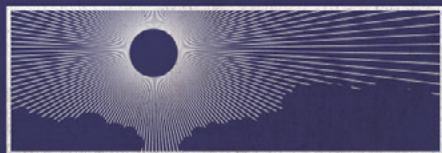


ECO

MANUAL



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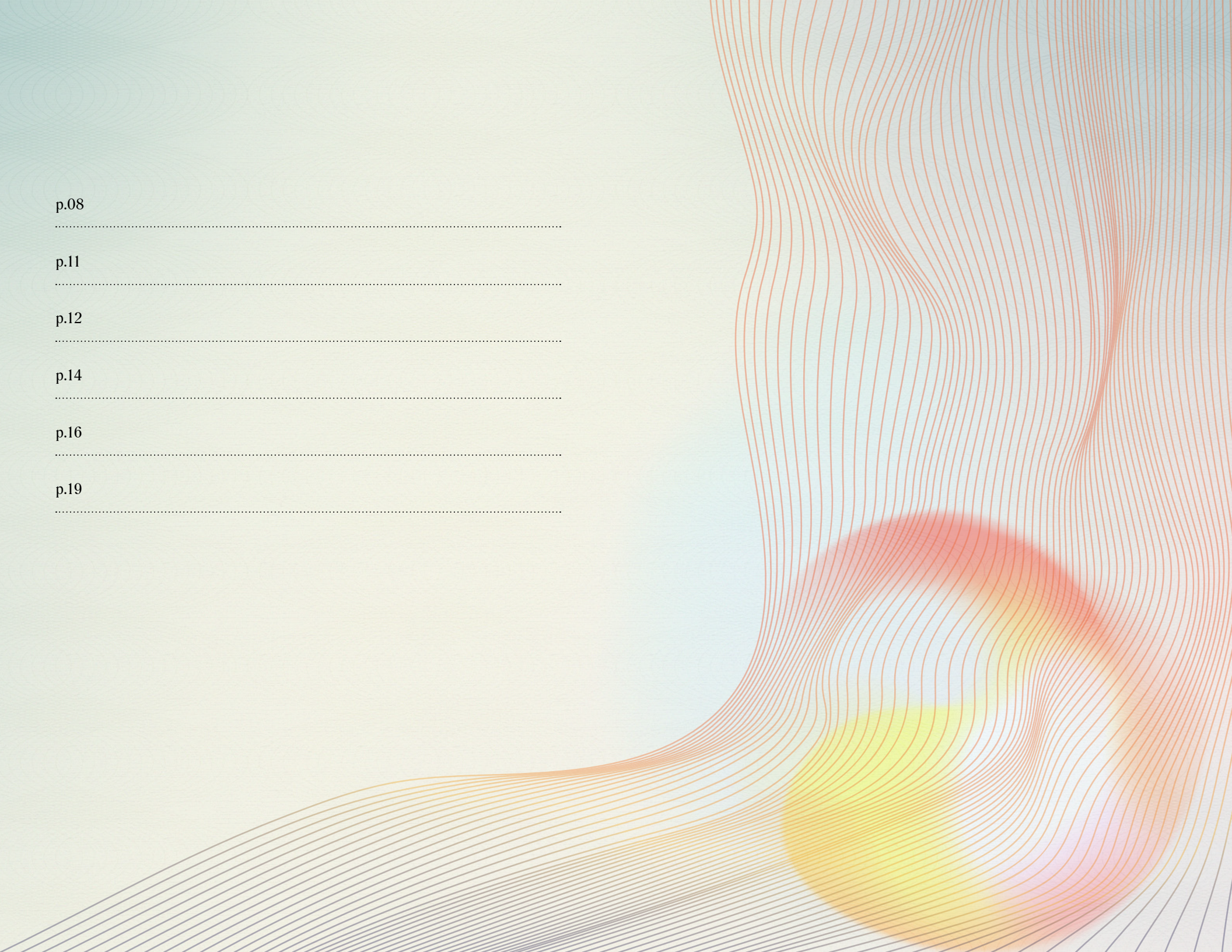
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Welcome, Researcher.

**You made it.
We're happy to have you.**

Begin Here.

