Decentralized Finance for Everyone

CIVILIZATION

Whitepaper v.2

Contents

1. Civilization's Vision:
Decentralized Finance for everyone

How to democratize finance and build a new civilization through Decentralized Finance ("DeFi")?

A fraction of individuals in the world have any exposure to DeFi — over 95% of the nearly 300 million cryptocurrency investors worldwide have not ventured beyond a centralized exchange.[1]

A staggering 1.7 billion people in the world do not have bank accounts. Of them, 1 billion have access to a mobile phone and 480 million to the internet.[2] In 2021 alone, revenues from the global payment market totaled $1.98 trillion. This figure is forecasted to grow with time as technology advances and more purchase smart devices.[3] Roughly $650 billion of this market are remittances sent every year with an average fee of 6%.[4]

Decentralized Finance is the solution to these inefficiencies and how those underserved by the current financial structure can be brought up to speed. It is all but certain that DeFi's adoption will run parallel with the growth of this market and open up accessibility to those who are currently "offline."

Liquidity in DeFi protocols quickly increased from ~$800 million to ~$80 billion from May 2020 to May 2021. In 2021 alone, over $1 billion in fees were paid to decentralized liquidity providers – irrespective of the market's direction.[5] As DeFi matures and is further adopted, liquidity and fees paid to liquidity providers will grow with it.

We, Civilization, are the lighthouse that guides people to the abundance of opportunities in DeFi: an exciting, young, and still relatively uninhabited space.

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[1] https://www.coindesk.com/business/2022/05/16/coinbase-expands-features-allowing-some-app-users-to-access-ethereum-based-dapps/
[2] The Global Findex Database, 2017 Report; The World Bank (2020 and 2021 data)
[3] https://reports.valuates.com/market-reports/QYRE-Othe-1F198
[4] The Global Findex Database, 2017 Report; The World Bank (2020 and 2021 data)
[5] DeFi Pulse. 2021. https://defipulse.com/

2. Technology & fund management opportunities

We identify opportunities in DeFi and make them available to everyone by:

1. Building technology for individuals to use and other DeFi projects to license
2. Automating a market-neutral, multi-strategy investment fund

Our technology products are the decentralized apps ("dApps") CivTrade and CivFarm. Our investment fund is CivFund and is currently under active development.

Our **technology dApps** empower users with professional-grade tools accessible through simple and intuitive interfaces, always with decentralization at the heart. Our goal is for Civilization to be a leading technology provider to consumers and projects alike, licensing our technology to partner projects. This will strengthen the Civilization ecosystem and make it a pillar of DeFi, much like Binance to CeFi.

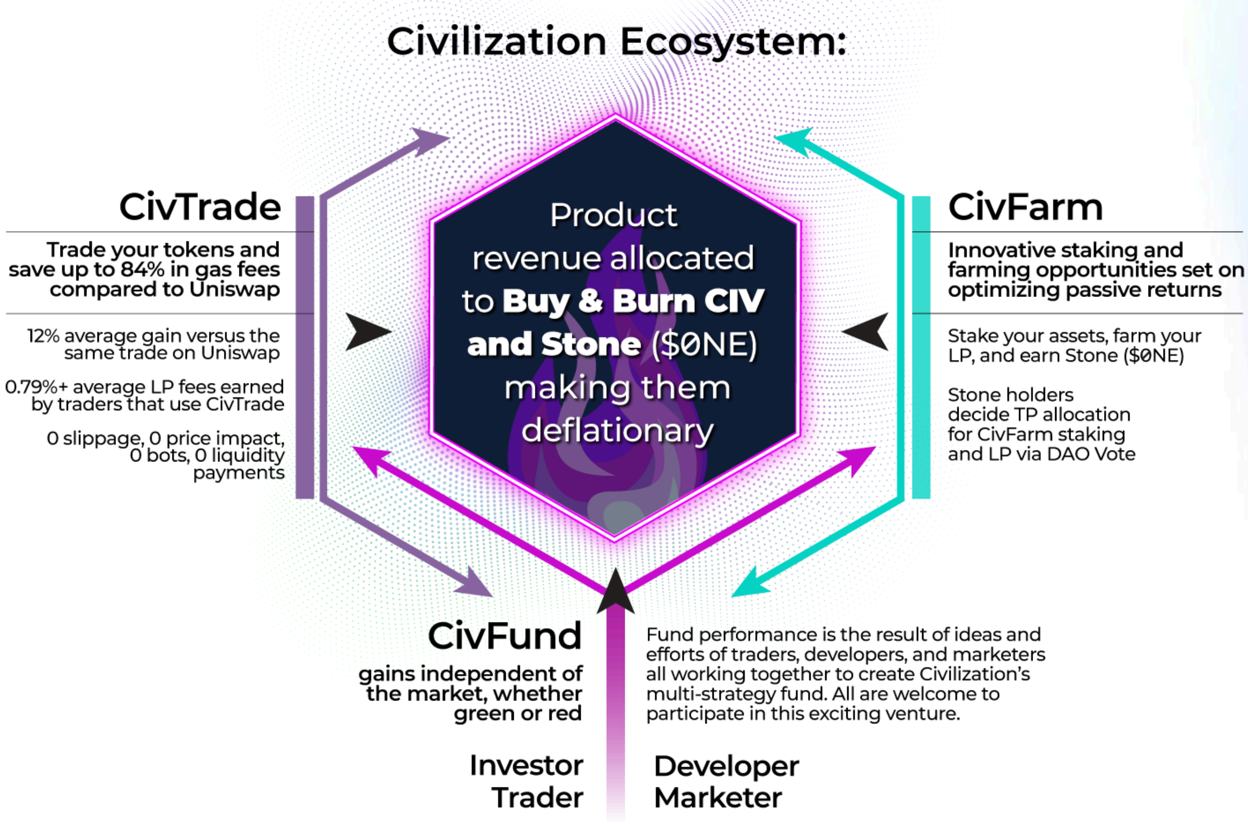
Our decentralized **investment fund** uses a multi-strategy approach, combining multiple trading and investment strategies to bring investors the highest returns with the least amount of risk. This is how traditional players like Millennium Management consistently achieve double-digit returns year after year.

