



Abstract

At UrbanChange, we care about our communities, our homes, and our future.

While every community is different, we all have the same goals: economic and social prosperity. With Web3, the democratization of technology empowers us to lay claim to our economies and participate, influence and enjoy the fruits of our labor.

We envision vibrant, inclusive, and connected communities, where local people drive local prosperity in their cities. Communities where growth and opportunity are nurtured by shared ownership, and residents, organizations, leaders, and local governments work together to foster engagement and create a sense of belonging.

UrbanChange gives local community leaders the tools to lead positive change in any community, in any city. With UrbanChange, involvement starts with everyday acts of engagement and builds towards widespread participation in local initiatives.

The UrbanChange protocol uses a Dual-Token model for each local community, powered by a unique Proof-of-Stimulation mechanism, where civic engagement is delivered, social life flourishes, and a more robust circular economy is created.

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1. Introduction to Community Currencies

The concept of a community currency – to function as a secondary medium of exchange, store of value, and unit of account – has been around for a while. Community currencies have attracted attention from [academics and policymakers](#), in part due to urbanization trends. Another reason is the community coin's unique abilities to produce and retain independent wealth within communities, drive engagement, and create a sense of belonging. **According to [American Express](#), an average of 67 cents of every dollar spent at US local businesses stays in the local community.** Therefore, it is clear that these currencies offer untapped potential to benefit local stakeholders, facilitate counter-cyclical growth cycles, and secure the local community's longevity, capital, and well-being.

The History, in a Nutshell

We use different forms of currencies in our daily lives, not only when we're abroad, but also through air miles, loyalty cards, and shopping vouchers. Community coins are another form of currency that is complementary to the nation's fiat currency. While some community currency projects, like the [Brixton Pound](#), were able to utilize their unique coins, most couldn't – due to inadequate infrastructure, technological limitations, public unreadiness, and lack of economic incentives. And so, many projects proved to be unsustainable and failed. One example is [Colu](#), which in 2018 set out to leverage new crypto capabilities and engage residents through the use of local cryptocurrency incentives. They introduced the [CLN Network](#), whose aim was to drive engagement with the local currency and generate shared success. Design faults, combined with significant municipal distrust of blockchain technology, meant cities resisted its adoption. As a result, the company returned the funds to CLN investors and launched a non-crypto city coin model instead. A more recent example is the [MiamiCoin](#), which lost 95% of its value in a matter of months, apparently due to an inadequate tokenomics scheme.

Web3 Currencies

Over the last few years, a growing number of new city coin models and Web3 applications for cities have materialized, some described by Vitalik Buterin in his [“Crypto Cities” post](#). With Web3 gaining traction and DeFi emerging as one of the leading use cases for crypto, the time is right to pioneer a new model for a crypto-based community currency, backed by key learnings of the core UrbanChange protocol team, the global crypto community, and local communities (especially cities). Designed to serve the needs of ALL community members and stakeholders, this model will drive strong civic engagement and local economics.

This new model will spur innovation in cities and create new financial and governance models that benefit the hyperlocal ecosystem while strengthening the bonds within local communities.

2. The Local Community Prism

Every local community aspires to social well-being, financial prosperity, and longevity. Stimulation of the local economy particularly is known to benefit communities by creating stability, increasing sales tax revenue, job opportunities, and attracting visitors and tourists. To attain these goals, community leaders set a range of objectives they wish to promote and launch initiatives to achieve them, such as supporting local businesses, accessible education, and sustainable modes of transportation.

Funds are allocated towards local initiatives and marketing efforts, aiming to gain exposure for the initiatives and get residents to act (it's vital that residents get on board with these efforts, actively participate and play their part in the local ecosystem). However, as history has shown, initiating significant civic engagement can be challenging. An additional key layer, to reach both the goals and the must-have civic engagement, is the necessity to deploy easy-to-act-on, impactful, and measurable means. Finally, to stimulate the local economy, communities strive to retain the funds used in these processes and keep them circulating locally as much as possible.

In light of the core principles above, the following attributes are the cornerstones of the UrbanChange protocol as it serves local communities:

Shared Ownership and Actionable Tools. To drive impactful civic engagement, residents must own a stake in the initiatives and the currencies. Their voices need to be heard and they need to count for something. Residents must have a chance to act, participate, and engage with local initiatives in a simple, practical way so they can actually influence community life for the better.

Incentive Mechanism. To achieve robust engagement, however, residents need to be incentivized. Though incentives can be employed in multiple forms, the most effective one, as proven for example by Colu's newest platform, is a local coin – representing a form of incentive that everyone can relate to, and which can be used for daily transactions.