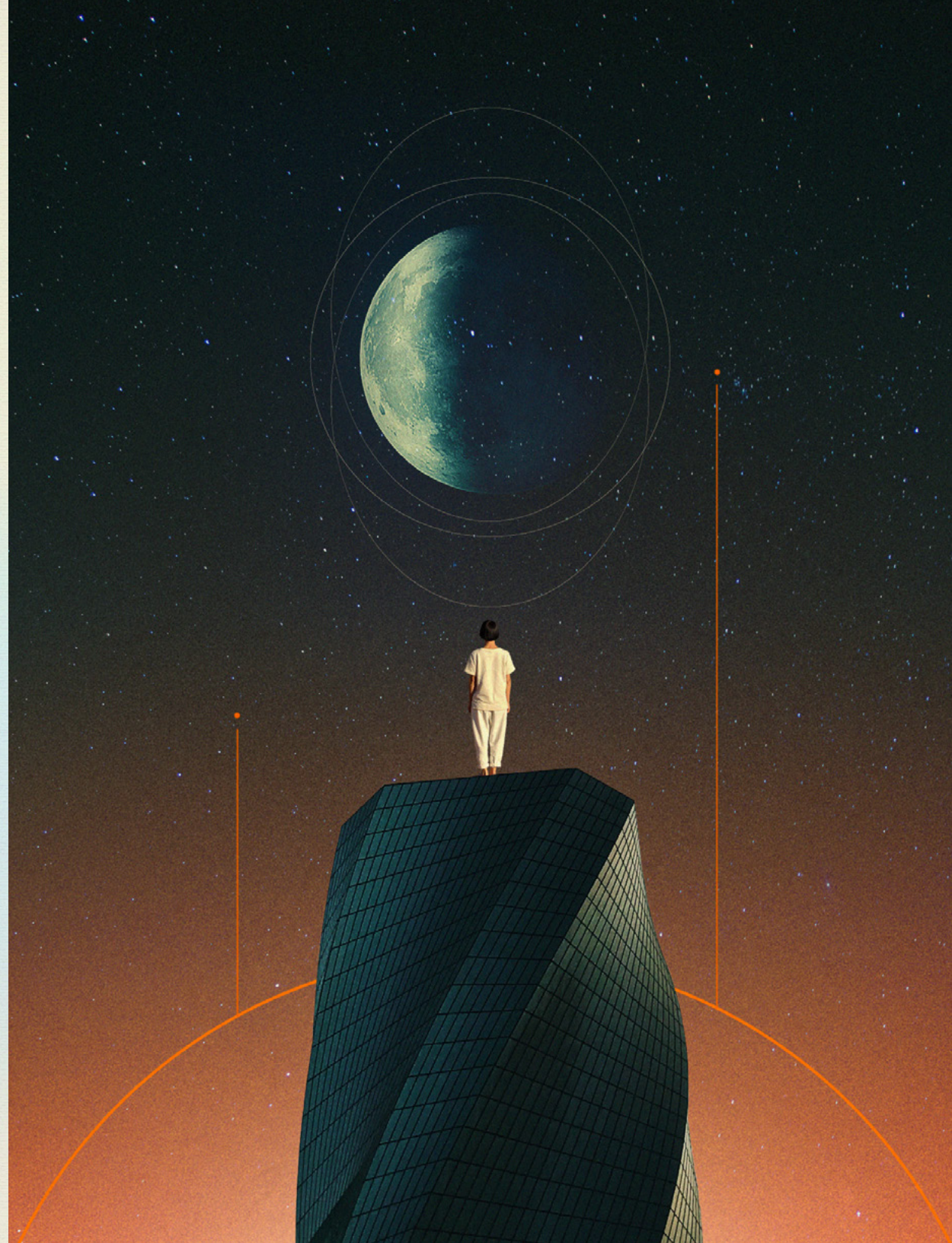
WHAT IS ECO?

Eco is a decentralized alternative to fiat currencies.

It is a cryptocurrency with independent monetary policy, designed to evolve and support a growing Economy.

