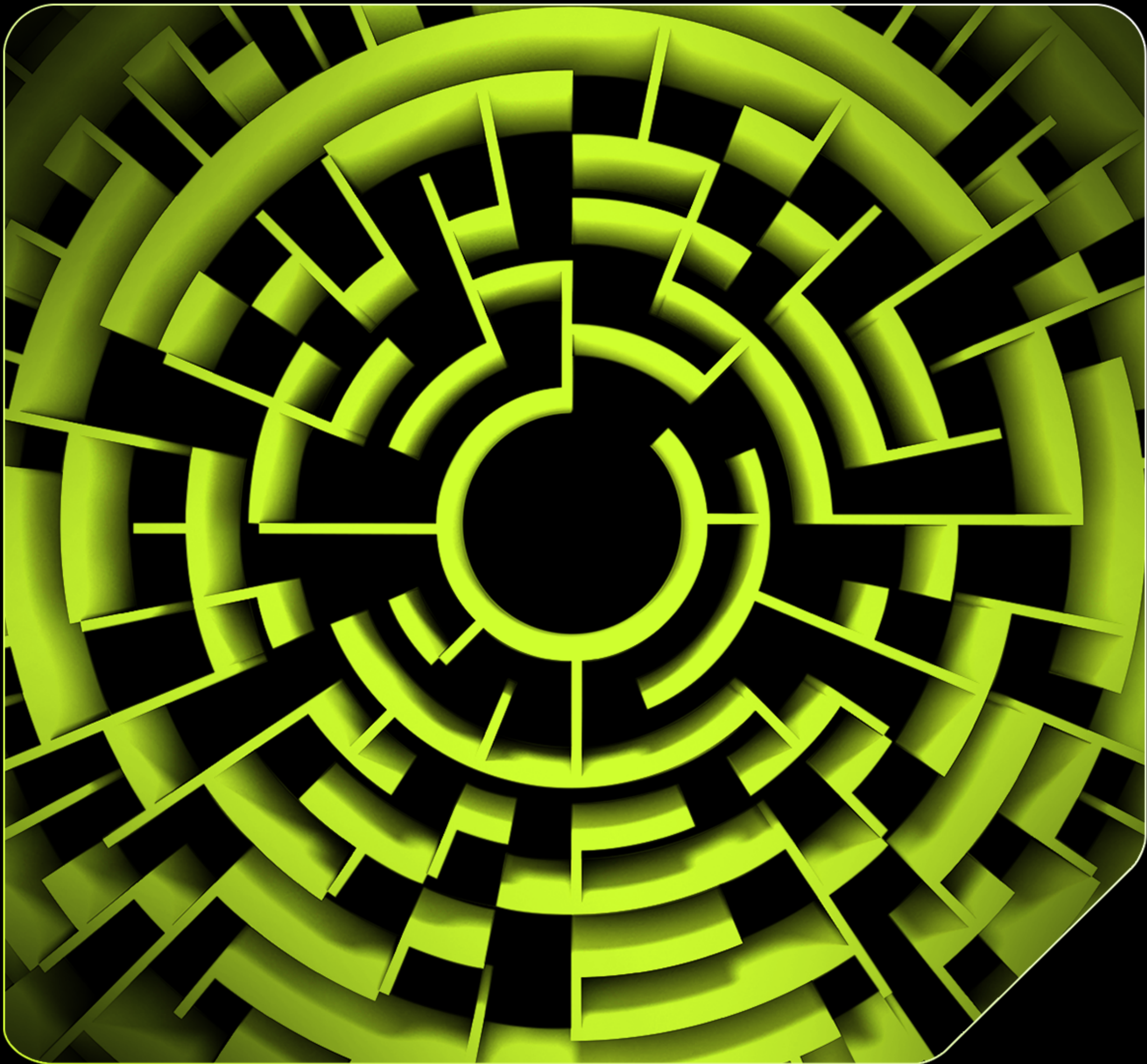
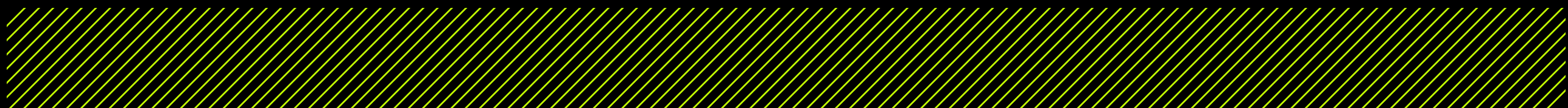




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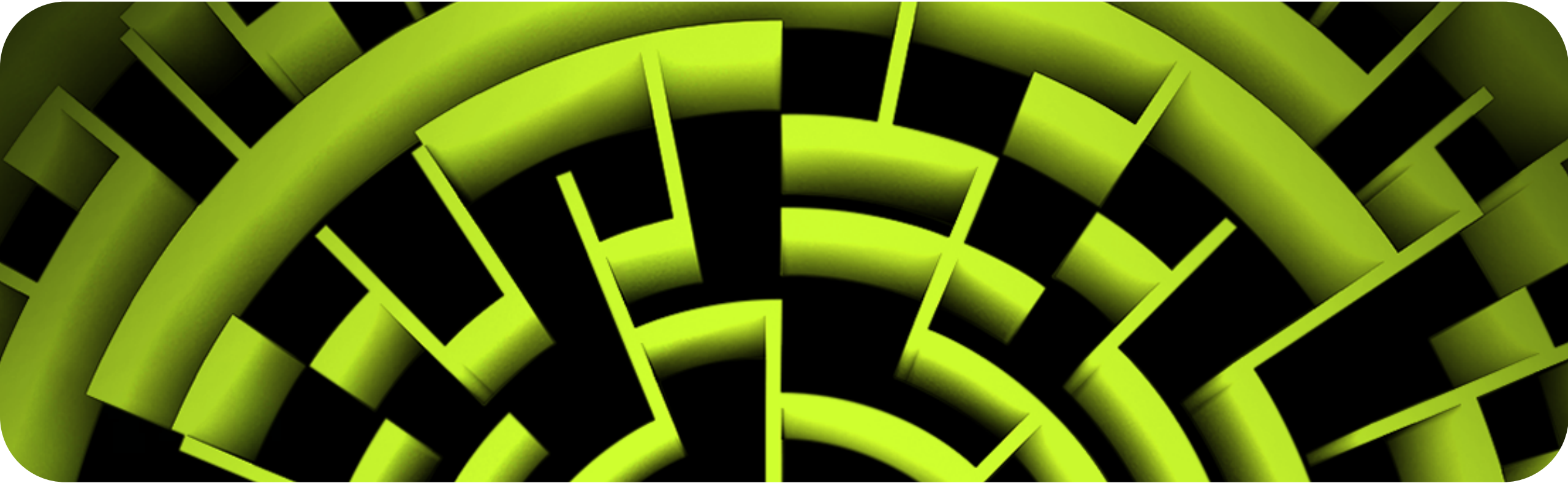
Solving the DeFi Yield Maze: The Rise of Gen 3 Optimizers



Solving the DeFi Yield Maze:

The Rise of Gen 3 Optimizers

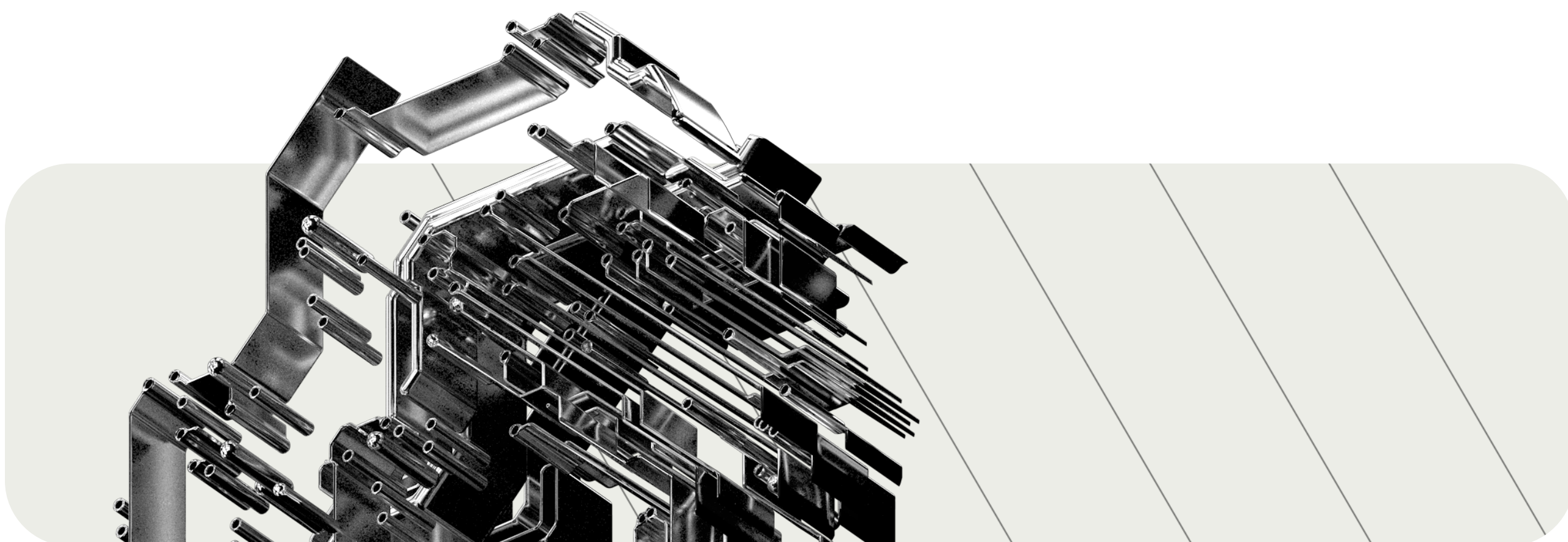
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Key Takeaways

This DL Research report, in collaboration with YO, examines the evolution of yield optimizers from Gen 1 to today's rising Gen 3 architecture. Below are some key takeaways from the report:

- **DeFi yield is still complex and inefficient.** Users face high friction from bridging, unstable returns, and opaque strategies, while institutions cite operational complexity and lack of risk clarity as barriers to participation.
- **Early yield aggregators set the foundation.** Gen 1 vaults introduced a single strategy on a single chain, Gen 2 allocators broadened the strategy but remained in a single chain, and DeCeFi models unlocked more advanced strategies but reintroduced trust in curators and off-chain execution.
- **A new Gen 3 architecture is emerging.** Gen 3 protocols are built on five core pillars—security, transparent risk, crosschain allocation, simple UX, and algorithmic optimization—setting the foundation for sustainable, scalable yield.
- **YO demonstrates Gen 3 in practice.** With \$80M TVL across yoETH, yoUSD, yoBTC, and yoEUR, YO delivers diversified, risk-adjusted yield through ERC-4626 vault tokens, automated crosschain rebalancing, and full onchain transparency.
- **YO is gaining traction as financial infrastructure.** Vaults have produced stable, competitive returns, and yoTokens are already integrated across major DeFi protocols and wallets, positioning YO as both a yield optimiser and a composable building block for the next phase of DeFi.