We have positioned our community to identify other inefficiencies and/or opportunities in DeFi as it evolves over time with increased adoption. This will enable us to maintain our edge well into the future.

We are aiming to make a mark on the financial world – becoming the Binance-Millennium of DeFi, the accessible and cohesive "one-stop-shop" ecosystem, opening up access to everyone.

2.1 Technology: decentralized Applications (dApps)

Civilization's dApps democratize finance by making world-class products accessible to traders and investors of all knowledge and experience levels.



a. CivTrade

CivTrade is our innovative U.S. **patent-pending trading platform**. It empowers traders with similar tools to the traditional centralized world they are accustomed to – only fully decentralized. CivTrade launched in December 2021, based on Uniswap v3's innovative concentrated liquidity protocol.

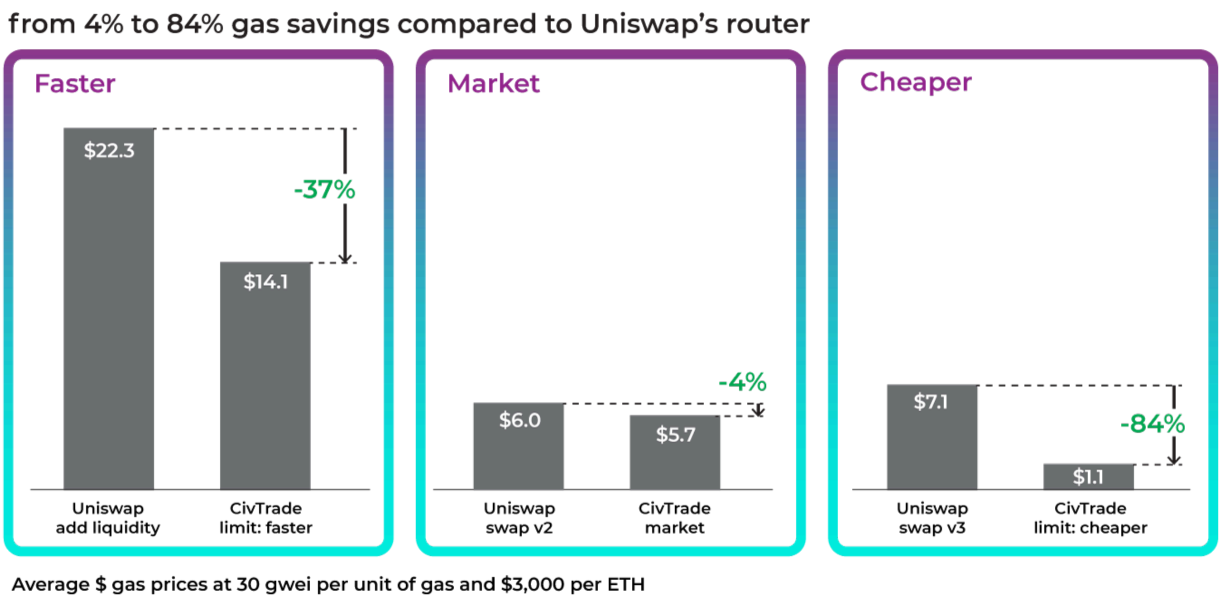
With Uniswap's update from v2 to v3 in May 2021 came over $1.2 billion in liquidity and a daily volume of $1.6 billion within just three weeks.[6] However, the capabilities it introduced are still not widely understood.