Eco's design is informed by the following assumptions: Given better economic data and a more transparent incentive structure for governance, it is possible to govern and grow a currency that is digitally-native and more clearly aligned with its users' best interests. A product like this is uniquely enabled by crypto.

In practice Eco is, effectively, a governance framework and a monetary policy toolkit. This Manual explains the framework and how the tools might be used.



TOKEN MODEL

There are two tokens in the Ecosystem: **\$ECO & \$ECOx**

ECO is the base currency designed for transactional usage, with variable supply governed by monetary policy.

ECOx is a secondary token to bootstrap system governance and capital allocation. It has a capped supply that can only decrease over time.

Initially there are 10 billion units of ECO. In this early research phase, ECO is something to play with, and gradually pay with. With good governance and growing adoption, ECO may eventually become a currency to save with as well.

There are 1 billion units of ECOx. Each unit of ECOx can be converted into ECO at any time at an inflation-protected rate (i.e. each unit of ECOx represents a percentage of the ECO supply), and staked ECOx may eventually benefit from transaction fees in ECO. ECOx can only be converted into ECO in a one-way, irreversible exchange.

The formula for ECOx's conversion ratio to ECO is:

$$\alpha_m = (e^{(\beta_c/\beta_i)} - 1) * \alpha_c$$

α_m = ECO minted and returned to the converting party

α_c = The total current circulating supply of ECO

β_c = ECOx being converted by the converting party

β_i = The initial supply of ECOx at network launch

Eco Governance: OVERVIEW

A summary of Eco community governance and monetary policy-making

There are two major governance processes in Eco, which run in parallel: community governance and monetary governance.

In v1.0 community governance begins with token-holder voting. All holders of ECO and ECOx are empowered to vote in community governance. Community governance controls all parameters of the Eco protocol. The system has the capacity to be fully upgradeable to accommodate various states of the future.

Community governance should not be used lightly; it can be used to change any parameter or process in the system, whether technical, economic or fiscal as the community decides. Given this power, the system starts by forcing community governance changes to pass a

high bar: the support of 15% of all voting power is required to send a proposal to vote. From there, a simple majority of votes cast is required to execute the proposal.

Monetary governance is conducted by an elected group of 'Trustees' on a periodic schedule, initially set to be every two weeks. Trustees have a single mandate for monetary governance: maximize the aggregate wealth held in Eco — the more successful ECO is as a currency, the more they've fulfilled their mandate. How the Trustees ultimately support that mandate is up to their discretion through the execution of monetary policy. Eco Trustees serve terms but may also be removed via community governance at any time; they may also be re-elected at the end of their term.



Details: COMMUNITY GOVERNANCE

How ECO and ECOx holders participate in system governance

[Note: Eco v1.0 is implemented on Ethereum mainnet. The entire system runs on a standard timing cycle of approximately 14 days (or equivalent blocktime). Each of these cycles constitutes a system 'generation' where balance snapshots enable certain stake-weighted voting mechanisms. Further technical details will be provided in system documentation.]

Eco users — both ECO and staked ECOx holders — can propose to upgrade or change virtually every function in the underlying system contracts. The general term for this is community governance.

Community governance proceeds according to the system generation timing and is broken into two phases: proposal submission and support, and active voting.

- *Proposal/Support Phase* — During the first 10 days of a generation, any ECO holder can submit a network update proposal; submission requires a fee payable in ECO. Once submitted, proposals remain open for review by all token holders, who can indicate support for an open proposal up to their total voting power (measured from the most recent snapshot). Since voting power is based on the balance store, supporting a proposal does not require locking up funds in a voting contract. Support may be withdrawn by a user at any time, or moved to a different proposal. To trigger active voting, a proposal must earn a significant level of support, with the initial threshold proposed to be 15% of total voting power in the current snapshot generation. If no proposal earns sufficient support before the generation ends, open proposals may be resubmitted or are otherwise archived.
- *Voting phase* — Voting opens immediately after a proposal satisfies the support threshold, and remains open for up to 72 hours (or until the end of the generation, whichever comes first). ECO holders and staking ECOx holders may openly vote in favor of or against a proposal while the voting period remains open. Where an upgrade proposal is approved by a majority of all potential voting power (in the current generation), the proposal takes effect immediately; where the upgrade proposal is approved by a majority of participating voting power, but less than a majority of all potential voting power, it takes effect after a 24-hour delay.