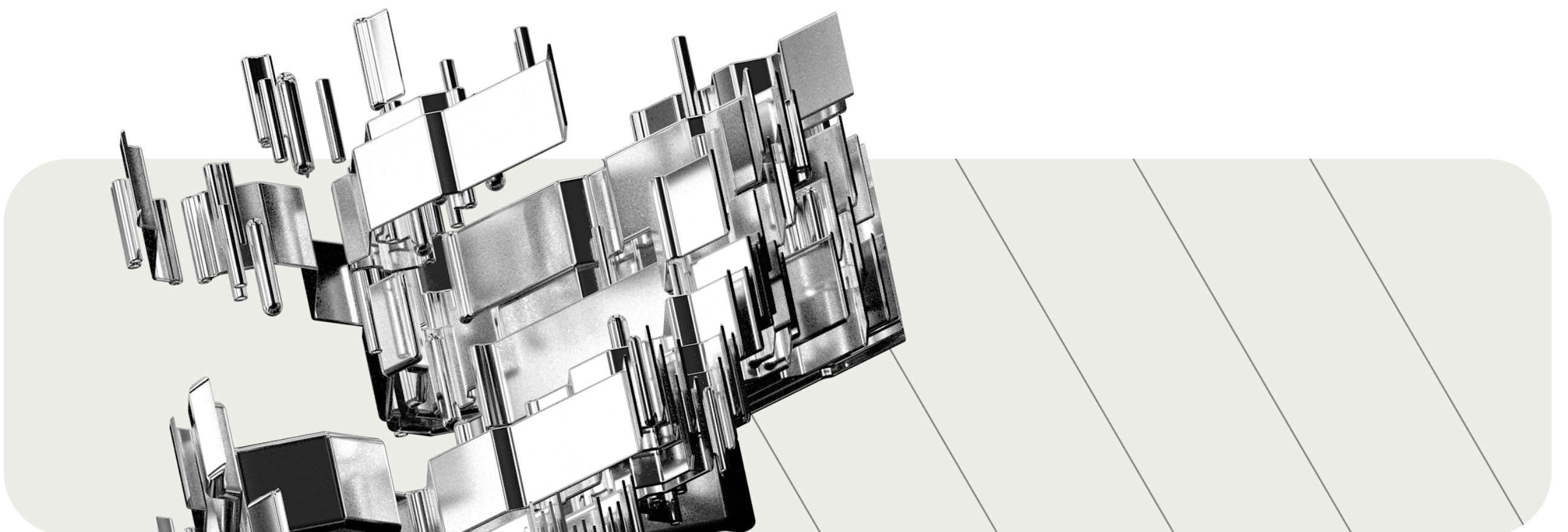


Introduction

The concept of “yield farming” became popular during the summer of 2020. During this period, which was widely regarded as a turning point for Decentralized Finance (DeFi), the ecosystem experienced a spike in popularity as users flocked to protocols for a variety of financial services without the need for middlemen. For the first time, users could earn triple-digit yields simply by depositing assets into decentralized apps, fueled by token incentives and airdrops that rewarded early adopters. This rush of activity triggered a boom in lending, borrowing, trading, and liquidity provision, with returns that far outpaced anything in traditional finance.

But five years later, the picture looks different. DeFi has endured several boom-and-bust cycles in step with the broader crypto market, yet it has never regained the heights of the 2021 bull run, when total value locked (TVL) in protocols topped \$175 billion. Meanwhile, the overall crypto market cap has grown over 40% since its 2021 peak to over \$4 trillion in 2025 yet DeFi TVL has remained stagnant at around \$160 billion. The crypto sector as a whole gained over \$1 trillion in incremental value, yet almost none of that flowed into DeFi.

So what went wrong? Many DeFi yields proved unsustainable, driven by short-lived incentives or demand for leverage. Users were forced to constantly chase “the next best thing” to maintain returns. Worse, many high-yield opportunities came with hidden risks like opaque strategies, weak economic designs, and a string of high-profile exploits that drained user funds. Together, these factors eroded trust and left many with a lasting sense of disillusionment toward DeFi..



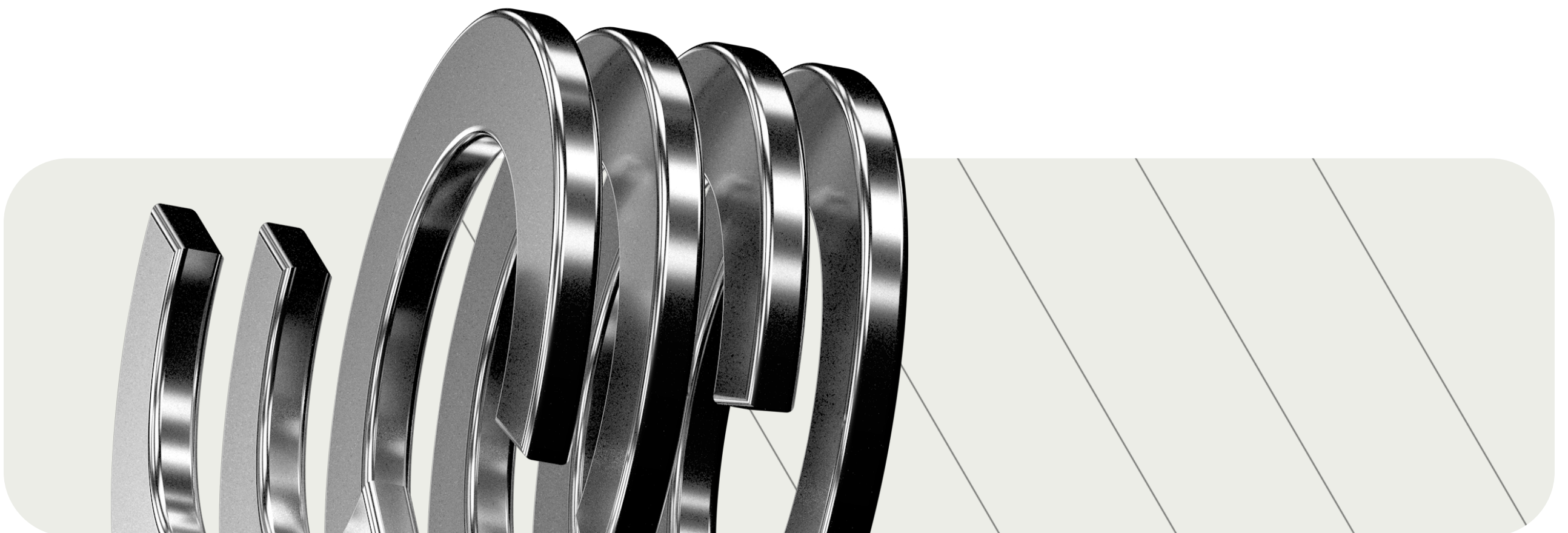
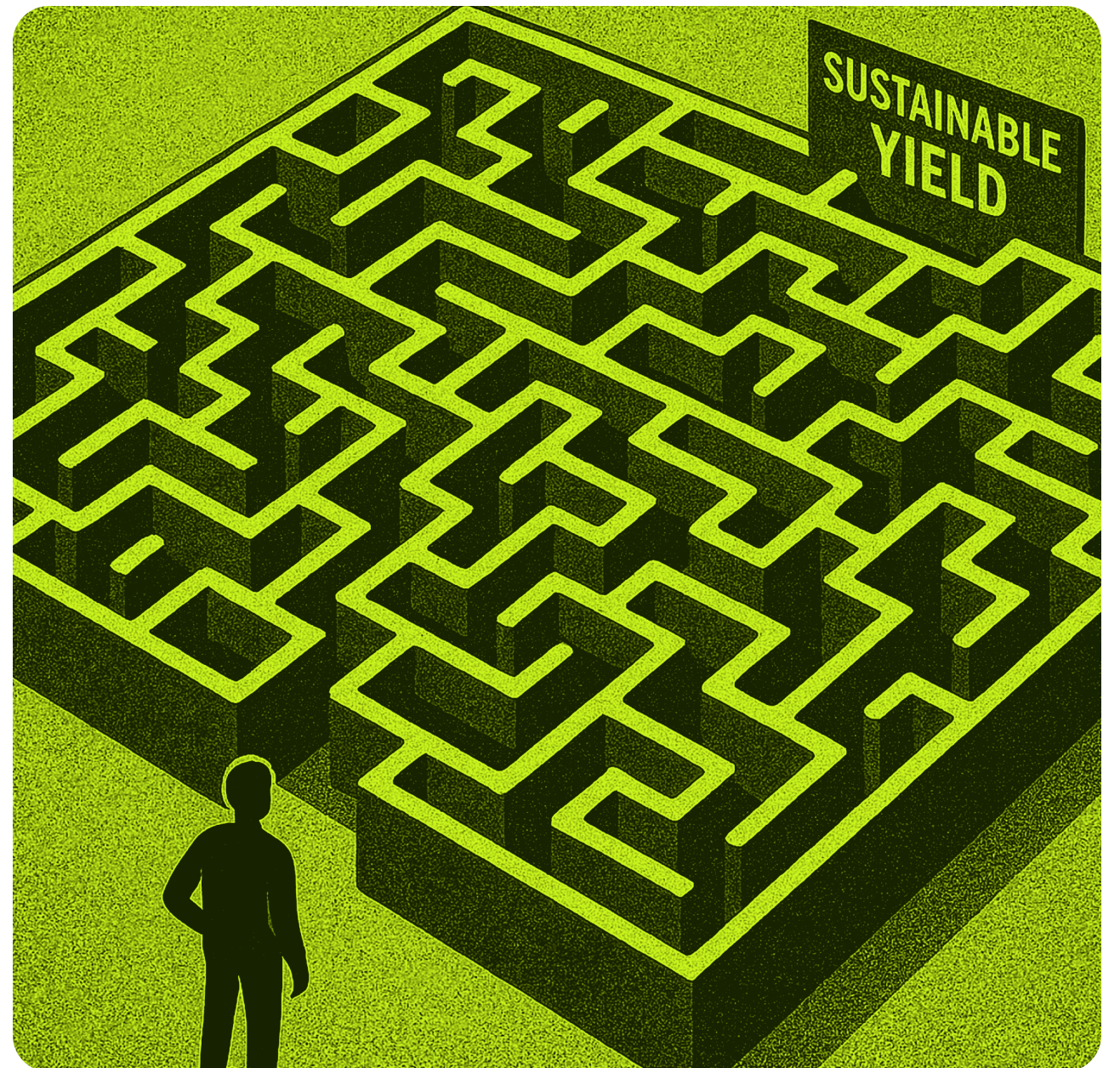
The UX Problem

The DeFi Yield Maze

The search for yield has long shaped how money is invested. Whether in traditional savings accounts or through professional asset managers, investors are guided by the promise of returns.

In traditional finance, earning yield is simple: deposit into a savings account or hand funds to a manager, and returns accrue automatically. In DeFi, the process is far more complex. Capturing yield means choosing between lending, liquidity provision, staking, or other strategies, often across multiple chains, each with its own risks and costs.

A study published in March 2025 (Augusto et al., XChainDataGen) highlighted this problem. Moving assets from Ethereum to Base carried median fees between \$2.56 and \$12.87, while transfers from Avalanche to Base cost between \$0.18 and \$1.80, depending on the bridge. On their own, these charges may seem small, but repeated over time, they steadily eat into the yields users expect to capture.



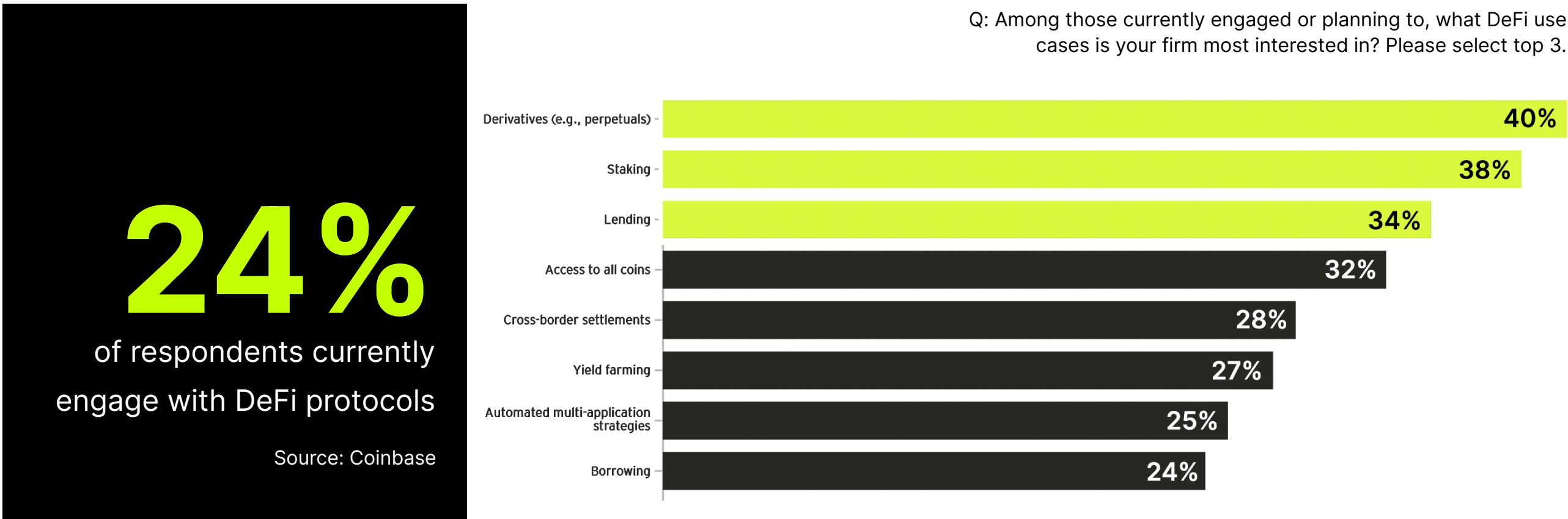
COSTS TO BRIDGE ASSETS

L1 → L2	CCTP		CCIP		STARGATE (TAXI)		STARGATE (BUS)		ACROSS	
	E → B	A → B	E → B	A → B	E → B	A → B	E → B	A → B	E → B	A → B
Num CCTXs	23882	14238	461	126	13487	4421	16461	3313	279910	
Value Trsf (\$)	837.29M	203.42M	8.51M	10.35M	163.79M	4.29M	80.02M	1.48M	531.03M	
LATENCY (\$)										
Q1	936.00	22.00	964.00	61.25	210.00	52.00	436.00	247.00	16.00	
Q2	1,064.00	63.00	1,060.00	77.00	212.00	54.00	458.00	253.00	18.00	
Q3	1,204.00	103.00	1,160.00	93.00	224.00	57.00	508.00	367.00	28.00	
IQR	268.00	81.00	196.00	31.75	14.00	5.00	72.00	120.00	12.00	
COST (\$)										
Q1	1.51	0.13	9.32	1.80	5.68	0.18	1.25	0.16	2.04	
Q2	3.51	0.23	12.87	2.11	11.04	0.26	2.56	0.25	3.47	
Q3	7.73	0.39	18.71	2.29	19.64	0.48	4.88	0.41	5.80	
IQR	6.22	0.26	9.39	0.49	13.96	0.30	3.63	0.25	3.76	
Quartiles of the distribution of latencies and costs of cctx from Ethereum (E) to Base (B), and Avalanche (A) to Base (B), between June 1, 2024 and Jan 1, 2025										