[6]Source: Uniswap v3 Analytics. https://info.uniswap.org/#/

CivTrade leverages Uniswap v3 to bring the DeFi version of **limit orders**: it opens a concentrated liquidity position around the target (limit) price, then uses Chainlink Keepers to monitor the position and close it when filled.

On top of introducing the first fully decentralized limit order system, CivTrade pays traders protocol fees by making them liquidity providers on v3. Its "Pro" upgrade implements the world's first and (currently) only fully **decentralized order book**, bringing a sense of familiarity to traders with experience in CeFi.

Ethereum's high gas fees are a barrier of entry to DeFi for many, so we designed CivTrade to have **lower gas fees than Uniswap.**



CivTrade versus Uniswap historical average[7]

CivTrade supports over 5,000 tokens with **no front running, slippage, or price impact**. Its ProView shows traders a token's trade history with in-depth charting tools. More information on how to use CivTrade, an in-depth look at all the benefits it offers, as well as how we made it, is available here.

CivTrade's patent-pending technology can also be used as a **decentralized token launchpad**, allowing token launch and fundraising events to be carried out in a completely equitable manner: investors automatically receive their proportional share of tokens regardless of when they commit their funds. No "first-come, first-serve" like many other systems!

[7]Blockchain data, retrieved from Uniswap and CivTrade's contracts, can be independently vetted via Etherscan

Launchpad orders are executed proportionally at the end of the fundraising window, kissing "sniping bots" and the capital saturation they cause goodbye. Investors can even withdraw their funds at any time until the fundraising deadline without risk or penalty.

If the fundraising target is exceeded, the system automatically reimburses the excess unallocated funds proportionally to all participants at no extra cost to them.

b. CivFarm

CivFarm is our **staking and farming** platform. It mitigates the risk of impermanent loss by pooling multiple providers' liquidity and rewarding them over and above their regular liquidity fees with Stone token.

The initial version of CivFarm allows users to earn rewards for staking Civilization ecosystem native tokens, providing liquidity to major pairs in the Civilization ecosystem (i.e., CIV:ETH), and staking the NFT Emerald Civilization collection.

Civilization can change stake-able assets on the farm, as well as their weighting, reward, and period of availability on the dApp via DAO consensus. This is so the farm can adapt to changing market conditions that it operates in.

More information on CivFarm, including how to use it, a more in-depth look at all the benefits it offers, as well as how we made it, is available here.

c. Licensing

Many new projects in DeFi are looking for reliable technology partners to help achieve their goals. Civilization offers its uniquely innovative technology solutions to partners through the following services:

- **Trading** platform: CivTrade's licensed, patent-pending technology for concentrated liquidity management
- **Farming and staking** platform: developing staking and farming platforms for liquidity management
- **Consulting** services: managing and operating within concentrated liquidity, specific but not exclusive to the development and design of technology solutions.

All revenues generated from licensing our technology are allocated to **burning $0NE**.

2.2 Fund management: CivFund

CivFund is what truly sets us apart. We bring the world its first decentralized investment fund and, with it, access for the unbanked to a comprehensive financial instrument beyond staking.

CivFund is a multi-strategy system designed to deliver maximum yield at minimum risk, with portfolios ranging from high growth to zero risk.

CivFund will initially accept Ethereum and stablecoins. Investable assets will eventually include other cryptocurrencies and fiat payment gateways over time. After the initial focus on crypto, holdings in the fund will expand and become asset-class agnostic and even include traditional securities like stocks and bonds.

An initial investment strategy CivFund will employ focuses on decentralized liquidity provision, specifically for concentrated liquidity protocols like Uniswap v3. This is inspired by the work of Michael Neuder, Rithvik Rao, Daniel J. Moroz, and David C. Parkes of Harvard University, "Strategic Liquidity Provision in Uniswap v3." They show three different strategies for liquidity providers:

- **Proportional** – to the probability of landing in a certain α bin within the target price range
- **Uniform** – over the target price range
- **Optimal** – constructed over the set of α bins for a specified set of consecutive bins, B: 230X more utility than providing uniform liquidity.[8]

[8]Neuder, M., Rao, R., Moroz, D. J., & Parkes, D. C. (2021). Strategic Liquidity Provision in Uniswap v3. *Harvard University archive*, p. 1-2.

