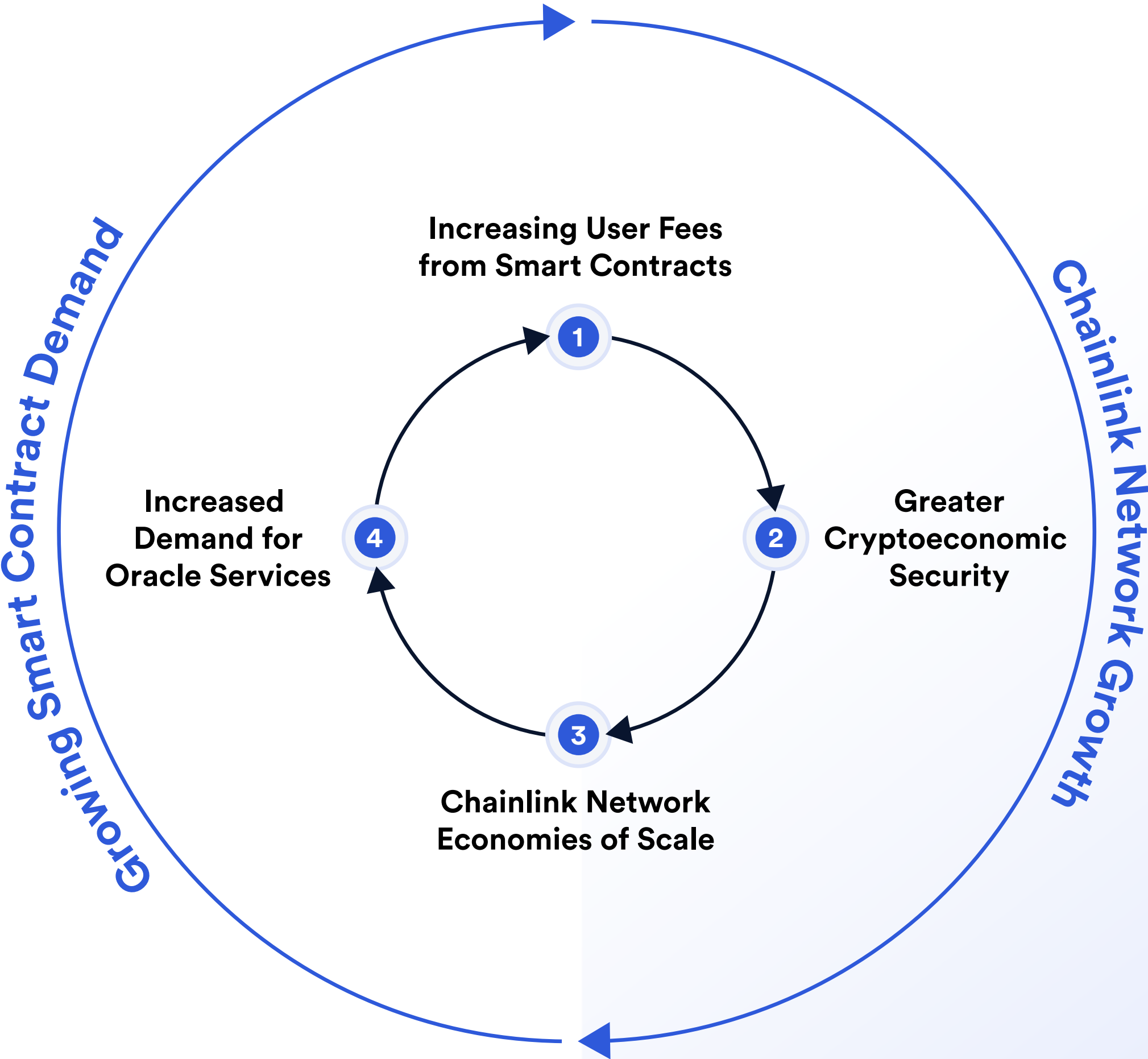
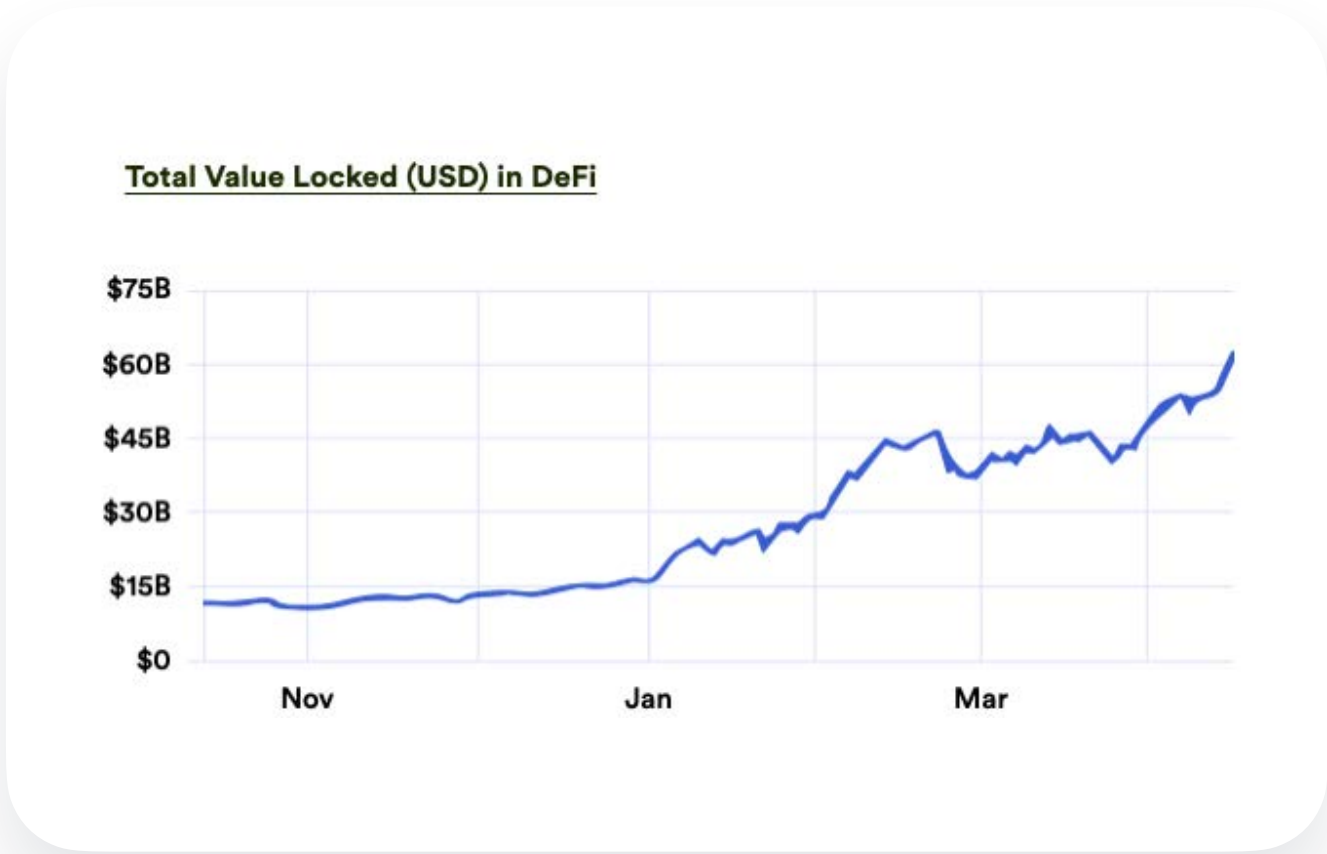