Source: Augusto et al., XChainDataGen

When costs, complexity, and lack of transparency stack together, they do more than frustrate retail users. They also limit broader participation in DeFi. An EY–Coinbase survey of more than 350 institutional investors found that while 83% plan to increase allocations to digital assets in 2025, only 24% currently participate in DeFi. Derivatives, staking, and lending were cited as the most common entry points, while yield farming ranked much lower, with only 27% expressing interest.

INSTITUTIONS INTEREST IN SURVEY



If more than 70% of institutional investors are unable to engage with DeFi today, it is clear that something needs to change. The demand is there, but without reducing complexity and barriers, most investors will remain on the sidelines.

Gen 1: The First Wave of Yield Optimisers

Yield optimisers were introduced as the first real solution to the DeFi yield maze. Instead of manually chasing opportunities across protocols and chains, users could deposit once into platforms like Yearn Finance, Beefy, or BadgerDAO and let automated strategies do the work. In 2021, they seemed to achieve a clear product-market fit, with TVL climbing from \$1.8 billion in January to \$12 billion by November.

That momentum, however, did not last. Today, yield optimisers hold under \$5 billion in TVL, while DeFi overall retains around \$150 billion compared to a \$175 billion peak. The sharper relative decline suggests that something specific to optimisers, rather than market cycles alone, held them back.

YIELD OPTIMISERS TOTAL VALUE LOCKED



Source: DefiLlama

One reason was a series of high-profile security failures. In October 2020, Harvest Finance lost \$33.8 million to a flash loan exploit. In December 2021, Grim Finance was drained of \$30 million through a reentrancy attack. That same month, BadgerDAO suffered one of the largest incidents in the sector when a compromised API key was used to steal \$120 million.

Xu and Feng (2022) note that these attacks often stemmed from weaknesses in vault design, composability, or access controls. What was meant to simplify yield instead introduced new points of failure, leaving many users hesitant to commit further capital.

OVERVIEW OF ATTACKS IN AGGREGATORS

ATTACKS	YIELD AGGREGATOR ATTACKED	SUMMARY	SOLUTIONS	EST. LOST	TIME	MAJOR CHAIN
Flash loan attack	ApeRocket	Using the fact that the AutoCake vault was only deployed 10 hours and was low in TVL, attacker conducted price manipulation and drained the vault.	Project team updated the protocol and at least two audits will be conducted before its V2 launch.	1.26M USD	07/14/2021	BNB
	Pancake Bunny	Within the timeframe to create a new block, attacker transferred USDT into the contract and called removal of liquidity. Cause the value of Bunny token to crash by more than 93%.	A implementation of the Floating Rate of Emissions and the security code changes.	3M USD	05/20/2021	BNB
	Harvest Finance	Attacker swapped USDC to USDT to up the price of USDT, depositing USDT into vault and swap back USDT to USDC to gain profit as USDT price fall. This action is repeated to drain the vault.	Team updated the following: deposit and withdraw funds within a single transaction is not allowed to avoid flash loan, and withdraw of tokens are made into multiple transactions to minimize damage.	33.8M USD	26/10/2020	ETH
Rug pull	Arbix Finance	The project team drained the vault with users assets, deleted their website, twitter and telegram.	Certik sent out a community alert.	10M USD	01/04/2022	BNB
Reentrancy attack	ForceDAO	The xFORCE platform used a fork of xSUSHI contract which revert the token if transaction fails, they also used Aragon Minime token that return false if a transferFrom() call fails.	Team could have used a standard Open Zeppelin ERC-20 or added a safe transferFrom wrapper in xSUSHI contract.	367K USD	04/03/2021	BNB
	Grim finance	Attacker exploited a depositFor() function that had not been protected. Users deposited funds in to vaults that attacker inserted their own contract containing the reentrancy deposit loops.	The team updated the code and send in for an audit.	30M USD	19/12/2021	Fantom
	DAO Maker	The init() function was vulnerable, attacker initialized 4 token contracts with malicious data then used the emergencyExit() function to drain funds.	The source code is not public so protecting and checking the project is a priority. Also to fix the vulnerability in the function.	4M USD	09/03/2021	ETH
	Reaper Farm	Attacker took advantage of that the recipients account verification had not been set up properly and drained the vault.	The project team closed down the vaults attacked, altered the code and waiting for full audit before launching again.	1.7M USD	01/08/2022	Fantom
Key exploit	Bent Finance	The contract used a non multisig wallet, allowing anyone that knows the private key to modify updates, which caused the attacker to create a back door. Attacker altered the code so that Bent finance would provide large amount of funds to the attacker's address.	Project team could have used multisig wallet to avoid and protected private keys in an appropriate way.	1.75M usd	12/21/2021	BNB
	Badger DAO	Attacker used a compromised API key to periodically inject malicious code into the contract. These codes are triggered when users try to perform transaction, allowing unlimited spend approvals for the attacker's address.	Project team working with cybersecurity firm to fix the problem, as well as authorities to recover any funds possible.	120M USD	02/12/2021	BNB

Source: Xu and Feng (2022)

But security was not the only factor. Even when protocols functioned as intended, their economic design created challenges that made it hard to sustain users over time. Xu and Feng (2022) highlight several recurring risks, all observed in practice:

RISKS AND THE IMPACT ON USERS

RISK	EXAMPLE FROM XU & FENG (2022)	IMPACT ON USERS
Yield dilution	Harvest Finance vaults in 2020 initially showed >100% APY. Once large deposits entered, yields fell below 10% within weeks.	Users who joined later earned only a fraction of the advertised returns, creating frustration and distrust in optimiser sustainability.
Conversion risk	Uniswap USDT-ETH LP tokens lost ~50% of their value compared to holding USDT and ETH directly during price swings.	Even if a vault compounded fees and rewards, users could still end up with less money than if they had simply held the assets.
Reward token risk	Harvest's FARM token dropped from \$300 in Sep 2020 to <\$100 within a month.	Users who relied on optimiser rewards saw their yields evaporate as reward tokens crashed, making "high APYs" misleading in practice.
Liquidation risk	Leveraged vaults using recursive lending (e.g. DAI-ETH strategies) were liquidated during ETH's price crash on "Black Thursday."	Depositors lost part of their collateral and faced penalties, meaning they exited with less than they put in despite initially seeing high yields.

Xu and Feng’s analysis shows that these risks were not theoretical. They appeared again and again in live strategies. Yield optimisers set out to reduce complexity, but in practice they introduced new risks and relied on weak economic designs that eroded trust. As a result, the sector did not recover at the same pace as the rest of the DeFi market.

Yearn

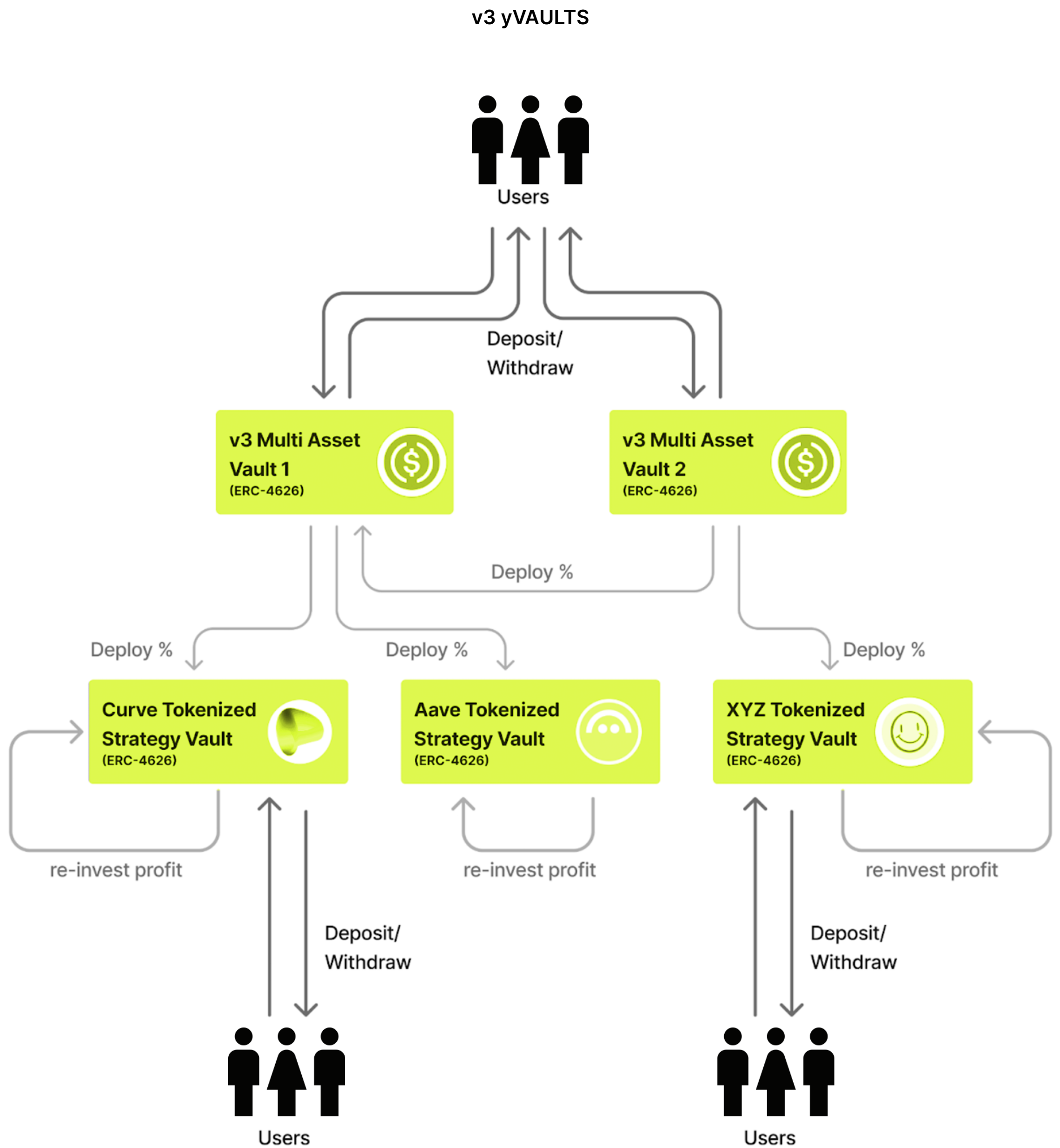
Out of the Gen 1 yield optimisers, one protocol that remains relevant and innovative is Yearn Finance. With \$558M in TVL, it ranks third in the yield optimiser category.

YEARN TOTAL VALUE LOCKED



Source: DefiLlama

In 2024, Yearn launched its V3 upgrade, a meaningful step forward from its earlier architecture. At the core of V3 is a vault system where users can deposit assets (for example, USDC on Ethereum) into either a single-strategy or multi-strategy vault. These deposits are then deployed across various venues on the same chain. In return, users receive an ERC-4626 token, a standardised tokenised vault share that can be freely integrated and used throughout DeFi.