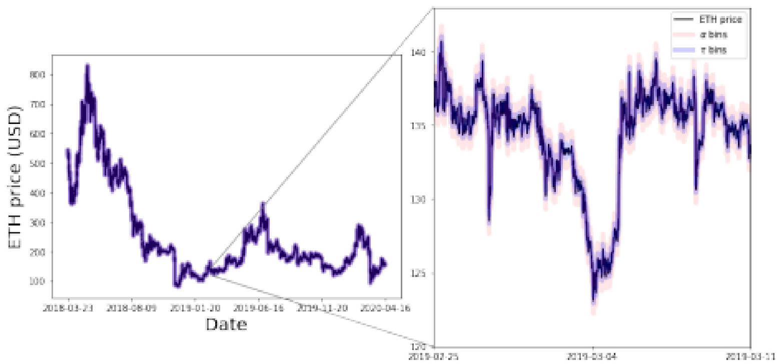


Figure 11: The optimal τ-reset strategy for $\tau = 0.5$ backtested with the historical Ethereum price data. The red lines show the width of the α bins at each time step and the blue lines show the width of the τ bins. With this strategy, the provider earns on average 230x more utility compared with providing liquidity uniformly across the range of price bins (Uniswap v2 allocation).

Theory back tested against Ethereum, March 2018 – April 2020.[9]

Upon investing in CivFund, investors receive fund-tokens representing their share of the pool at entrance, similar to how Uniswap v2 tokens are minted to represent the provider's position in a pool.

Investors save on fees by pooling assets and taking advantage of CivTrade's low gas fees with others. They also benefit from automation, diversification, and constant improvement when compared to copying the strategies and implementing them individually.

CivFund will **strategically** be **rebalanced** when gas fees are low and profit opportunities high, saving investors the time and energy required to research market opportunities while protecting them from the risks of impermanent loss and market timing.

Risks will be **hedged** so as to make strategies employed fully market-neutral, not only by tapping into multiple positions but by diversifying across different token pairs and DEX platforms as well. CivFund will also use the most suitable risk management tools like derivatives and delta hedging to accomplish this. Risk management helps reduce value-at-risk even in extreme market conditions.

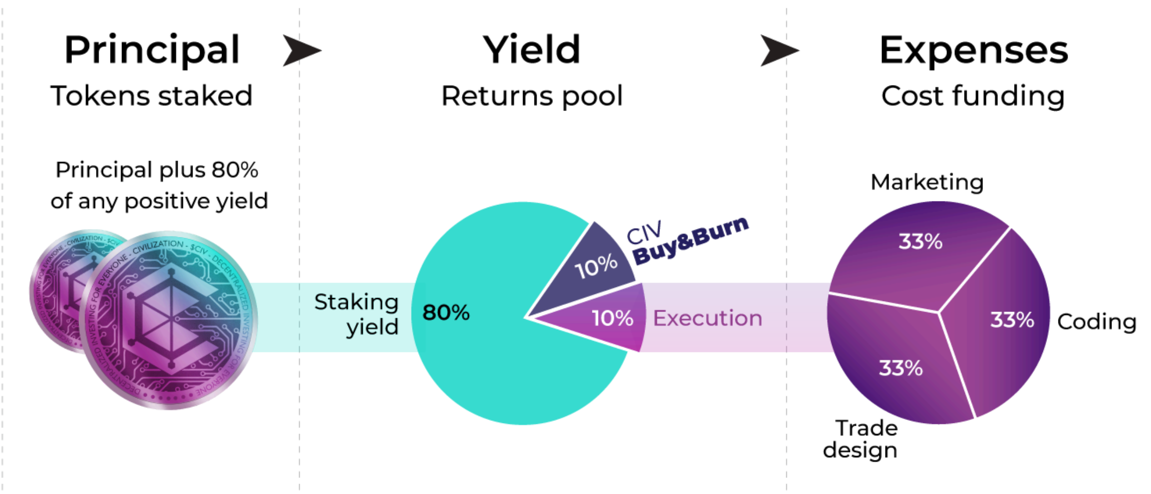
CivFund will provide **liquidity** to the greater market, a win-win for all, bringing smoother and cheaper trading for everyone. Each investment pool gradually builds fees while naturally reducing the price impact of trades, benefitting both the individual investor and the broader DeFi world.

Harnessing the power of **compound interest**, CivFund will automatically reinvest yield back into the fund until the investor exits, eclipsing Uniswap v3 and its limitations.

[9] Ibid.

CivFund will not require any active management by the investor, delivering them peace of mind while reaping the rewards of the fund without any unnecessary risk associated with trial-and-error in continuously evolving markets.

CivFund's **fee structure** will ultimately be subject to Civilization DAO vote but is currently proposed as a 20% exit performance and no management fee. Half of this fee will be allocated to buying and burning $CIV tokens; the other half will be reinvested back into the community, funding expenses it has.