Stability and Locality. Funneling funds so they stay local to stimulate the local economy, can be achieved by employing a stable local coin. By its stable nature, the coin will be considered a viable currency for everyday spending purposes. To keep it local, the coin must only be spent at whitelisted local businesses, making it inherently measurable in terms of its usage and impact.

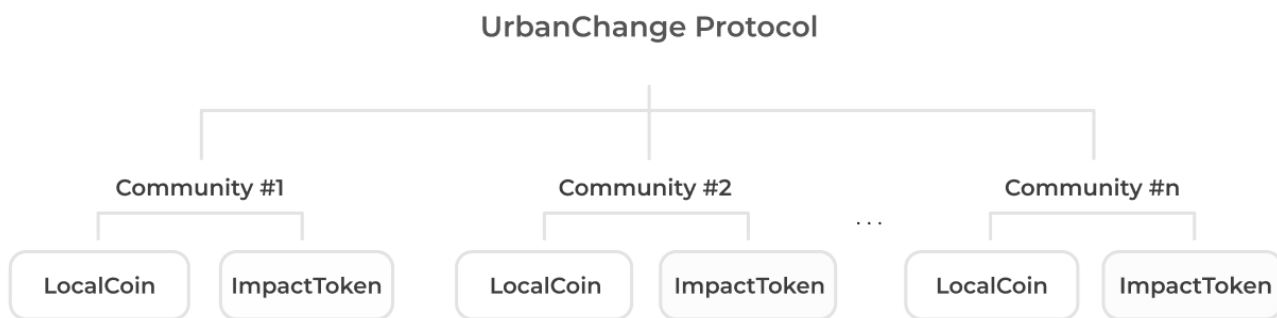
3. The UrbanChange Protocol

The UrbanChange protocol has been designed to deliver the vital civic engagement goal – underpinned by local coin circulation and a governance token.

Driven by a Dual-Token model and a Proof-of-Stimulation mechanism, the protocol enables local community leaders to generate local tokens and launch initiatives designed to produce tangible participation. The model prompts residents to act and earn the 2 types of tokens, for their engagement with local initiatives and for stimulating the local economy.

3.1. The Dual-Token Model and Proof-of-Stimulation

The protocol brings together a global network of local communities. The Dual-Token model deploys 2 types of tokens for each local community:



LocalCoin

A daily-use coin

Backed by a stablecoin

Accepted by whitelisted local businesses

Unlimited minting

ImpactToken

Represents the community's engagement and prosperity

Governance community token

A demand-driven crypto coin, traded on the open market

Capped supply

The model starts off with a goal-oriented initiative which gives residents the opportunity to earn LocalCoins – the primary incentive for residents to take action that the community chooses to promote. The LocalCoins, minted per initiative, are backed by a stablecoin (USDC) – making them viable for everyday transactions – and residents use them to purchase goods and services at whitelisted local businesses (C2B transactions). The businesses, in turn, can also use these LocalCoins to buy goods and services from other whitelisted local vendors, thus increasing the circulation of the coin (B2B transactions).

These actions – the C2B and B2B transactions – are the actual realization of funds circulating locally, fulfilling the concept of a community currency used as a medium of exchange.

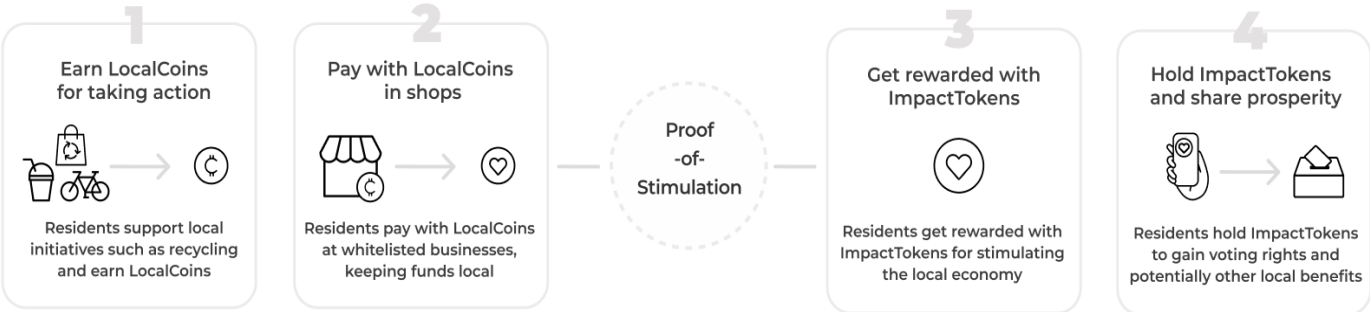
The protocol uses the event of LocalCoin circulation to trigger the **Proof-of Stimulation** mechanism by which ImpactTokens – the second token under the Dual-Token model – are granted.