Source: Yearn

While this design marks a notable improvement, especially compared to Yearn’s earlier bespoke structures, the platform still does not fully address the DeFi yield maze. Strategies remain chain-bound, and the scope of each vault is relatively narrow. Across most of Yearn’s vaults, capital tends to concentrate heavily in a single or a handful of strategies.

When we look at Yearn, its strengths and weaknesses can be summarised as follows:

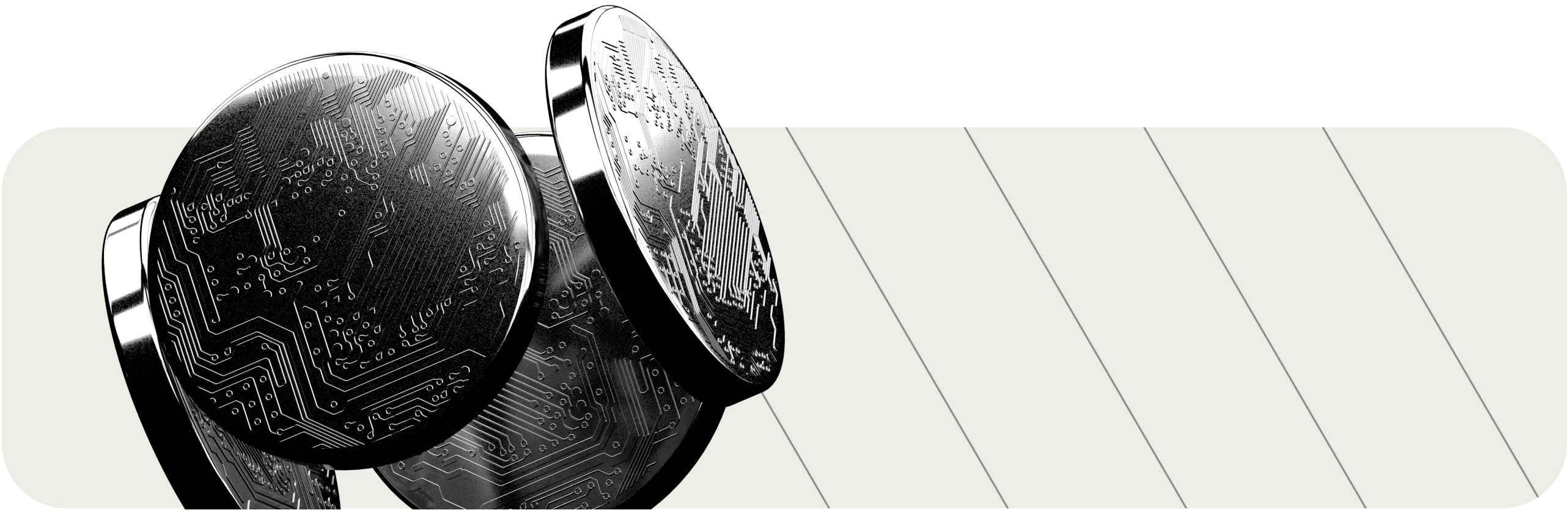
YEARN’S STRENGTHS AND LIMITATIONS

WHAT’S STRONG	WHAT’S LIMITED
ERC-4626 standardisation and tokenised strategies make vaults easier to integrate.	Each vault is chain-local with no cross-chain allocation.
Modular architecture makes strategies simpler to create, safer to manage, and cheaper to run.	Strategy breadth is narrow, with allocations often concentrated in a single venue.
Experienced team with a track record of operational discipline.	Users still need to bridge and manage capital across chains to reach other yields.

Yearn Finance has made important progress since the early Gen 1 yield optimisers, introducing ERC-4626 vaults and allowing deposits to be spread across multiple strategies instead of just one. This makes Yearn more flexible than its original design.

Still, it does not fully solve the challenge of navigating DeFi yields. Vaults remain tied to a single chain, limiting opportunities and driving users to bridge assets to access yield elsewhere. Strategy choice is also narrow. For example, the USDC vault on Ethereum lists eight strategies, but only three are active and over 90 percent of funds sit in one.

In the end, Yearn Finance has advanced on its original model but still reflects the Gen 1 framework.



Gen 2: Cross-Protocol Allocators

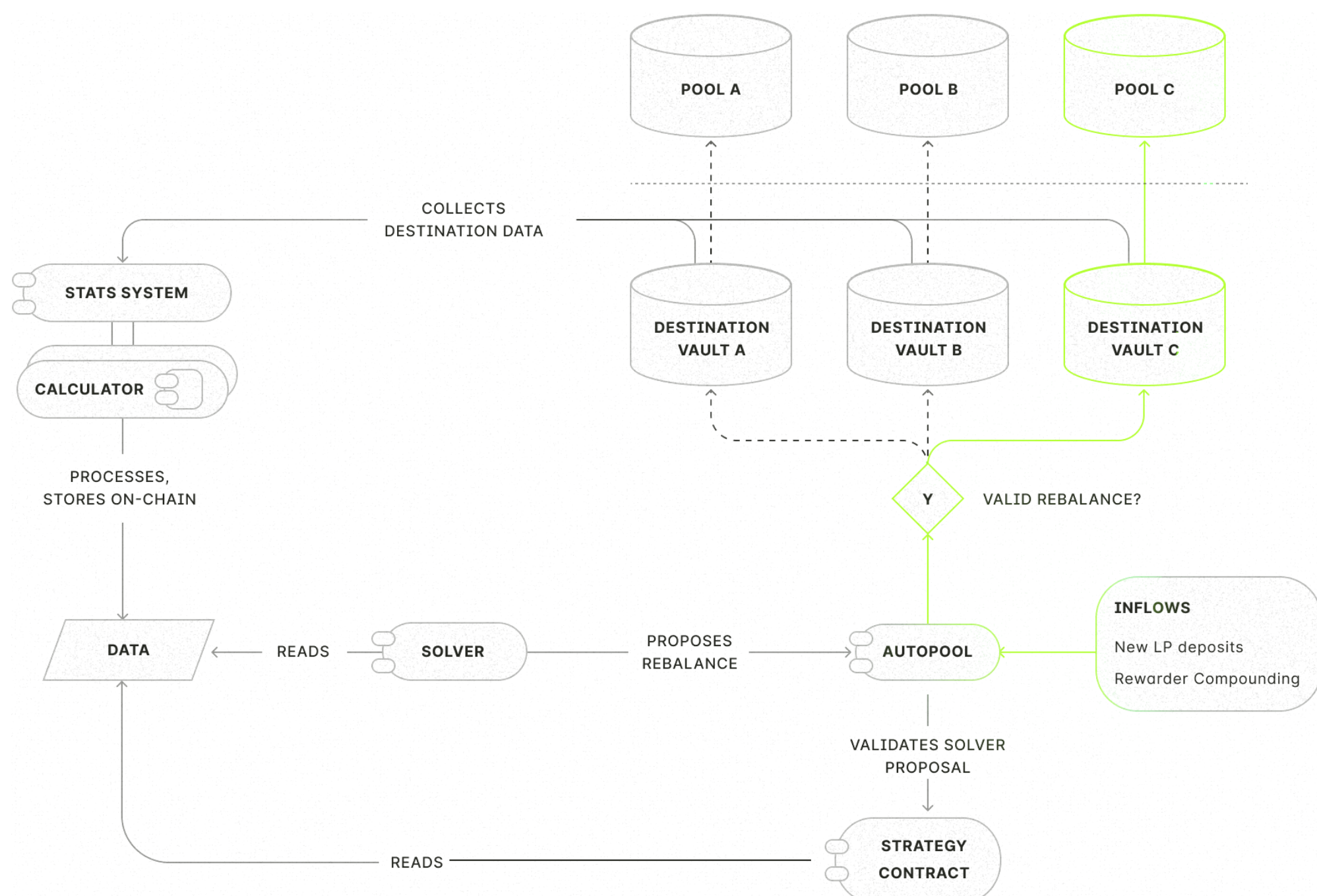
After the first wave, a new set of yield optimisers emerged that widened the menu of strategies and improved the user experience. Rather than a single vault routing to a handful of venues, Gen 2 products scan multiple protocols, rebalance on users' behalf, and issue cleaner, standardised receipts. This raises the floor on convenience and strategy quality compared with Gen 1.

A key limitation remains. Most Gen 2 systems deploy funds on the same chain where the user deposits. They broaden choice within a chain but do not give effortless access to the best yields across chains. Users still need to bridge if the optimal venue sits elsewhere.

Tokemak

Tokemak's Autopilot is a clear example of a Gen 2 approach. Users deposit into Autopools, which represent a curated set of destinations such as lending markets or DEX liquidity pools. Once funds are deposited, Autopilot continuously monitors metrics like APR stability, trading fees, slippage, and gas costs to determine whether liquidity should be rebalanced. This creates a system of reactive liquidity that adapts as market conditions change.

AUTOPILOT SYSTEM ARCHITECTURE

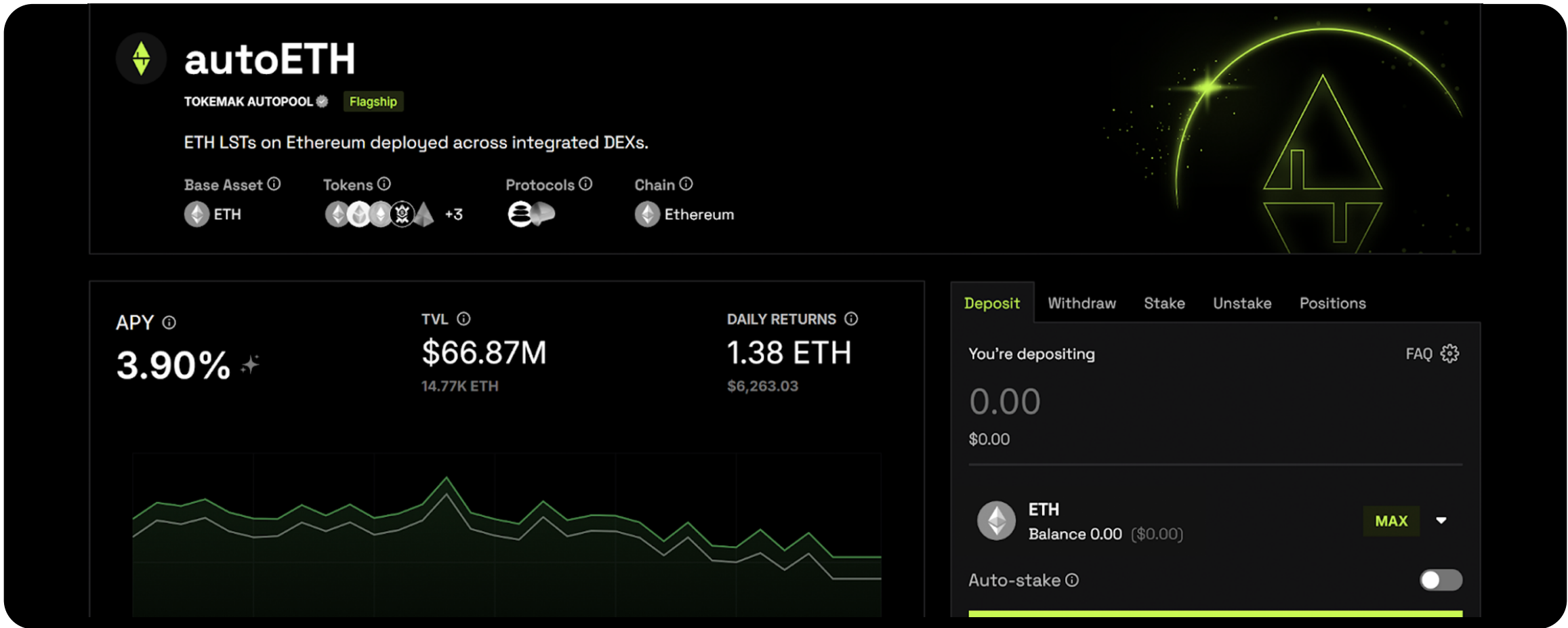


Source: Tokemak

In practice, this means an ETH depositor receives a yield-bearing token such as autoETH, while Autopilot handles all the complexity of compounding rewards, rebalancing between pools, and minimising costs.