Transparent allocation of rewards:

- Investment returns automatically reinvested for maximum compounding
- At exit, investors receive 80% of returns plus the initial tokens staked
- 20% is kept as performance fees: half is used to buy and burn $CIV, half for execution costs.

a. Strategy selection

CivFund will adopt automated investment strategies built by traders in the Civilization community that have been back-tested and operationally verified. Newly adopted strategies are classified according to risk-reward ratio, correlation to market, tenure, and frequency of trades. Initial strategies include:

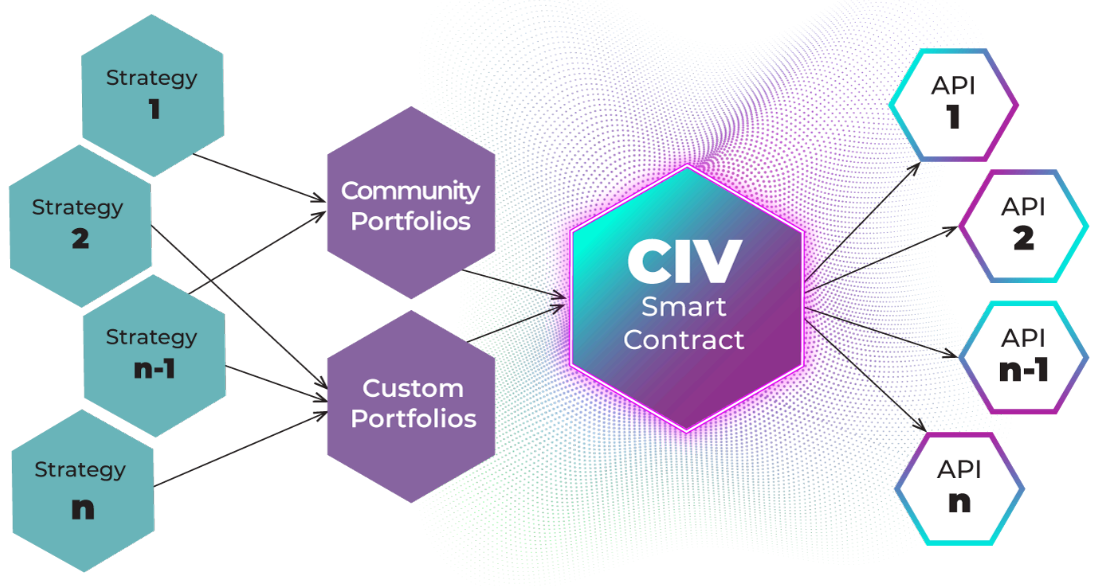
- **Liquidity mining** – hedging impermanent loss and automating rebalancing while earning fees from liquidity provision – superior returns with low correlation to the market.
- **Arbitrage** – exploiting discrepancies across different exchanges, triangular arbitrage, or any other type of risk-free strategy, utilizing flash loan facilities for traders.

- **Trend Following** – using technical analysis to enter trending markets without a fixed view of where the market should go or in which direction. The aim is to codify an accurate system to determine and follow the trend.
- **Swing** – taking advantage of market oscillations. Purely based on a technical approach, these are helpful in non-trending markets as price swings back and forth.
- **Scalping** – placing short-term trades around small price movements. Although considered unsustainable in TradFi due to high transaction costs, they have the potential to be profitable with trades on CivTrade, where fees are earned rather than paid, building upon the liquidity mining strategy in UniSwap v3.

Each new strategy must be seeded and bench-tested prior to adoption. For security, each strategy can only exchange assets with the restricted set of relevant smart contracts.