+ hundreds more

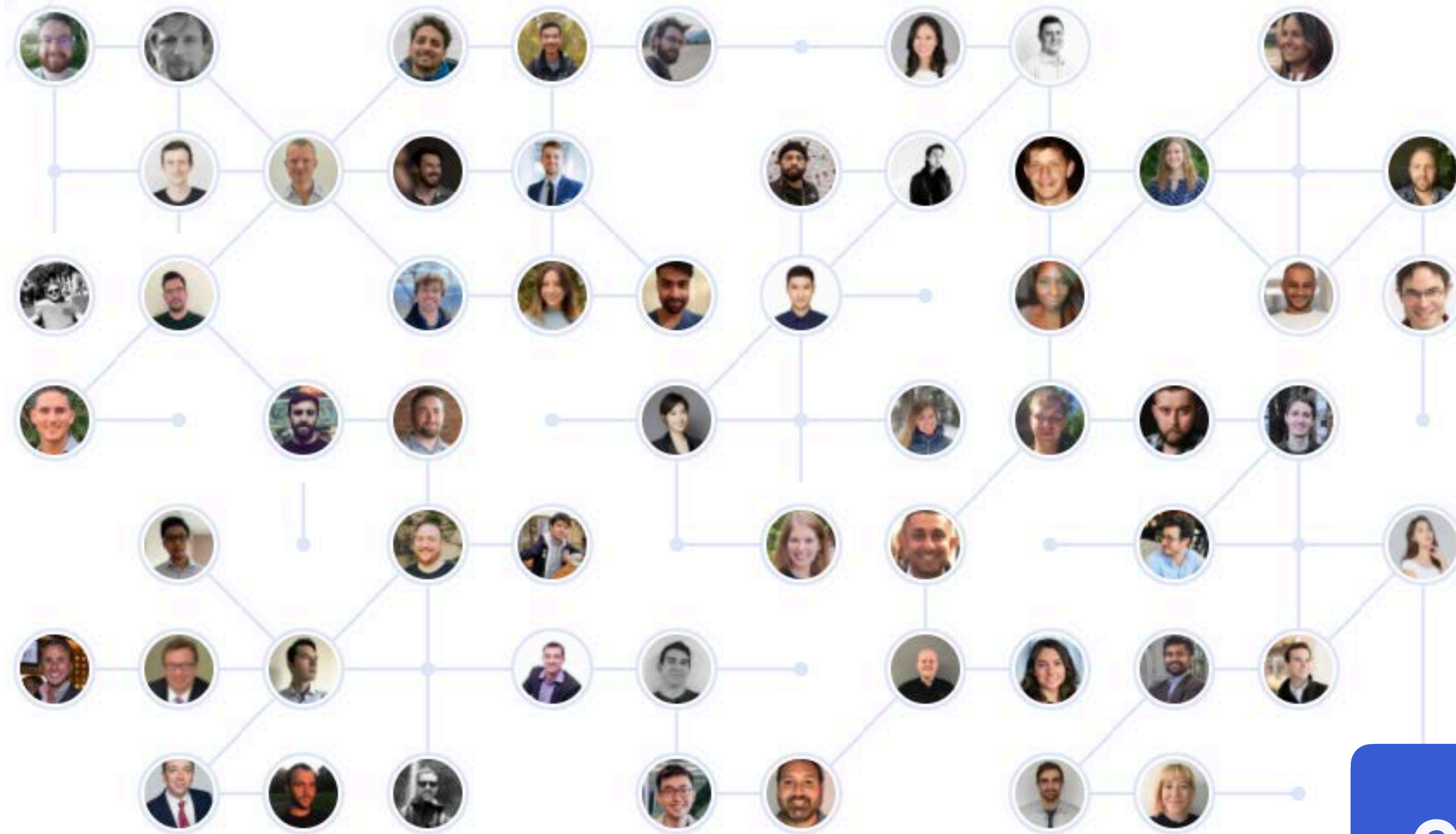
Deposits



Cryptoeconomic Security Driven By Large Network Effects



Help Build the Future of Hybrid Smart Contracts



Build great open source software that enables the next generation of DeFi and many other smart contract types.