To calculate voting power:

Each unit of ECOx holds one vote, and ECO's total voting power is equal to (a) ECOx's total voting power at network launch, times (b) the ratio of ECO supply at the most recent balance snapshot to ECO's supply at network launch. If ECO is supply-inflationary (both from policy and ECOx conversion), over time ECO's cumulative voting power increases relative to that of ECOx.

Details: MONETARY POLICY

An introduction to the monetary policy levers in Eco v1.0

Eco Trustees vote on monetary policy settings once per generation.

During the first 10 days of a generation, Trustees submit and debate proposals for the next monetary policy cycle. Proposal submissions are limited to one per Trustee, and may be modified or withdrawn until the end of the 10-day submission period. Each proposal must be in a standard format, specifying a value for all possible policy settings.

During the next 3 days of a generation, after the proposal submission window has closed, Trustees independently vote on the next policy from the list of proposals. Trustees vote using a ranked-choice system, where proposals are assigned points based on how they are scored in each candidate's ranking. The points are determined by the number of proposals, and the ranking that

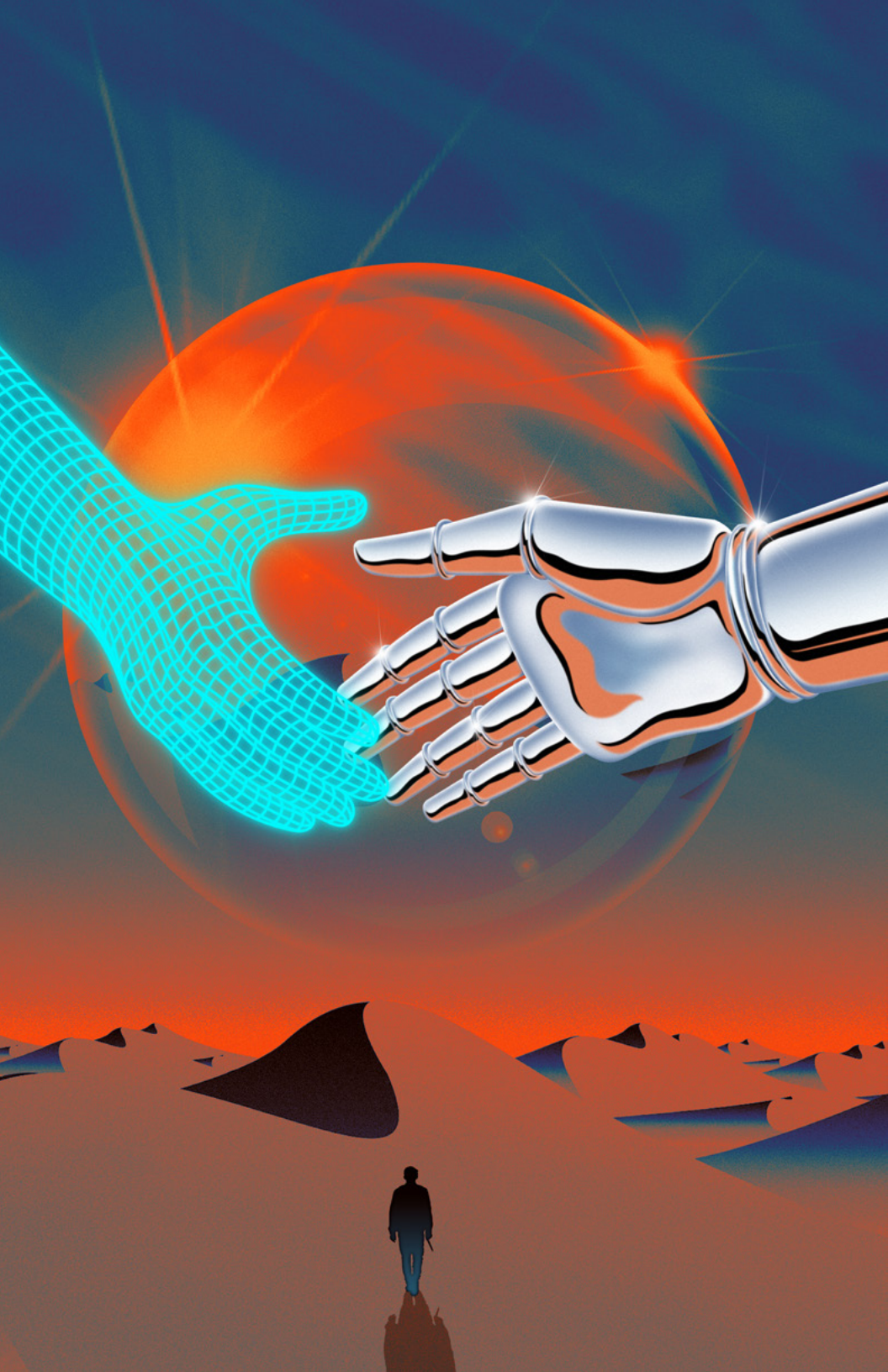
each candidate gives; the proposal that ends with the most points wins. The next day — Day 14, the last day of the present generation — the new monetary policy is revealed and takes effect for the next generation, and the time clock starts over with a new proposal and monitoring period.