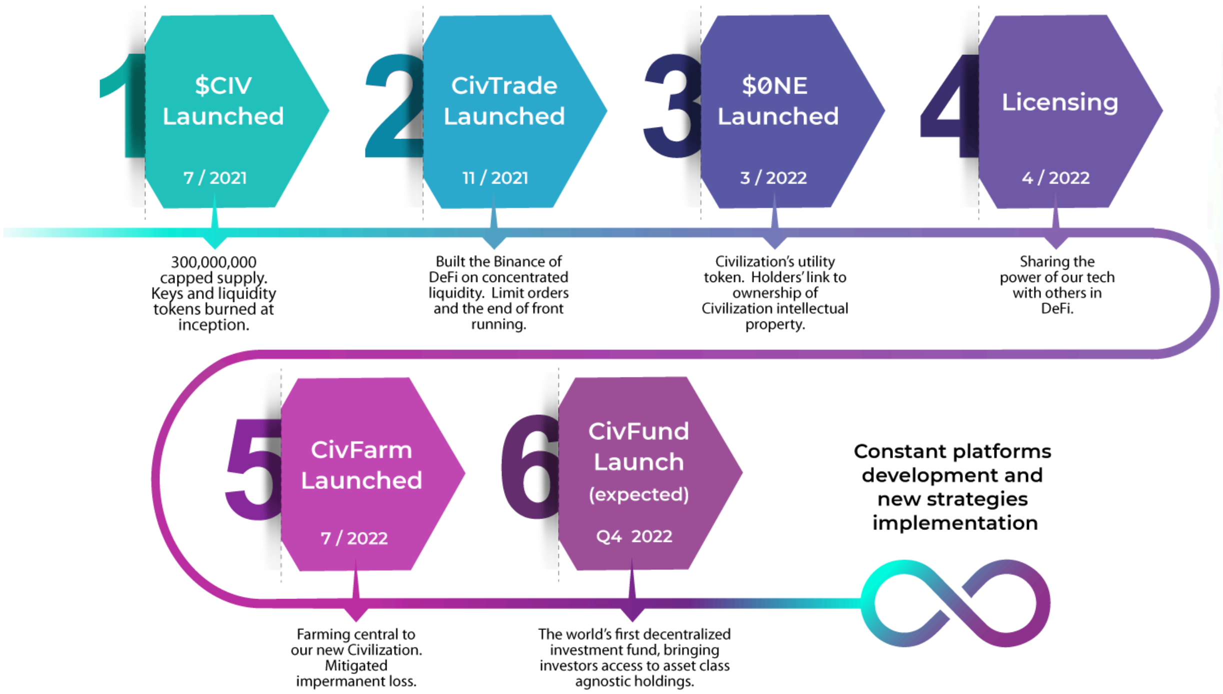
b. Portfolio Composition

Strategies will be packaged into CivFund portfolios, ranging from high growth to zero risk. "Community portfolios" will be the top 10 portfolios built and voted by the DAO and will change from time to time. Traders or investors will be able to create custom portfolios themselves, tailored to their vision or needs but still within the outlined risk framework.



Civilization will make every effort to realize the current vision of CivFund, but it is subject to change pending development and DAO vote.

2.3 Our roadmap



With the launch of CivTrade and CivFarm, we are now **working towards the launch of CivFund**. We are seeking talented traders, strategists, and developers to build this dApp and its decentralized infrastructure. Ambitious as this may seem, we are confident we will realize our vision through our community working together.

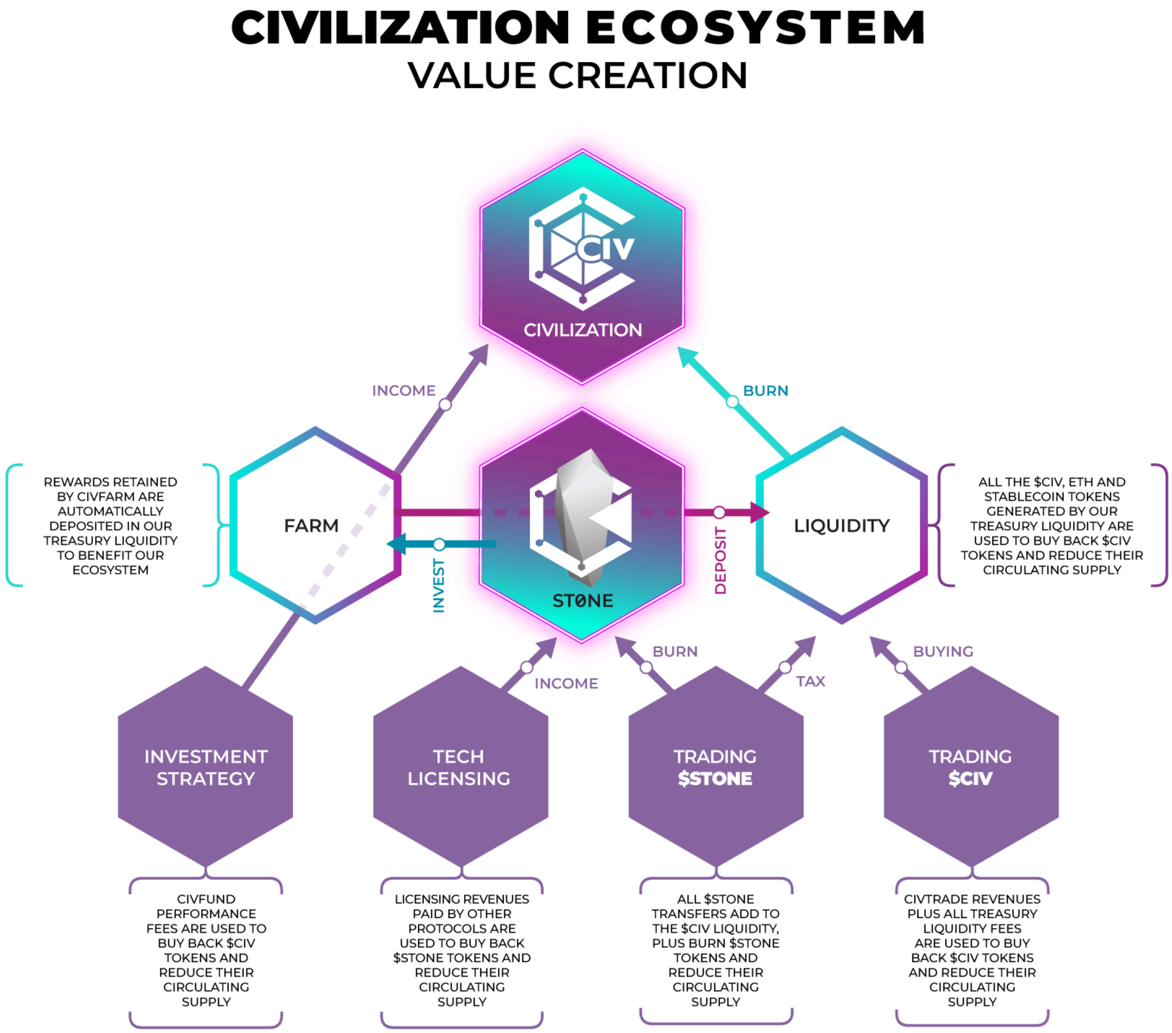
Traders and developers, please note the proposed performance fee structure of CivFund and contact us if you are interested in finding out more information about joining us!