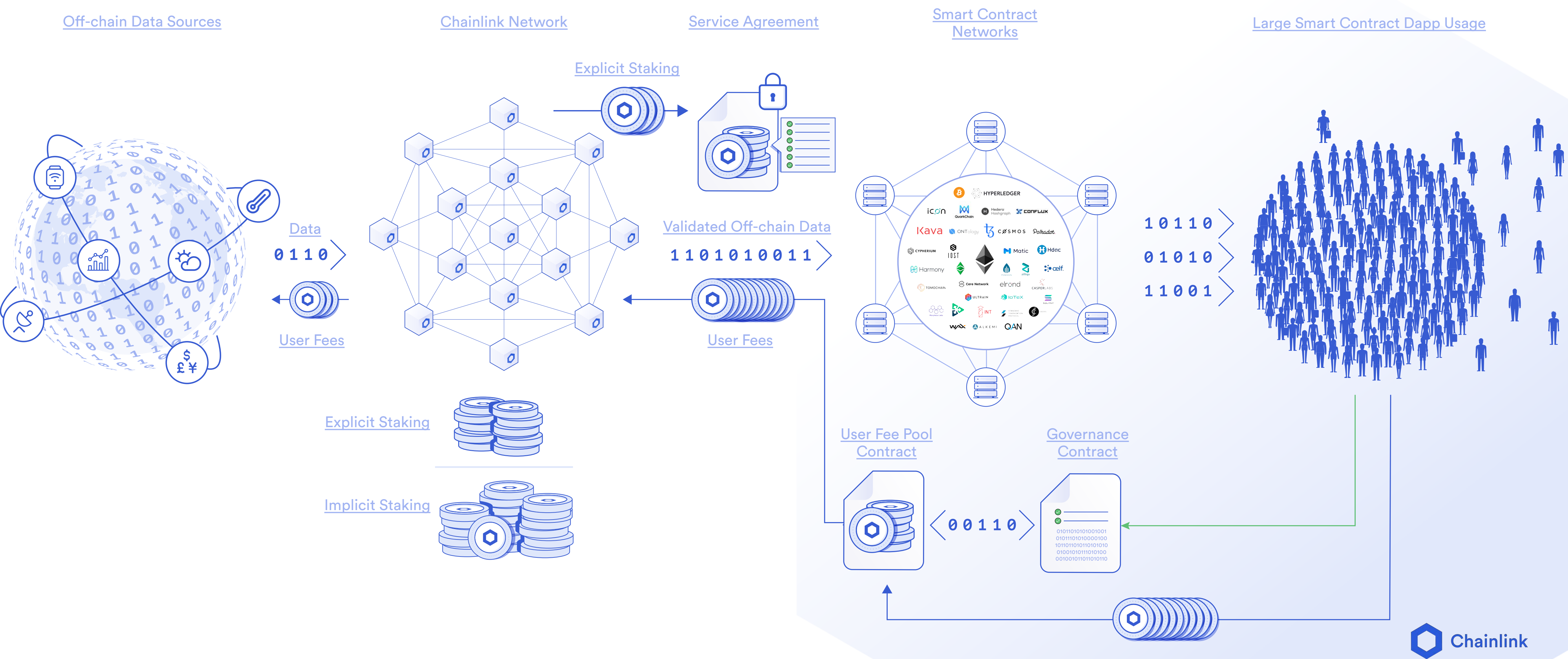
We're an idea meritocracy where the best ideas win.



We're a remote team working with great people all over the world.

chainlinklabs.com/careers

Fees and Staking Grow With Smart Contract Usage



Thank You

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