ImpactTokens are awarded to the community vault and the community member (i.e. a resident or local business) who triggers the Proof-of-Stimulation by spending LocalCoins. This, therefore, supports local businesses and the local economy because funds stay local. The ImpactTokens represent an even higher level of civic engagement as they are rewarded for secondary action. ImpactTokens also enable thriving communities to confer ownership by granting voting rights and sharing their prosperity with their members.

By rewarding residents with ImpactTokens, in return for spending LocalCoins, the protocol facilitates economic stimulation – thus creating even stronger engagement.

Here is a straightforward representation of the model from a resident perspective:

The protocol rewards residents with LocalCoins for their participation in initiatives, and with ImpactTokens for using LocalCoins and stimulating the local economy.



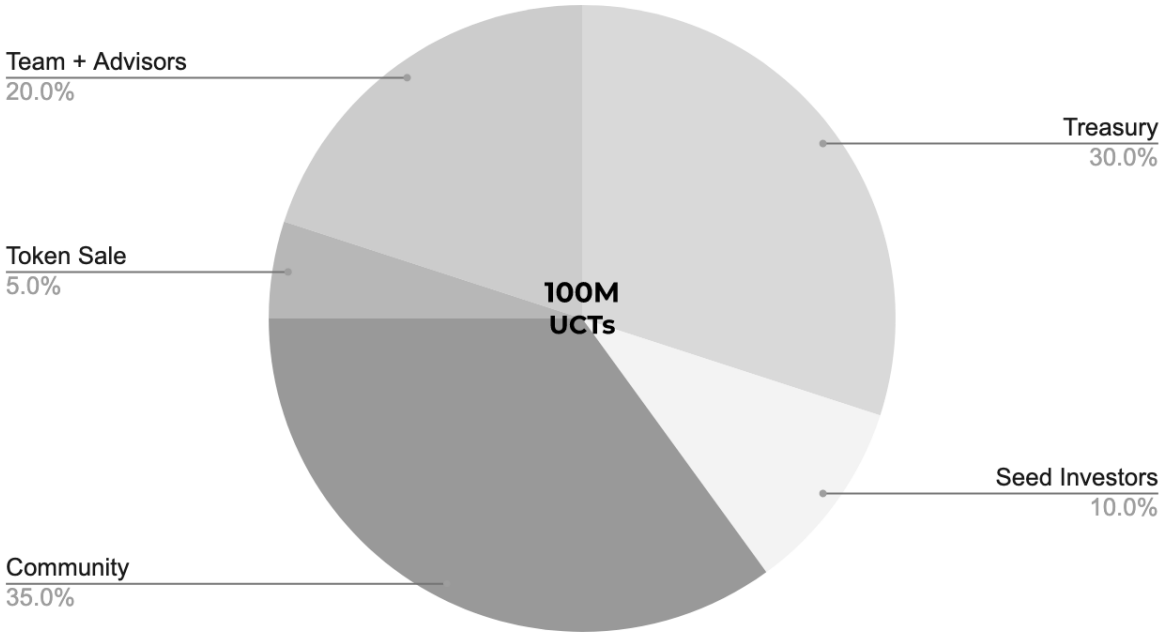
The Proof-of-Stimulation mechanism, underpinning the Dual-Token model, creates a cyclical reward-stimulation-reward sequence and potentially streamlines a hyper-loop of engagement.

4. The UrbanChange Token (UCT)

In the centralized world, organizations, such as ICMA, allow city mayors to share information, connections, and ideas while learning about new technologies that improve city life. The concept behind the UrbanChange token is to create the Web3 version of such collaboration, enabling local communities to actively influence the ways in which cities and other communities use the protocol, and participate in its development direction.

The token is distributed with a capped supply of 100 million tokens in circulation.