Long-term, **the sky's our limit**. There are already many ideas floating around our community, from leveraging NFT technology to give aspiring artists a place to mint their art to developing our own video game, as well as contributing to select charities. Ideas are always welcome: our community embodies its democratic ideals when deciding how to best achieve its goals.

3. Ecosystem tokenomics

Civilization has two tokens, each with its own distinct purpose and utility.

The graphic below shows how all parts of the ecosystem work to create and bring value to $CIV. With Stone as the beating heart, each tile is an organic part of a mosaic dedicated to value creation.



- **Farm**: profits from CivFarm are automatically deposited into our treasury to benefit our ecosystem.
- **Liquidity**: all $CIV, ETH, and stablecoin tokens generated by our treasury liquidity are used to buy back and burn $CIV tokens, reducing their supply.
- **Investment Strategy**: CivFund performance fees are used to buy back and burn $CIV tokens, reducing their supply.
- **Tech Licensing**: licensing revenues are used to buy back and burn Stone tokens, reducing their supply.

- **Trading Stone**: all Stone transfers add to the $CIV liquidity and burn Stone tokens, reducing their supply.
- **CivTrades**: CivTrade revenues and all treasury liquidity fees are used to buy back and burn $CIV tokens, reducing their supply.

3.1 $CIV Civilization token

Ethereum (ETH) contract: *0x37fe0f067fa808ffbdd12891c0858532cfe7361d*
Polygon (MATIC) contract: *0x42F6bdCfd82547e89F1069Bf375aa60e6c6c063d*

$CIV is the project's store of value. It launched on July 31, 2021, with exactly 300 million tokens at genesis. At launch, it was exclusively on the ERC-20 Ethereum blockchain, but it is now also available on Polygon and a growing number of centralized exchanges.

$CIV is **non-mintable** and based on the OpenZeppelin standard smart contract. $CIV's smart contract has been verified by Etherscan and audited by MythX, as well as Certik. There is **no tax** on $CIV transactions.

The entire initial token supply of 300,000,000 was committed to Uniswap v2. The keys to that pool were **burned to avoid any risk** of hacking or rug pulls. Even if the deployer wallet was somehow hacked into, $CIV would be safe from rug pulls and other scams.

$CIV is **deflationary**. $CIV is burned with product revenues, purchasing it on the open market and sending those tokens to a dead wallet. Listing services like CoinMarketCap and CoinGecko then update the total supply of $CIV to reflect the new supply. Burns are currently done manually but will eventually be automated. They are verifiable via Etherscan.

Holding $CIV is best thought of as a gateway where individuals can pool together with others to collectively and passively access the world of decentralized liquidity provision. It also signifies active participation in our community that champions decentralized finance with the democratization of the financial world as its ultimate goal and passion. It does not confer automatic use of or participation in Civilization's dApps, nor is it a requirement for the same.

3.2 $0NE Stone token

Ethereum (ETH) contract: *0x73a83269b9bbafc427e76be0a2c1a1db2a26f4c2*

Stone ($ØNE – a zero, not a letter) is the utility token of the Civilization ecosystem. Current utility includes sharing in the ownership of Civilization's intellectual property, payment for Civilization utility NFTs and items at civstore.com, donating to charity, participating in the governance of CivFarm, and buying credits in our game when released.

Stone's massive total supply is capped at 1 quadrillion (1,000,000,000,000,000). 20% was minted at launch; half of this is locked for liquidity pools and the other half for distribution to IDO investors. The remaining 80% is reserved exclusively for CivFarm.

$ØNE has a 4.5% transfer tax that was determined by DAO vote. It will decrease over time, with the intention of rewarding long-term holders. 50% of the transaction tax is allocated to burn $CIV and 50% to burn $ØNE.