In v1.0, Trustees have three monetary policy functions that they can vote on: The first is a *linear supply change*, where all ECO balances go up or down while preserving the same relative amount of ECO each wallet holds. The second is *randomized inflation*, where new supply of ECO is distributed to randomly selected ECO addresses. The third is *interest rates*, paid through deposit vaults having a timed expiry. A fourth policy function, *transaction fees*, is planned for a future upgrade but not implemented in v1.0.

Each monetary policy function is explained in further detail below.

- *Linear supply change* — This mechanism allows the quantity of circulating tokens to be adjusted on a pro rata basis that maintains the relative wealth for all holders. This is a rebasing function with a multiplier coefficient that may be either greater than or less than one, enabling Eco Trustees to enact both supply-inflationary and deflationary policies. When a linear supply policy is enacted, a new scale factor is applied to individual wallet balances network-wide, effectively 'minting' or 'burning' new ECO on a per-wallet basis.
- *Randomized inflation* — The random inflation mechanism allows Trustees to allocate ECO tokens to addresses based on random selection, in order to create nonlinear wealth effects within the Economy. Addresses are issued cryptographic 'tickets' based on an algorithm which factors in the most recent ECO balance snapshot and is proven on-chain. Each selected address entitles the owner to a share of newly minted tokens.
- *Interest rate vaults* — Trustees are also able to trigger interest rates on ECO holdings, payable to users who elect to lock up funds in contracts having specified time periods. Any ECO holder may elect to transfer funds to a vault to earn interest. However, if users elect to withdraw funds prior to the specified lockup duration, a penalty is imposed equal to the total amount of interest that ultimately would have been payable to the user at the end of the vault term. Interest is paid from new supply issuance as well as system reserves.
- *Transaction fees (inactive in v1.0)* — ECO transfers will incur a small transaction fee (paid in ECO). A constant portion of this fee, which cannot be altered by Trustee vote (but can be altered via community governance), accrues to staked ECOx. Trustees may also impose a variable Supplemental Transaction Fee (on top of the flat fee accruing to staked ECOx) to influence monetary velocity. Fees collected through this latter mechanism go to the system treasury.

Trustees can execute any of these monetary policy functions in combination, within their discretion to calibrate the system according to their mandate. Trustees are compensated by vesting into a preset number of ECOx tokens for each policy cycle, which they only receive if they register a vote in that cycle.



COMMENTARY

What makes Eco different

Eco is designed to depart from the two predominant models for digital currencies to date:

1. *Fixed, hard-coded monetary policy (such as Bitcoin's deflationary supply issuance model); or*
2. *Flexible, algorithmic-based monetary policy (such as many USD stablecoin models).*

Eco charts a different path, using programmable money tools to build toward crypto's vision — a transparent and incentive-aligned system for an inherently borderless digital currency.

ECO is a free floating digital currency intended for use as a medium of exchange foremost — and over time and with sufficient adoption, as an increasingly well-suited store of value.