For stablecoins, Tokemak has launched autoUSD, which deploys across lending protocols (Aave, Morpho, Fluid), DEXs (Curve, Balancer), and yield-bearing assets (sUSDe, sFRAX, scrvUSD). As yields shift across these venues, Autopilot reallocates autonomously to maintain performance.

autoETH AUTOPOOL



Source: Tokemak

This marks a significant evolution from Gen 1. Instead of a static vault tied to one or two venues, Autopilot creates a flexible layer that abstracts the decision-making process.

However, despite these advances, Tokemak is still confined to chain-local deployments. If the best stablecoin yield sits on another chain, users must bridge and enter a different Autopool there, reintroducing friction.

TOKEMAK’S STRENGTHS AND LIMITATIONS

WHAT’S STRONG	WHAT’S LIMITED
Automated allocation across multiple venues, with rebalancing driven by on-chain data.	Still chain-local: users must bridge to capture opportunities on other chains.
Yield-bearing receipt tokens (e.g., autoETH, autoUSD) that integrate easily across DeFi.	Autopools are preconfigured, so venue breadth is capped by pool design.
Simplifies the LP experience by auto-compounding rewards and handling rebalances.	Reliance on complex rebalance logic (Solver, Strategy contracts) introduces operational complexity and potential points of failure.

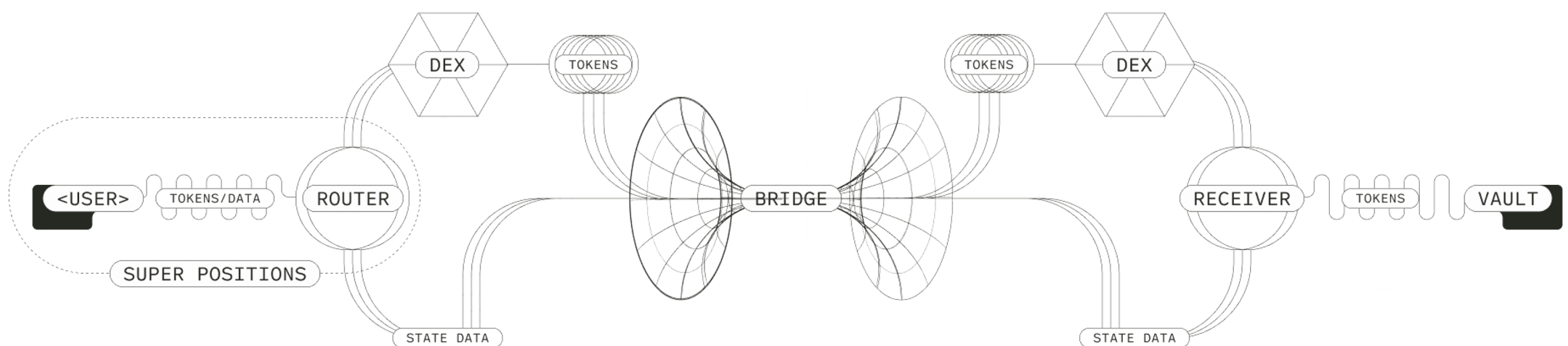
Tokemak improves on Gen 1 by widening strategy breadth within a chain, automating rebalancing, and simplifying the LP experience through receipt tokens. Yet it still leaves users with the same core challenge: opportunities remain chain-bound, and capturing yield elsewhere requires bridging and interacting with new pools.

Superform

Superform is another example of a Gen 2 optimiser. Its design is built around Superform Core, which uses modular hooks to combine actions such as lending, staking, or looping into a single on-chain flow. On top of this sits the Superform Periphery, which introduces SuperVaults and SuperAssets.

SuperVaults are vaults that run strategies defined through hooks and publish deterministic price-per-share updates. Strategists can create and manage these vaults, but their operations are subject to predefined rules and timelocks.

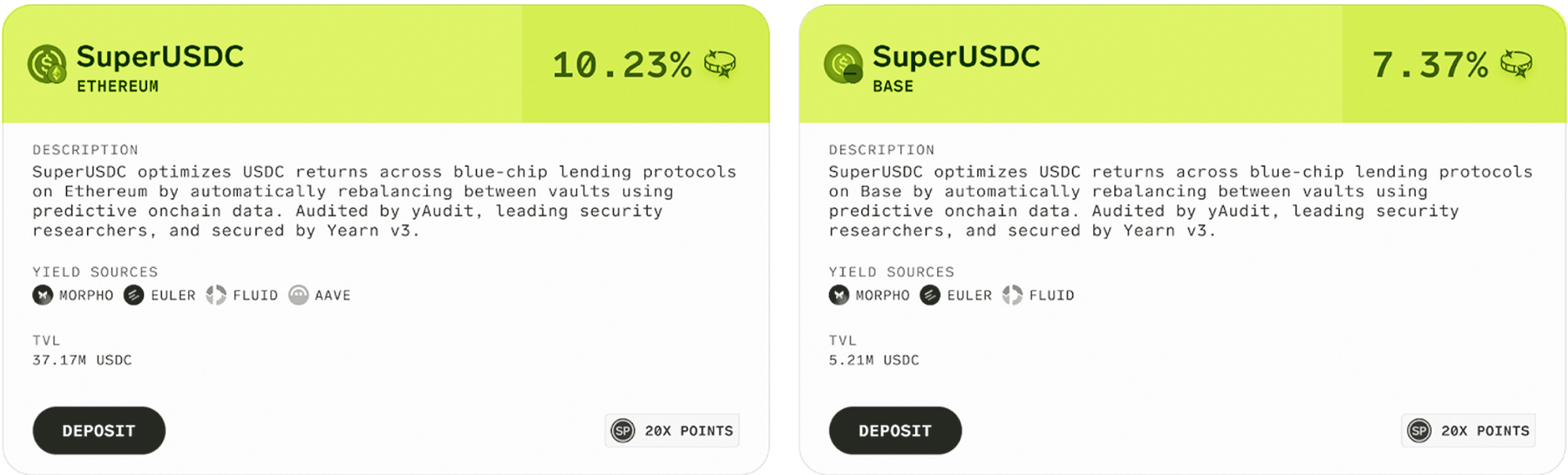
SUPERFORM'S ARCHITECTURE



Source: Superform

For users, SuperAssets such as SuperUSDC are designed to act as savings tokens that combine yield from multiple SuperVaults. However, in practice, Superform remains chain-local. Users deposit on a single chain, and yields are generated only within that environment, meaning they still need to bridge to access opportunities on other networks.

SUPERFORM'S SUPERUSDC POOLS



Source: Superform

With Superform v2, which recently went live on mainnet but is not yet publicly accessible, the protocol aims to improve this model. V2 introduces validator-secured vaults, omnichain SuperAssets, and one-signature execution flows. The vision is to make cross-chain allocation native and automatic.

SUPERFORM'S STRENGTHS AND LIMITATIONS

WHAT'S STRONG	WHAT'S LIMITED
Modular hook system allows actions like bridge, swap, lend, and stake to be bundled into a single on-chain flow.	Cross-chain allocation is still not fully live; most user interactions remain chain-specific.
SuperVaults give strategists a flexible way to design yield strategies.	The architecture is complex, with multiple moving parts (validators, hooks, bundlers) that add overhead and integration challenges.
SuperAssets aim to simplify user experience by packaging yield from multiple vaults into a single token.	Yield sources per vault remain narrow, typically 3–4 strategies that are chain-bound.

Superform introduces more advanced infrastructure than earlier generations, with validator-secured vaults, modular execution, and user-facing assets designed for omnichain yield.

However, in its current form, most vaults remain limited to a few strategies on a single chain, meaning it does not yet deliver the seamless crosschain access needed to guide users through the broader yield maze. With Superform v2 now live on mainnet but not yet open to the public, the model may improve on these limitations.

The Opacity Problem

DeCeFi: Expanding Breadth, Reintroducing Trust

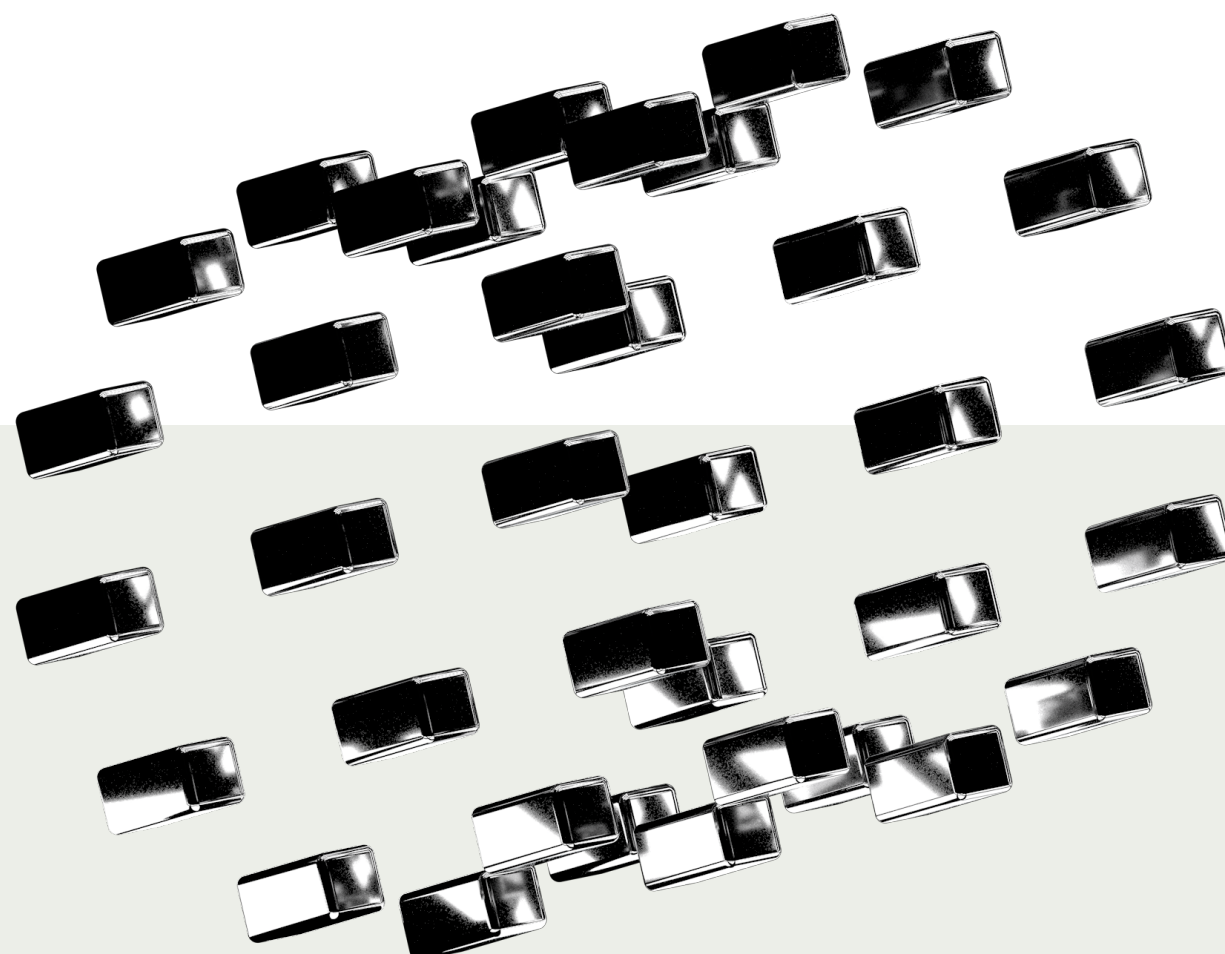
While Gen 2 optimisers widened the scope of strategies and improved user experience, they were still bound to chain-local execution. A new wave of protocols that more closely resemble DeCeFi (Decentralized-Centralized Finance) pushes further by offering access to more complex and higher-yield strategies, including those typically used by institutional players.

The trade-off is that these products are no longer fully trustless. Instead of everything being verifiable onchain, they rely on curators, whitelisting, or even third-party market makers. Users gain access to broader yield, but at the cost of counterparty risk. Upshift and Stream illustrate this shift.

Upshift

Upshift Finance structures its vaults using the ERC-4626 standard. Users deposit a base asset, such as USDC, into the vault and receive a receipt token in return. The deposited funds are deployed through August subaccounts, which work as isolated smart contract wallets. Each subaccount is linked to a specific strategy, making performance and accounting easier to follow.

Subaccounts are managed by Curators. Curators cannot withdraw funds directly. Instead, they must follow strict contract rules that allow deployment only to approved protocols, assets, and addresses. The whitelist of approved destinations is set by Upshift and its main infrastructure partner, August Digital, which acts as the strategy broker. As a result, capital is managed by permissioned governance rather than being fully automated by code.