4.1 Token Distribution



| Segment | Portion | Release Schedule |
|-----------------|---------|---|
| Community | 35% | Community incentives, grants, bounties. 3.5% yearly (linear over 10 years) |
| Token Sale | 5% | At least 5% for public sale. Lockup of 12 months for every new strategic investor |
| Team & Advisors | 20% | 18 Months cliff from TGE - get 3.75% of total tokens, then - monthly vesting over 2.5 years. Including 5% future team |
| Treasury | 30% | Including strategic investors (12 months lockup), liquidity |
| Seed Investors | 10% | 18 Months cliff from TGE - get 3.75% of total tokens, then - monthly vesting over 2.5 years |

4.1.1 Community Incentives

As demonstrated in the token's distribution scheme, the protocol is designed to use a large portion of the UCT supply to drive the desired behavioral change. It does so by incentivizing local community leaders – the core contributors steering their local community toward success. Success in the local community is mainly measured by the protocol's core objectives: residents' participation in local initiatives and the rate of local economic stimulation. The success of a local community affects the global UrbanChange network of communities as well. Hence, as they thrive, community leaders will have a higher say in governing the protocol by holding more UCTs, thus strengthening the network. As the protocol evolves and future governance decisions are made, the rewarding actions and rewarded players will naturally evolve as well.

4.2 UCT Usage

The UCT is the protocol's governance token. It is also used to set up local communities. As the network evolves and more local communities join the protocol, more UCT holders will govern it and the role of the token will evolve.

Governance

The governance function, which lies at the very core of the UrbanChange protocol, allows those who hold UrbanChange tokens to share ideas, propose adaptations and vote on proposals regarding the protocol. Each token represents one vote, so the more tokens held by the voters, the greater their say in the protocol's evolution.

Local Community Setup

Local communities can join the protocol and be part of its evolving ecosystem. Holders of UCTs can set up a local community on the UrbanChange protocol by depositing a total amount of 5,000 UCTs into the community's vault (subject to future governance decisions) and becoming local community leaders.

5. The Local Community

The UrbanChange protocol was conceptualized to serve local communities. It is designed to provide community leaders with tools to lead positive change in their environment, by utilizing the Dual-Token model for each community, underpinned by local initiatives.

The protocol is a global network of local communities, and as such, each community is a vital element.

**The following description of local communities, in particular LocalCoins, ImpactTokens, and Proof-of-Stimulation, serves as a blueprint that may be adjusted based on future governance decisions and on laws and regulations applicable to the communities. Compliance with all applicable laws and regulations is the sole responsibility of the users of the UrbanChange protocol and UrbanChange assumes no liability whatsoever in this regard.

What Makes a Local Community?

It starts with a shared urban space / a geographic common ground, a neighborhood, a city, a district, and even a university. Another central pillar is local economy infrastructure – where local businesses are core agents that create job opportunities, keep money circulating locally, and contribute to the community's prosperity. And, crucially, people: community members with a shared vision, who care for the present as they do for the future, and care enough to do something about it.

Local Community Players

- **Community Leaders.** Community leaders may be a municipality, a local non-profit organization, a committee of engaged residents, etc. Their role is to establish the community by funding its setup, onboarding local businesses, launching initiatives, and more. As depositors of UCTs, they will participate in the protocol's governance processes.
- **Community Members/Residents.** A community member may be a resident, a visitor, a tourist, etc. They may choose to participate in an initiative by taking action that earns them LocalCoins. They can spend their LocalCoins at local businesses, an action which may earn them ImpactTokens.
- **Whitelisted Businesses/Service Providers.** A whitelisted business or service provider is situated in the community space and is listed to accept LocalCoins as a form of payment. The vendors accepting LocalCoins can pay other vendors for goods and services using LocalCoins, and subsequently may earn ImpactTokens.
- **Organizations/Initiative Sponsors.** Initiative sponsors may be a municipality, a local employer, a non-profit organization, or any entity that wishes to sponsor initiatives for the greater good of the community, etc. Their role is to fund initiatives.

5.1 Community Setup

A local community can be set up by many forms of community leaders, for example, a municipality, non-profit organization, association of local businesses, or even a committee of engaged residents.