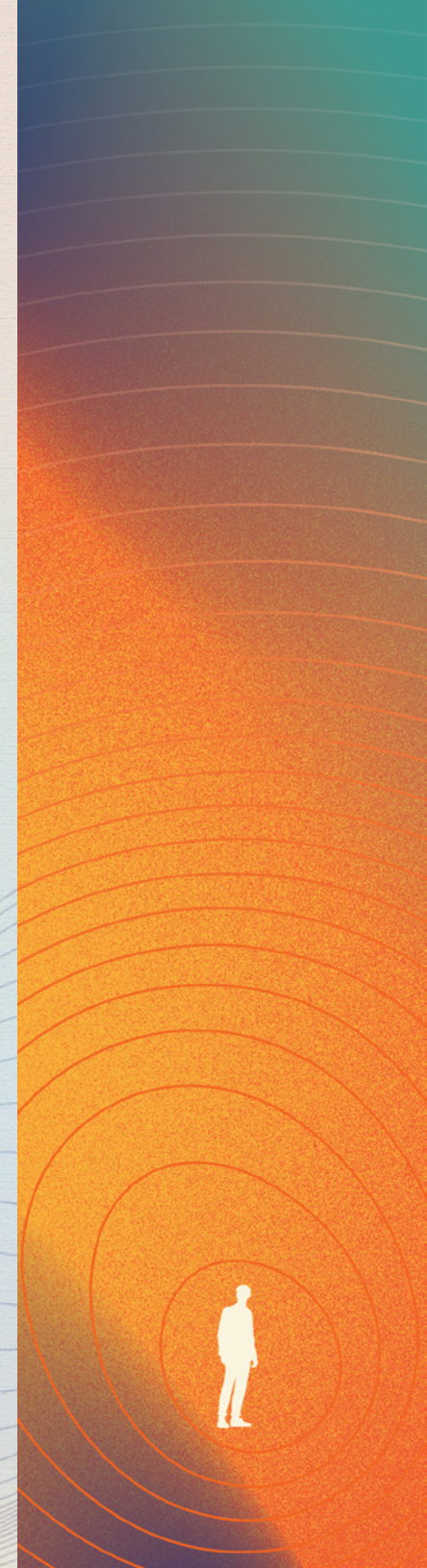
Eco deploys governance-based, independent monetary policy to respond to many potential states of the future. Whereas automation strategies (such as algorithmic policies) predetermine how the currency can respond to outside forces, Eco's discretionary strategy is intentionally less predictable, one that seeks to describe and enable economic realities in a new way, using a different system.