UPSHIFT: THE DEFI YIELD PLATFORM BUILD ON A \$7B PRIME BROKERAGE

UPSHIFT: THE DEFI YIELD PLATFORM BUILT ON A \$7B PRIME BROKERAGE

AUGUST

Upshift is built on **August**, DeFi infrastructure allowing institutions to trade, lend and borrow with maximum **efficiency**.

UPSHIFT

By integrating with August, Upshift offers the most capital-efficient, risk-adjusted way for depositors to maximize yield across DeFi.

EARN **CAPITAL-EFFICIENT** YIELD ON BTC, ETH, HYPE, USDC, USDT AND MORE

Source: Upshift

When strategies generate returns, the yield is sent back from the subaccounts to the vault as “interest.” This increases the value of the ERC-4626 receipt token. Curators have some control over when yield is realised. For example, if a strategy runs for a fixed term, rewards may only be distributed when that term ends, rather than continuously.

UPSHIFT’S YIELD POOLS

Deposit

Upshift is powered by August, DeFi prime services infrastructure with \$7B monthly volume. Upshift deposits over \$500k can borrow against their position on August. Reach out [here](#).

\$448,256,121

Total Deposited

Featured vaults

\$130.88M Total Deposited 6.74% Target APY Deposit Tokens Rewards Deposit	\$30.19M Total Deposited 15.00% Target APY Deposit Tokens Rewards Deposit	\$30.71M Total Deposited 8.00% Target APY Deposit Tokens Rewards Deposit	\$14.56M Total Deposited 10.00% Target APY Deposit Tokens Rewards Deposit
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Source: Upshift

Solving the DeFi Yield Maze: The Rise of Gen 3 Optimizers

17

Withdrawals follow a redemption request system. Users submit their request, wait out an optional cooldown, and then redeem their receipt tokens. At this point, the vault burns the tokens and returns the base asset. Idle capital in subaccounts helps provide the liquidity needed for redemptions.

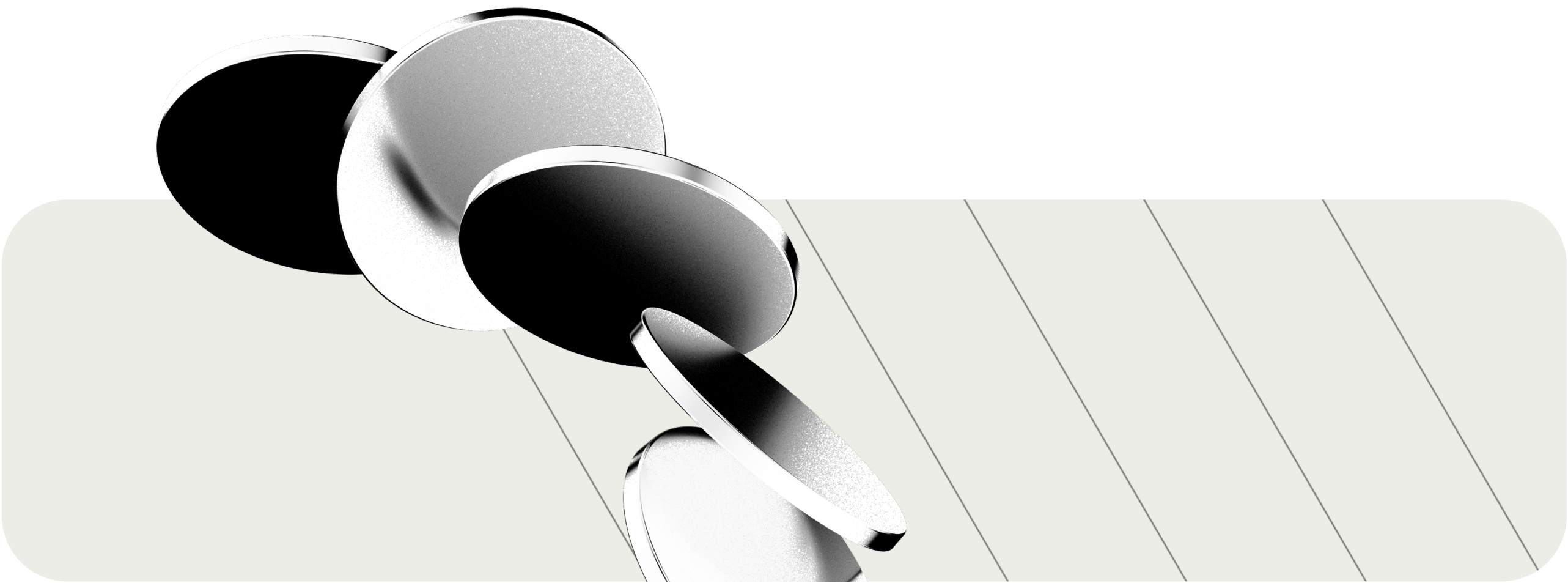
Upshift’s design also supports multi-chain deployments. Subaccounts can operate on networks such as Ethereum, Avalanche, and Hyperliquid, while keeping the same vault address across chains. This makes it possible to run strategies across different ecosystems, although the model still relies on permissioned governance.

UPSHIFT’S STRENGTHS AND LIMITATIONS

WHAT’S STRONG	WHAT’S LIMITED
Segregated subaccounts improve accounting, transparency, and strategy isolation.	Counterparty risk remains, as strategies are curated and managed off-chain by August Digital.
ERC-4626 vault standard ensures composability with other DeFi protocols.	Yield realisation is discretionary, reducing predictability for users.
Multi-chain deployment allows users to access strategies across several ecosystems.	Centralisation risk: protocol is heavily reliant on one infrastructure partner.

Upshift Finance broadens strategy access by packaging complex, institutional-grade opportunities into standardised vaults. It also improves on earlier generations by enabling multi-chain strategies and reducing the barriers for users to access diverse yields.

However, because vaults are managed by curators and strategy execution is handled off-chain by August Digital, the model introduces counterparty trust. This makes it a step forward but does not offer a perfect solution for users seeking fully trustless, verifiable yield.



Stream

Stream Finance offers users exposure to market-making and delta-neutral strategies through vaults. Users deposit assets such as USDC into a wrapper contract, which issues a wrapped token (for example xUSD). This token must then be staked in the vault contract, where users receive non-rebasing shares that represent their claim on the vault's performance.

The vault yield comes primarily from non-directional DeFi strategies such as providing liquidity on DEXs or engaging in funding-rate arbitrage. For example, delta-neutral strategies involve holding both long and short positions on an asset, capturing funding payments without taking price exposure.

STREAM'S XUSD POOL

xUSD 0xE2Fc...6F94

112,232,516.78 USDC
Total Value Locked

18%
Estimated Yield

Token Supply Cap 120,000,000 USDC

This is a vault which takes advantage of non-directional trades to earn high yield.

Deposit **Withdraw**

You will deposit:

0.00 MAX USDC

Available to deposit: 0 USDC
The maximum amount you can deposit before reaching the cap.

The vault token for this strategy is xUSD

Deposit

Source: Stream Finance

The architecture also allows Stream to allocate capital to external professional market makers when vaults reach capacity. These allocations are announced and logged in a transparency dashboard, but they occur off-chain and introduce counterparty exposure. Unlike a trustless optimiser, users cannot verify positions in real time. Stream instead publishes monthly performance reports, which provide some visibility but leave users without continuous proof of how capital is deployed.

Withdrawals are subject to a short cooldown period. When unwrapping the wrapped token, Stream requires a one-day delay to give vault keepers time to settle positions and return liquidity. This ensures solvency but means withdrawals are not immediate.

Overall, Stream combines DeFi automation with discretionary off-chain execution. The model gives users access to high-yield strategies that are otherwise out of reach, but with limited transparency and reliance on Stream and its partners to act responsibly.

STREAM’S STRENGTHS AND LIMITATIONS

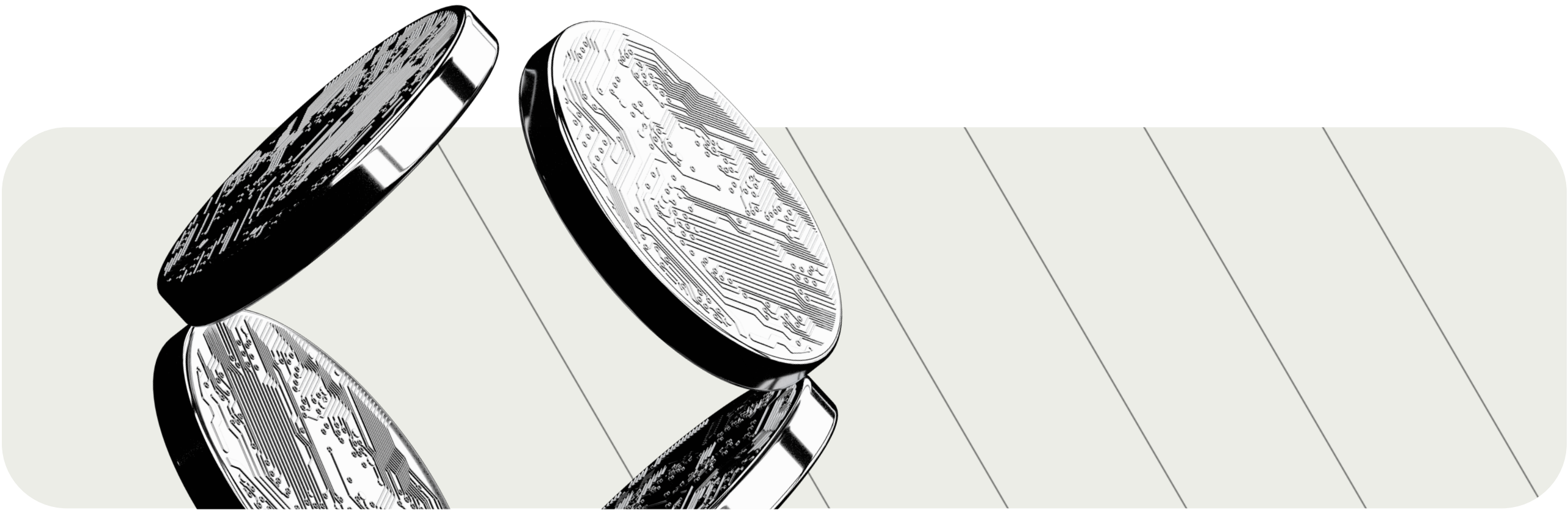
WHAT’S STRONG	WHAT’S LIMITED
Simple deposit, wrap, and stake flow lowers barriers for users.	Yield generation is not fully transparent; positions are not verifiable in real time.
Delta-neutral and market-making strategies provide high-yield potential.	Counterparty risk from reliance on external market makers for excess capacity.
Monthly reporting and a transparency dashboard offer some oversight.	Withdrawals involve a cooldown, limiting immediacy of access to funds.

Stream Finance gives DeFi users access to advanced strategies with competitive yields, but the model depends on trust. Users cannot verify strategies on-chain in real time and must rely on Stream’s reporting and off-chain market makers. This limited transparency reintroduces counterparty risk, making it a model that is not necessarily the right fit for users seeking a robust or fully trustless solution.

Onchain Capital Allocators

A more recent evolution beyond DeCeFi models is the rise of onchain capital allocators. Unlike protocols such as Upshift or Stream, where yield depends on opaque or offchain strategies, onchain allocators deploy funds entirely within DeFi venues. Strategies are fully visible and verifiable onchain, reducing opacity and aligning more closely with DeFi’s principle of transparency.

This model provides more guardrails than DeCeFi optimizers, but it still leaves users in a position where yield ultimately depends on human judgment. Transparency improves around which strategies are allowed, but not why those strategies are chosen, and governance typically has little or no say in the process. This shifts the model closer to DeFi’s ethos, but not all the way, as users must still trust the curator’s discretion rather than independently verify it themselves.



How DeFi Yield Should Be Built

Gen 3: Fully Transparent, Multichain Allocators

Each generation of yield optimisers has addressed some of the challenges facing DeFi users, and made important progress in addressing the DeFi yield maze. Gen 1 introduced automation through a single chain. Gen 2 expanded the range of strategies within a single chain. DeCeFi opened access to more advanced strategies.