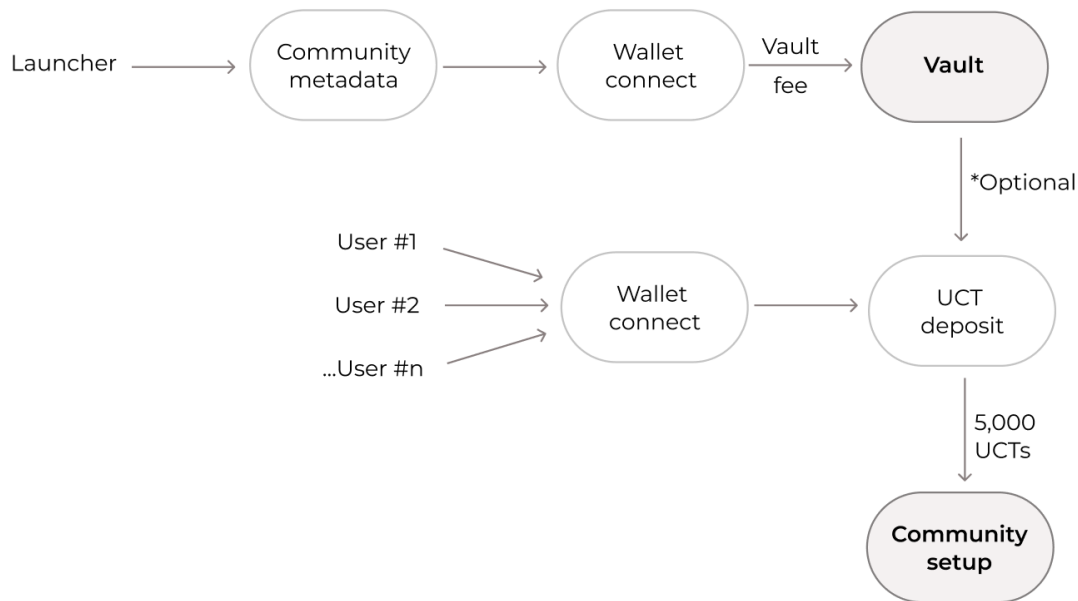
5,000 UCTs are required to set up a local community (subject to future governance decisions).

5.1.1 How to Set Up a Community?

The flow involves launching a vault, and individuals or organizations depositing UCTs into the vault. All those who fund the 5,000 UCTs needed for the community setup will be entitled to local community leadership roles.

1. **Vault creation** – the vault can be created by a “launcher”, who will provide some basic information and pay the vault setup fee.
2. **Vault funding** – once the vault is established, individuals can deposit UCTs to meet the threshold:
 - a. The 5,000 UCTs can be funded by the launcher alone, and/or by other individuals, collectively referred to as community leaders. *Note – the launcher will be considered a community leader only by depositing UCTs into the vault (not by the vault creation action).
 - b. A safe is deployed per each unique deposit of UCTs and the depositor/s is/are set as the owner/s of the safe.
 - c. For the purpose of enabling sufficient time to fund the setup in full, each deposit will be locked for a period of 6 months.
 - i. Should 6 months go by after a deposit is made and the community setup is not completed (the vault is partially funded), the deposit will be unlocked and it can be used at the depositor's discretion.
 - d. At any given moment, before or after the community is set up, the community leader role can be reallocated to others by transferring the ownership of the safe.
 - e. The UCT deposits and respective safes represent the depositor's leadership role in the local community, their potential to receive success-based community incentives, and their share of UCTs used to exercise their rights in the protocol's governance processes.

High-level community setup flows



Once the community is established with its tech stack and smart contracts deployed, the community leaders will be able to onboard businesses to accept LocalCoins as a form of payment, mint ImpactTokens, and launch initiatives to promote social goals using the Dual-Token model.

5.2 Initiatives in the Local Community

Local communities launch initiatives to achieve social and economic goals. An initiative run by local communities is typically a goal-oriented project, with set budgets and clear objectives. With UrbanChange, the initiatives are the starting point of the Dual-Token model, utilizing [LocalCoins](#) to encourage residents to take action towards the desired goal. Put simply, UrbanChange enables community leaders to **launch initiatives** with **actionable targets**, where **rewards are used to motivate** residents to get involved and participate in initiatives with **measurable impacts**.

Communities can use the protocol to encourage all sorts of desirable actions and behaviors, with the potential to be funded and promoted by different entities. For example,