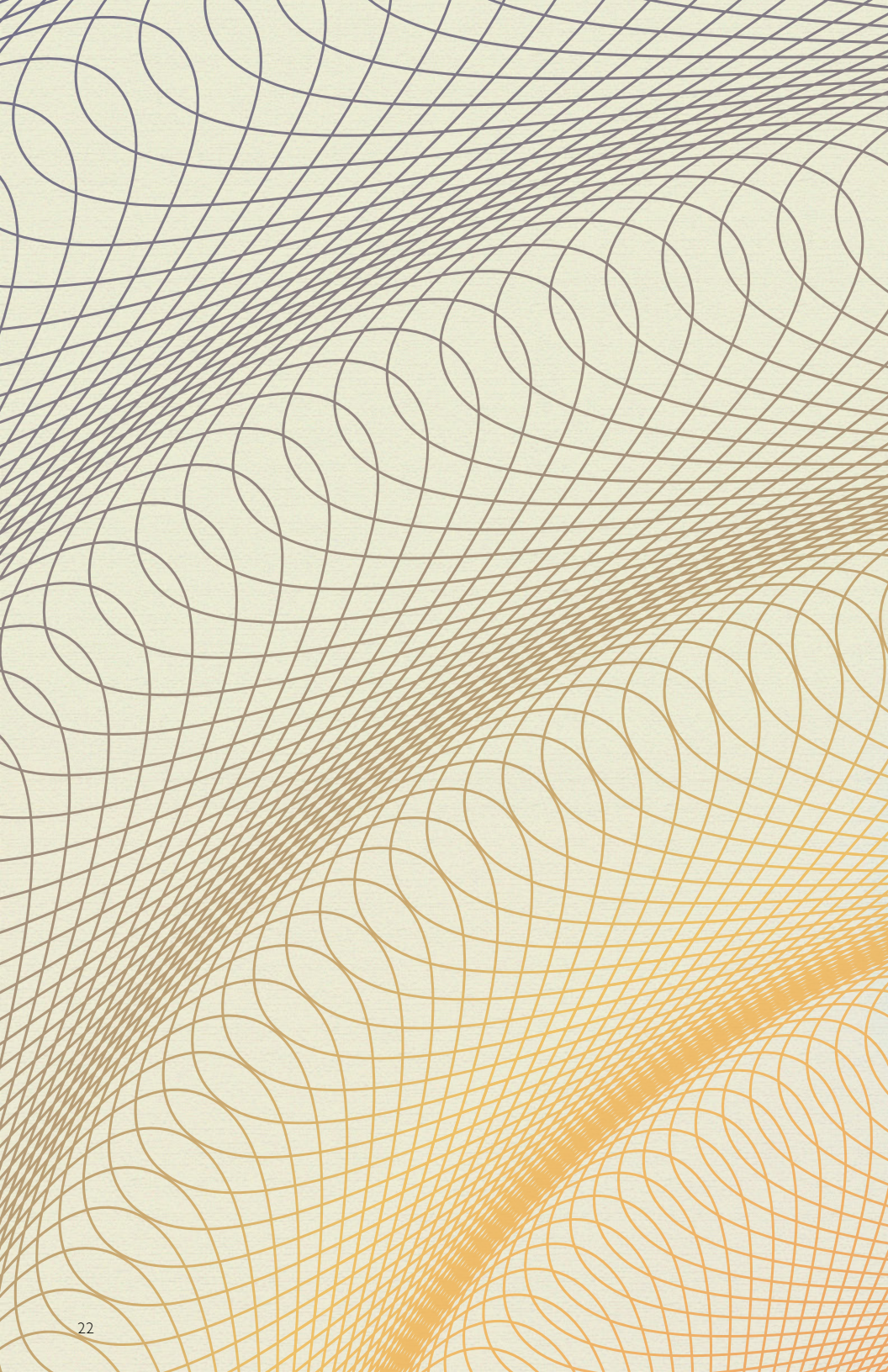
Eco seeks to leverage three inherent advantages for cryptocurrencies, as compared with fiat currencies today: better real-time economic data about payment flows and velocity, a more transparent and aligned incentive structure among system actors, and a more direct relationship between monetary policy and end consumers. (*contd...*)

The significance of these advantages should not be underestimated; cryptocurrency is an experiment not just in our willingness to adopt a new form of money, but also in our ability to construct a monetary system that is more aligned with consumer and producer wellbeing.

To run our experiment, applying *better data* with *clearer incentives* and a *more direct user relationship*, Eco Trustees enact monetary policy to accomplish one thing: maximize the amount of wealth held in the Economy (and the underlying Eco currency system). To support a growing Economy, it is likely that monetary policy will need to work to diminish ECO volatility over time and protect the purchasing power of ECO (relative to its use cases).

This Manual explains Eco's system design and starting conditions. Remember however that Eco is designed to not only be a fully decentralized system, but also to be fully upgradeable. Every aspect of the system can be changed at the discretion of its users (including the mechanism for instituting such change itself) through community governance. This Manual describes the system frameworks. From here, Eco will flourish based on the efforts and ideas of you, its users.





What you choose to do with this Manual is up to you, the Eco Community. In this Manual are all the right starting conditions, we believe, to build a real currency and Economy – one that works more transparently and in our collective best interest.



Thank you to our art director Spencer Jackson and lead designer Chema Mendez, and to the Artists and visionaries of our community responsible for the creation of this Eco Manual. Also special thanks to Fran Rodríguez, Frank Moth, Kyokill, Anastasia Shenaeva and OneRobot for their beautiful contributions and for helping bring our vision to life, each in their own unique artistic style.