Gen 3 optimisers bring these lessons together in a new model that is broader, safer, and fully verifiable onchain. They should be built around five core pillars:

1. Security above all

Earlier vault systems often created new attack surfaces through complex contracts and fragile integrations, leading to high-profile exploits and lost funds. Gen 3 optimisers reduce these risks by building on standardized vault frameworks such as ERC-4626, enforcing strict permissioning, and using mechanisms like asynchronous redemption to avoid forced liquidations. Security must be independently audited and proven before capital scales.

2. Transparent risk management without counterparty risk

One of the main weaknesses of previous optimisers was opacity. Users rarely had a clear view of how strategies operated or what risks they carried. Gen 3 solves this by making strategy allocations fully visible onchain and attaching clear, standardized risk metrics to each. This lets users weigh expected returns against potential downside, rather than relying on opaque dashboards or discretionary curators.

3. Crosschain to harvest all of DeFi's yield

Capturing yield across chains has historically required manual bridging, which introduced slippage, fees, and delays that eroded returns. Gen 3 optimisers eliminate this friction by automating crosschain allocation. Vaults dynamically reallocate capital between ecosystems such as Ethereum, Base, Solana, and others to pursue the best available risk-adjusted yields while minimising inefficiencies. This allows users to access cross-ecosystem opportunities without the operational burden.

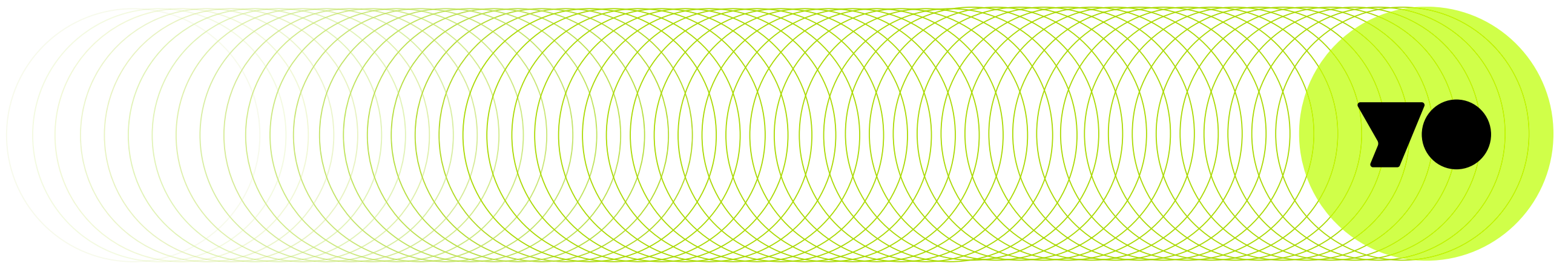
4. Simple user experience

Previous products placed a heavy load on users, who had to manage dashboards, track compounding, and handle redemptions themselves. Gen 3 optimisers abstract away this complexity. Users receive receipt tokens representing their vault shares, which automatically accrue yield. Redemptions follow a clear, standardised process, making yield access simple and reducing barriers for both retail and institutional participants.

5. Algorithmic optimization

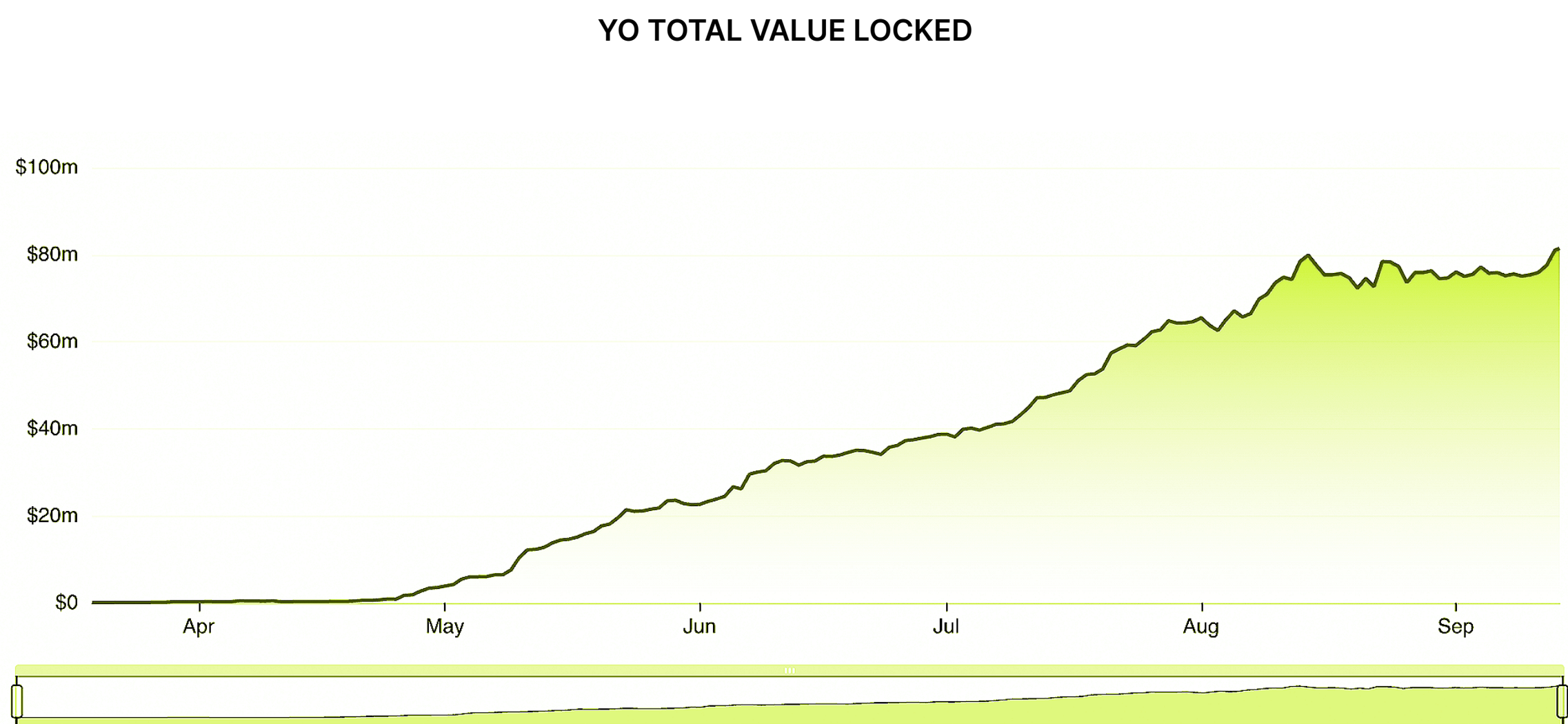
Allocations should be governed by transparent, rules-based algorithms rather than human discretion.

Optimisers must evaluate expected returns net of costs, adjust for modeled risk, and rebalance only when the projected improvement is positive after slippage and fees. Guardrails ensure stability, while automation ensures consistency and scale.



Is YO the Gen 3 We Are Waiting For?

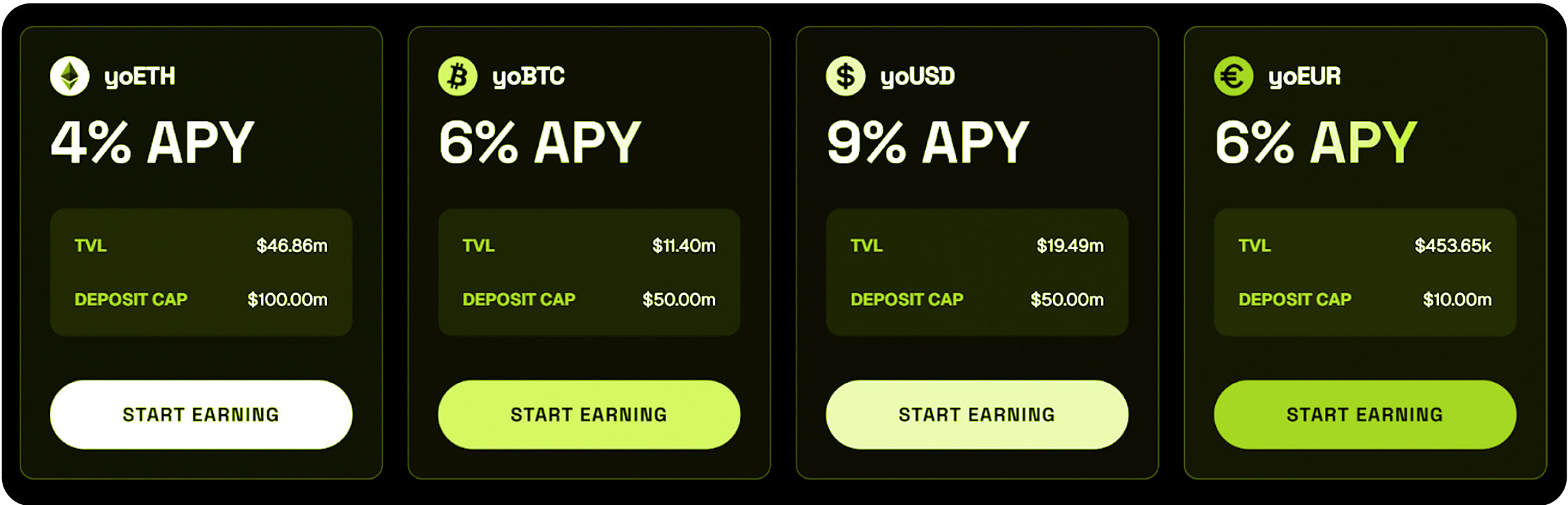
One example of this new Gen 3 model is YO, short for Yield Optimizer. The protocol launched in March 2025 and has since scaled to a TVL of \$80 million.



Source: DefiLlama

YO allows users to deposit once and gain exposure to diversified, risk-adjusted strategies across multiple blockchains. In return, they receive yoTokens such as yoETH (\$46M TVL), yoBTC (\$14M TVL), yoUSD (\$25M TVL), and more recently, yoEUR (\$1M TVL). These tokens automatically accrue yield and can be used across DeFi as collateral, in liquidity pools, or within yield-trading protocols.

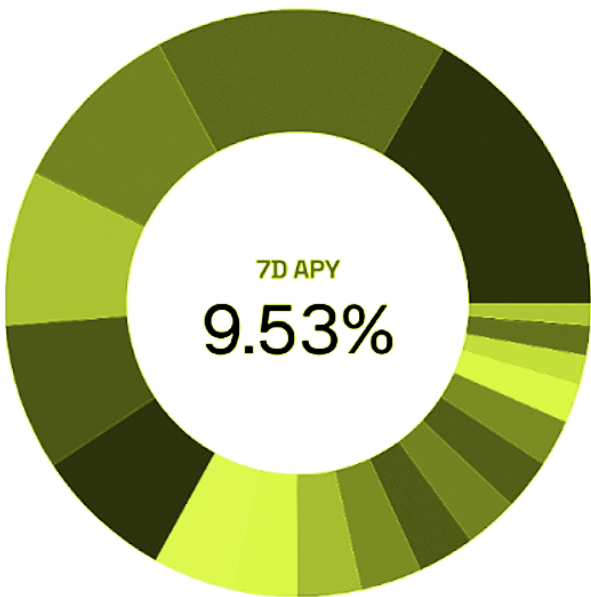
YO'S YIELD POOLS



Source: YO

Crucially, YO achieves this without curators or discretionary off-chain managers. Instead, it relies on a fully automated, trustless architecture where all allocations are verifiable onchain, each carrying a risk score within the vault, while tapping into yield opportunities across multiple chains.

YO'S STABLECOIN VAULT BREAKDOWN



Source: YO

	ALLOCATION	RISK	7D APY	
Pendle PT-USDe Sep-25 Ethereum	16.71%	Low	10.42%	>
Tokemak baseUSD Base	16.15%	Moderate	10.93%	>
Fluid GHO Base Base	9.82%	Low	9.72%	>
Aave-Umbrella USDT Ethereum	8.54%	Moderate	8.23%	>
IPOR Reservoir srUSD Looping Ethereum	8.07%	Moderate	0.00%	>

How YO is Pushing the Frontier as a Gen-3

YO solves many of the challenges yield optimisers have faced previously, such as limited strategies, single-chain scope, or reliance on curators and off-chain managers.YO delivers the breadth, transparency, and trustlessness users have been waiting for.