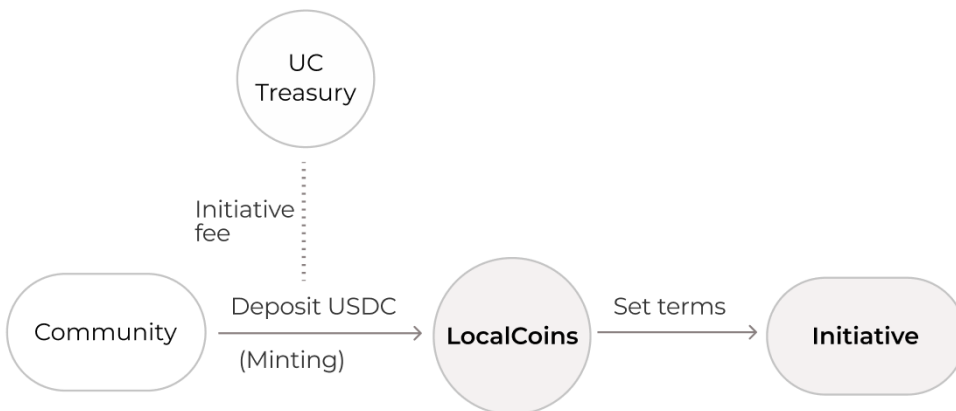
- A municipality may choose to run a “healthy living campaign” to promote daily walks, with a LocalCoin rewarded for each km traveled on foot.
- A foundation may choose to encourage residents to use shared transportation methods to promote a reduction in carbon emissions, with X LocalCoins rewarded per Y number of rides.

- As part of its ESG efforts, a corporation may choose to fund an initiative that facilitates workforce development in underserved communities. Completion of one learning unit is the desired action and the reward is X LocalCoins.

5.2.1 Initiative Setup

The initiative setup includes:

- Funding the initiative: LocalCoins, used as a reward to encourage residents to take action, are minted with the backing of a stablecoin. Depositing USDCs into a vault to fund a specific initiative instigates the LocalCoin minting process.
- Initiative fee: a portion of the funds' allocation will go into the UrbanChange treasury. The fee rate (10% or 17%) is subject to the state of the community's ImpactToken (and to future governance decisions).
- Setting the initiative's terms: establishing the unique terms and conditions for the initiative – e.g. defining eligible actions for earning LocalCoins, timeframe, earning caps, etc.
 - The minted LocalCoins will be awarded to residents who complete an eligible action.



The Dual-Token Model in Local Communities

5.3 LocalCoins

The objective of the LocalCoins is to incentivize residents to take actions that support essential community goals set via the initiatives, increase everyday local payments and allow funds to circulate locally.

LocalCoins are a stimulus reward that can be used as currency for everyday transactions. Their stable value means they can facilitate fast adoption as a viable currency.

Supply, Value, and Usage

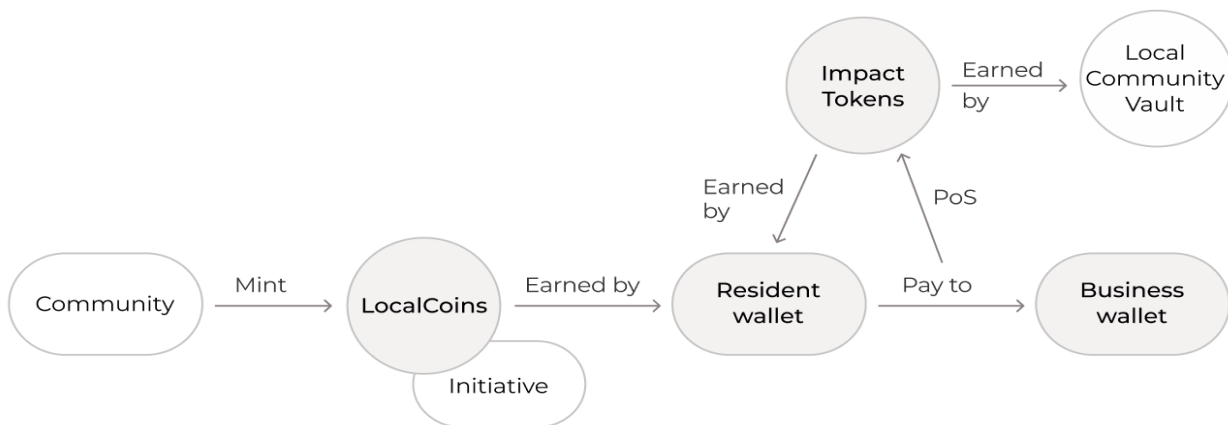
LocalCoins are minted whenever funds (USDC) are deposited for the purpose of launching an initiative. Therefore

1. The LocalCoins are backed by USDC and their initial price is equal to USDC, thus they make up a viable form of payment.
2. Their minting process is unlimited as they are minted per deposit. * Note: the LocalCoins minting process for initiative setup bears a fee.