3.3 Utility NFTs

One of the most innovative features of CivFarm is the ability to **stake NFTs**. To help facilitate this, we created a special collection of NFTs with different staking yields. The first collection is the **NFT Elite Emerald 2000**, named to celebrate the achievement of 2000 token holders and the launch of our new products. There are only **500 NFT Elite Emerald pieces minted**, all available on OpenSea. Five percent of the annual Stone supply minted by CivFarm is allotted to rewarding NFT stakers. Additional utility NFTs will be launched in the future.

4. Community ethos

We are a community rooted in democratic ideals that aspires to become the meeting place for all who are like-minded and want to transform the financial world.

4.1 Principles

We are a collection of traders, developers, and marketers building the world's first fully decentralized investment fund, a self-governed financial system; we are the intertwining of these three streams into one united community.

We are guided by the following principles:

- **Anonymity** – but not a lack of accountability, as far as practically enforceable.
- **Respect** – any idea is welcome so long as expressed with respect.
- **Focus** – we endeavor to maintain laser-sharp efficiency on tasks along the way to actualizing our vision.

From these principles and the ideals we are rooted in flow our ethos:

- **100% community driven.** We are community-centered without any direct personal lock-in or control. Initial liquidity has been burned so that no one entity has admin interest or special rights. Decisions are made by the community via DAO governance.
- **DeFi for everyone.** We are at the service of as many people in the world as possible. There is a minimum required investment of zero, and the technical barrier to entry must remain as low as possible. We are committed to offering ease of use via a simple interface and reward system. Civilization must be understandable so that anyone can explain it within 5 minutes. We will constantly evolve and improve through community input.
- **Value focused.** Any trading opportunity yielding high daily returns can be pursued anywhere within the ETH ecosystem, generating market-neutral, absolute total returns: DEX Liquidity provides a great initial opportunity for this. There can be no guarantee of any specific return, but averaging out should target a clearly stated objective of investor return per year, with clear and transparent costs and fees.
- **Automated Artificial Intelligence.** We use smart contracts that implement trade ideas completely autonomously. No person or entity can have special permissions to change this. The ecosystem's wallet must be impenetrable from the outside and untouchable from the inside, protecting against the risks often faced by other DeFi projects. The auditing and vetting of our code form an integral part of who we are, ensuring long-term ecosystem success.
- **Stability and equilibrium.** $CIV may have initial price swings. After our ecosystem reaches mass adoption and CivFund, in particular, has an established track record of returns, price stability will organically follow: if the token value should halve, a 10% a week return would become 20%, theoretically attracting more capital and causing the price to return to equilibrium.
- **Mindfully generous.** Our vision of democratizing finance demands that part of the yield from our ecosystem is given back for social benefit: a portion of our ecosystem's yield is set aside for the benefit of those who are less fortunate. We champion sound investment practices for the general benefit of society. Any income our ecosystem generates must first be used to ensure Civilization's long-term viability by funding the development and improvement of our technology. Funds that are not required to achieve this will be used to fund other public goods and projects as decided by DAO vote. Civilization governance will not allocate funds to any team or individual who does not commit itself, when using the funds, to the principles outlined in our Constitution.
- **Open innovation**. Civilization, especially CivFund, is based on new products and trading ideas that can be conceived of at any time, contributed, and vetted based on

systematic expected performance analysis – anyone can have their own projects implemented and raise capital for them based on automated asset allocation. Lack of funds should not be a barrier for brilliant people and traders from benefiting themselves, our community, and the world. In order to facilitate making the most widely used technology, we intend to integrate with legacy technology systems to the greatest extent possible without sacrificing the decentralization of Civilization. Civilization governance will not enact changes that compromise its ability to do this.

4.2 Organization

We organize internally into teams called "Tribes" to execute our vision in line with our principles, as well as to facilitate growth and value creation in specific areas within the overarching community. Initial Tribes include:

- **Development:** builds the tech required to create and maintain dApps
- **Marketing**: promotes Civilization's products and brand through strategic partnerships, advertising, social media, etc.
- **Currency**: manages relationships with exchanges and monitors liquidity across the board
- **Branding**: creates content to bolster the presence of Civilization in various spheres
- **Community**: develops, grows, and coordinates all of the various Civilization communities
- **Warriors**: general support to other tribes, acts as customer service, and develops NFT-related initiatives
- **Creative**: manages Civilization documentation and content, KYC, and compliance
- **Trading**: develops and deploys investment strategies used in the Civilization ecosystem, particularly in CivFund
- **DAO**: coordinates DAO initiatives, manages voting, and facilitates implementation of decisions

5. Conclusion

We have set out to actualize the democratization of finance and see ourself as a major player in ushering in a new financial civilization to that end. Join us and help make the financial world of tomorrow become the financial world of today!

Decentralized Finance for Everyone
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