A COMPARISON OF YIELD OPTIMISERS

FEATURE	YEARN (GEN1)	TOKEMAK (GEN2)	SUPERFORM (GEN2)	UPSHIFT (DECEFI)	STREAM (DECEFI)	YO (GEN 3)
Pure DeFi / minimal counterparty risk	✓	✓	✓	✗	✗	✓
ERC-4626 standard vaults	✓	✓	✓	✓	✓	✓
Multiple strategies per vault	⚠ Limited	✓	✓	✓	✓	✓
Strategies across multiple chains	✗	✗	✗	✓	✓	✓
Fully trustless (no curators or managers)	✓	✓	⚠ Partial	✗	✗	⚠ Partial

YO gets another step closer to fully solving the DeFi yield maze. It combines the breadth of strategies needed to give users real access across assets and chains with a simple, accessible product experience.

At the same time, it preserves full trustlessness and onchain transparency, letting users see exactly where funds are deployed and what risk scores apply. This makes YO a Gen 3 solution that is broad, safe, and transparent.

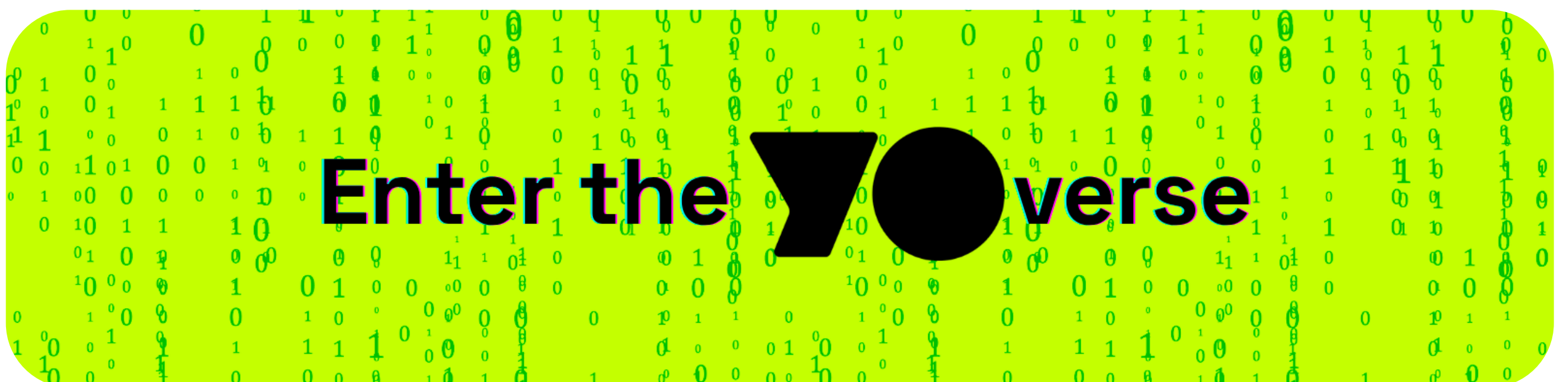


The Road Ahead for YO

While YO already delivers on the Gen 3 vision with automated, trustless, multichain yield allocation, the protocol is still early in its journey. Several areas of development point to how YO can expand and mature in the years ahead::

- **User choice and customization:** Today, YO optimizes around a single risk-adjusted allocation framework. In the future, vaults could allow depositors to select their preferred risk profile. For example, “pure DeFi only” strategies versus a broader mix that incorporates newer, higher-risk venues. This would give users more flexibility while preserving YO’s core automation.
- **Onchain governance and immutability:** The optimizer logic currently runs offchain, with upgrades still possible as strategies evolve. Moving more of this decision logic fully onchain, and committing key parameters to immutable code, would further align YO with DeFi’s principles of transparency and trust minimization.
- **Expanding beyond EVM ecosystems:** YO currently deploys across EVM-compatible chains such as Ethereum, Base, and Unichain. Extending to non-EVM environments like Solana, Sui, and Aptos would open access to an even broader set of yield opportunities, reinforcing YO’s position as the universal onchain allocator.

YO’s Gen 3 framework has already marked a leap forward in security, transparency, and crosschain automation. The next stage will be about deepening user choice, embedding more of the optimiser logic directly onchain, and broadening reach across ecosystems, steps that will continue to push the boundaries of what DeFi yield can offer.

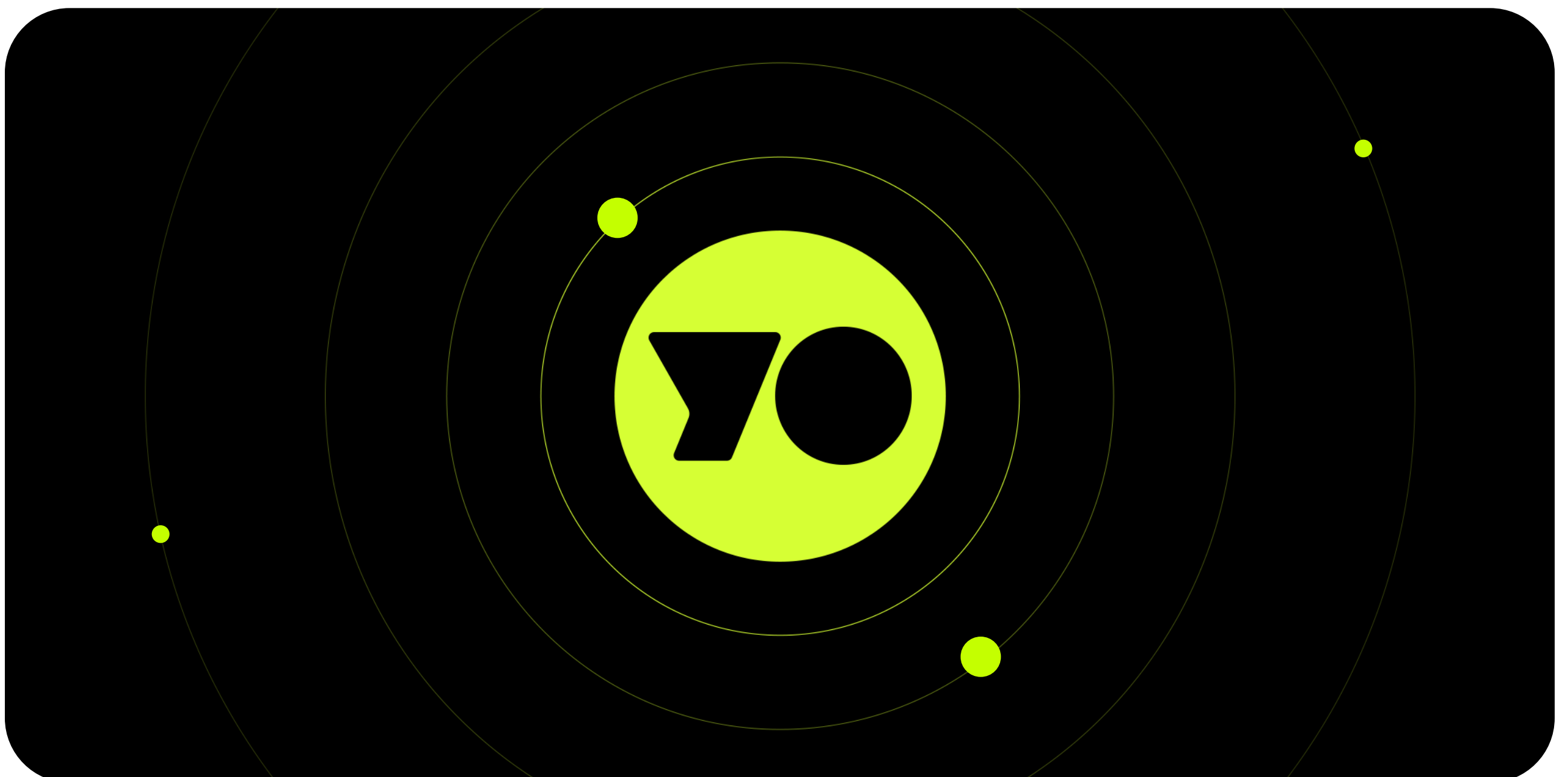


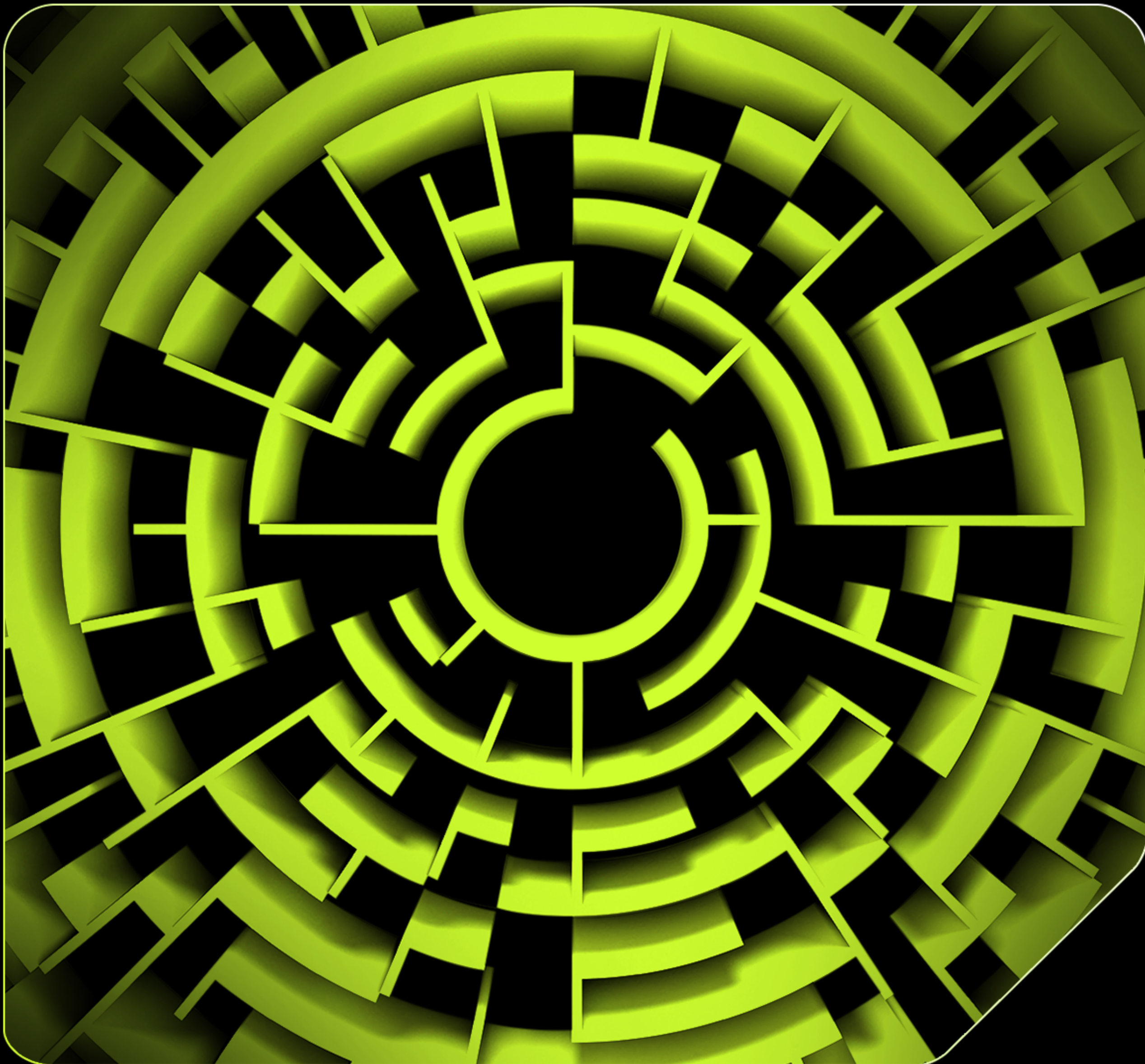
Conclusion

The evolution of onchain yield reflects the broader maturation of the ecosystem itself. From the experimental days of Gen 1 vaults, through the incremental improvements of Gen 2 allocators, to the semi-centralized DeCeFi approaches, each stage has revealed both the strong demand for yield and the pitfalls of opaque, trust-heavy models.

Gen 3 optimisers represent a genuine breakthrough with safer vault designs, full onchain transparency, crosschain execution, and algorithmic rebalancing. These innovations directly address the barriers that have held back broader adoption of DeFi.

But the story is bigger than any one protocol. For DeFi to reach its full potential, the sector must continue to raise the bar on security, transparency, and accessibility. With Gen 3 architectures now live, the foundation has been set for onchain yield to move from a niche experiment to a central building block of the global financial system.





DLResearch × 

Solving the DeFi Yield Maze: The Rise of Gen 3 Optimizers