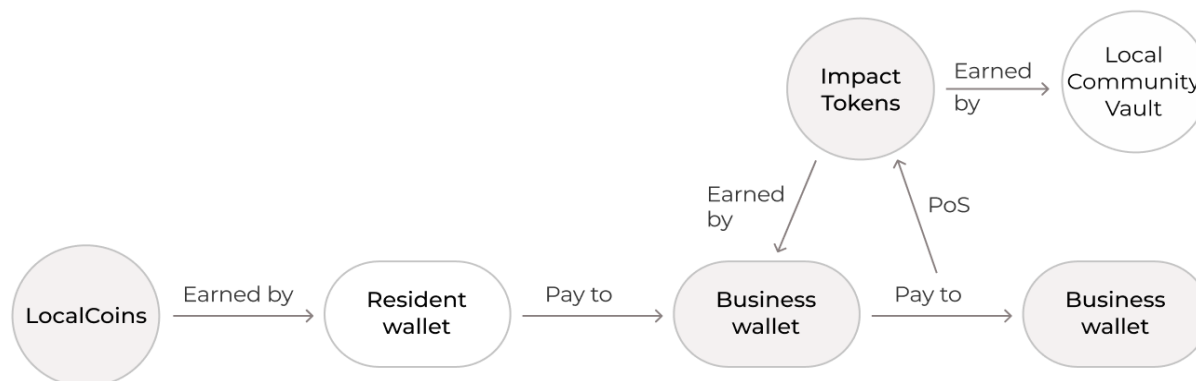
To keep funds circulating locally, the LocalCoins can only be spent at whitelisted local businesses. Payments to businesses with LocalCoins can be made by residents or by other businesses in the community. (B2B payments boost economic activity further by the local circulation of the coins.)

Spending LocalCoins is the event that activates the Proof-of-Stimulation (PoS). The PoS is used to grant ImpactTokens, both to the member who paid with the LocalCoins at a local business and to the community's vault. *This action may bear a protocol fee as well. For additional information refer to the PoS section.

From a resident perspective:



From a local business perspective:



Once deposited, USDCs can be allocated to DeFi protocols with the purpose of generating yield. For example, if 100 USDCs are deposited, 10 are allocated to the protocol (initiative fee), and 90 LocalCoins are minted with an initial value of \$90. If the USDCs are allocated to DeFi and yield an additional 7%, the value of the 90 LocalCoins will increase from \$90 to \$96.3. When those LocalCoins are used for payment, businesses will be paid with coins representing the USDC value (\$90), and the \$6.3 worth of generated yield will be allocated to the PoS mechanism to buy ImpactTokens.

5.4 ImpactTokens

ImpactTokens create local economic stimulus by acting as the secondary reward for community members, incentivizing them to circulate the funds (LocalCoins). ImpactTokens are granted by the Proof-of-Stimulation mechanism when LocalCoins are spent. They act as the local community's governance token and by nature award community members a shared ownership in the success of each initiative and the community as a whole.

ImpactTokens have a triple effect as they represent the local community's prosperity, the community members' hyper-engagement levels, and their stake in the initiative's success.

The tokens are designed to have a capped supply and ultimately be a traded utility token, with their price determined by the free market, based on supply and demand.

5.4.1 Proof-of-Stimulation (PoS)

The Proof-of-Stimulation, activated when LocalCoins are used, is a mechanism by which ImpactTokens are granted to local community members. The ImpactTokens may be bought from the market and distributed to the participants by the PoS mechanism. This means the local community must list the token on exchanges to make them available to the public (and to

the PoS mechanism). However, listing a token is a process that requires resources and, as such, may take time. The protocol facilitates the time it may take by enabling 2 phases of the PoS mechanism.

Phase 1: ImpactTokens are not listed

During Phase 1 the ImpactTokens are not available to the public. The PoS will utilize a predefined amount of ImpactTokens to reward residents and businesses for stimulating the local economy. In this phase:

1. The initiative fee rate is set to 17%.
2. No additional fees will be paid to the protocol.
3. The ImpactTokens have no market-based price.
4. The reward sum will be determined by the PoS, where the number of tokens is evenly split between the user (spending LocalCoins) and the community vault.

Phase 2: Tokens are public

During Phase 2, ImpactTokens are available to the public. The PoS will utilize the yield generated through DeFi. In this phase:

1. The initiative fee rate is lowered to 10%.
2. The tokens' price is determined by the market.
3. $\frac{1}{3}$ of the yield may be used to pay a stimulation fee for the protocol – buying UCTs from the market and allocating them to the UrbanChange treasury.
4. $\frac{2}{3}$ of the yield may be used to buy ImpactTokens from the market, where the number of tokens is evenly split between the user and the community vault.

5.4.2 Supply and Distribution

The total supply of ImpactTokens will be determined and set by the community leaders. The minting process of the tokens will include allocations of the supply to ensure the token's longevity and purpose fulfillment. The tokens may be divided among the following:

1. Community vault: minimum allocation of 10%.
2. Rewards: will be used by PoS during Phase 1 with a minimum allocation of 55%.
3. Exchange: will be used to publicly launch ImpactTokens by setting up LP for Phase 2, with a minimum allocation of 10%.
4. Community leaders.
5. UrbanChange treasury: with an allocation of 3%.

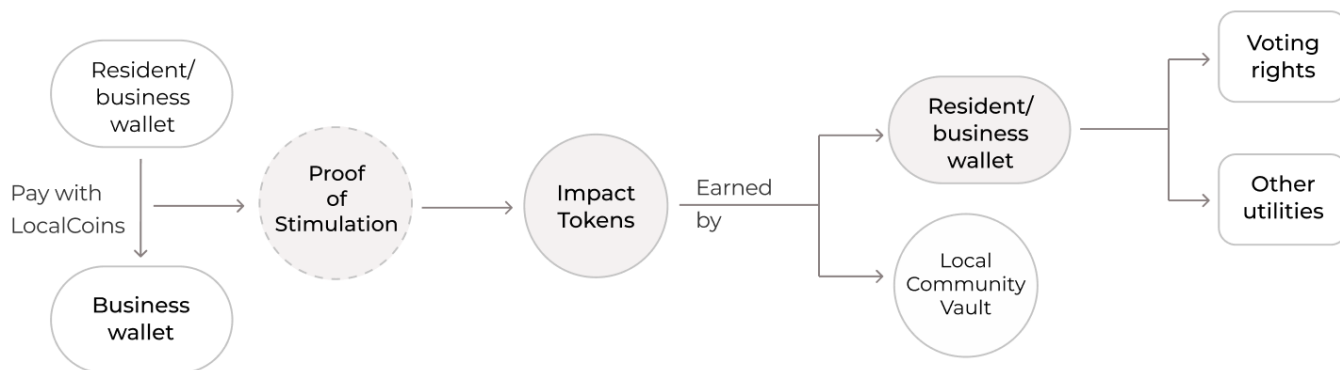
5.4.3 ImpactTokens Usage

Governance

The ImpactToken will function as the local community governance token. Holders of the token will have the right to take part in community decision-making on topics relating to protocol usage, such as determining the requisite criteria for whitelisting a local business or voting on the next initiative.

Additional Utilities

Local communities can also offer additional usage for ImpactToken holders, such as discounted parking, access to special events, unique memorabilia, and so on. These types of utilities connect the Web3 arena with the physical world and have the potential to enhance the adoption of this protocol in diverse segments across the community.



Summary

Major global changes are underway in finance and tech: the Web3 revolution, putting shared ownership and decentralization front and center, the growing discourse on crypto cities, and the spread of urbanization. City expansion is increasing the need for local communities to use new financial models and create civic engagement that drives residents to strengthen their sense of community belonging.

With these seismic changes in mind, we believe that now is the perfect time for the UrbanChange protocol to be introduced to the world. The UrbanChange protocol creates a set of tools and services to support every local community and drive economic and social prosperity to a whole new level.

References

1. People Powered Money
https://neweconomics.org/uploads/files/0dba46d13aa81f0fe3_zhm62ipns.pdf
2. American Express study
<https://about.americanexpress.com/newsroom/press-releases/news-details/2018/Another-Reason-to-Shop-Small-on-Small-Business-Saturday-Approximately-67-Cents-of-Every-Dollar-Spent-at-a-Small-Business-Remains-in-the-Local-Community-11-13-2018/default.aspx>
3. Brixton pound <https://brixtonpound.org/>
4. Colu <https://colu.com/>
5. The CLN network
<https://www.allcryptowhitepapers.com/wp-content/uploads/2018/11/Colu-Local-Network-CLN.pdf>
6. MiamiCoin
<https://www.coindesk.com/policy/2022/05/31/i-dont-push-anything-mayor-francis-suarez-on-miamicoin/>
7. “Crypto cities” by Vitalik Buterin <https://vitalik.ca/general/2021/10/31/cities.html>
8. The civic engagement challenge
<https://hub.beesmart.city/en/strategy/how-smart-cities-boost-citizen-engagement> ;
<https://www.boozallen.com/s/insight/blog/3-potential-benefits-of-government-blockchain.html>
9. ICMA <https://icma.org>

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