



Whitepaper
mainnet v1.0

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Foreword

Sustainability is a broad subject encompassing many areas of environmental, economic, and social development. To date, efforts to define its borders have proven slow, and meaningful progress has been limited.

The UN defines 17 areas for action under its Sustainable Development Goals (SDGs), ranging from poverty alleviation to clean energy, sustainable cities and protecting life on land. While some global treaties, most notably the 2015 Paris Agreement, have galvanized action, it is still not enough. Given the immense scope of the challenge, it is clear this challenge demands a novel approach.

We all understand the need to live sustainably - metals are finite, resources are limited, and pollution directly affects our health via food chains. How then, can we move beyond government and enterprise-led models to galvanize the 8 billion people Earth? How to visualize, encourage and reward those individual efforts in the pursuit of collective betterment?

We believe Web3 is the answer.

Background – Built on VeChainThor

Web3 is the new paradigm for the internet, encapsulated by the phrase 'read, write, own'. In Web3, blockchains provide new capabilities, with users immutably owning their data, able to transact it as a form of value. This stands in stark contrast to Web2, where internet giants gather and sell user data for profit. The Web3 model is the new engine for global change.

For sustainability, the implications are profound. As an emerging multi-trillion-dollar market, it has become a core consideration for business decision-making, compliance obligations and product sourcing. Sustainability has the potential to be an economic boon for forward-facing companies, integrating intelligent, automatable, and efficient digital architecture at their core.

Regulatory developments such as the US' Spot Bitcoin ETF and European MiCa regulations are watershed moments for blockchain and mark a fundamental shift in regulatory attitudes. These developments open new doors for VeChain, and a new chapter for blockchain mass adoption, pulling functional Web3 closer than ever.

Finally, blockchain – our best tool for synchronizing billions of individual efforts – can fulfil its destiny. VeChain, alongside influential enterprise partners, are seizing the opportunity to launch tools that unleash Web3’s potential for change.

VeChain’s role in this new era is facilitator and technical platform. Boasting deep experience delivering real world blockchain applications, VeChainThor is ready to serve as the bedrock of this new world. The focus on sustainability marks the latest phase in VeChain’s iterative journey – and culmination of three developmental cycles, each marked by a white paper.

Phase one: Identify, Build, Overcome

2017-19

WP #1: Development plan and whitepaper

Identify issue or opportunity

Enterprises issues when adopting **public blockchain**
Leveraging our partnership with PwC, VeChain learned the biggest blockers or enterprise adoption



Infrastructure development

- Public blockchain **launch**
- Mainnet **launch**
- **Fee** delegation
- **Multitask** transactions
- POA 1.0 **consensus** mechanisms - design for scalability & security
- **2-token model** to ensure transaction cost stability
- **Governance** model
- **Grants** 1.0



Tech expansion

Demonstrate **value proposition of a public blockchain**.
Use cases to show the value add (Givenchy products, registering businesses certification on-chain)

Phase Two: Expand Enterprise Adoption

2019-22

WP #2: Creating valuable TXs

Identify issue or opportunity



Infrastructure development



Tech expansion

Simplify adoption

Real-world adoption was wanted, the technology worked but we needed blockchain as a database improvement to be seamless.

• Toolchain launch

- Working with PwC & DNV to onboard enterprises
- Walmart (200M tx to date)
- MyCare, MyStory
- BMW (Digital Vehicle Passport)
- Low Carbon Ecosystem
- Supply chain use cases (clinical drugs ecosystem with Bayer)
- IVF Clinical Platform (MyBaby)

Phase Three: Powering People and Planet

2022+

WP #3: Web3 for better

Identify issue or opportunity



Infrastructure development



Tech expansion

Sustainability as a critical priority for businesses

Committed to promoting blockchain technology with real-world application for enterprises, VeChain partners up with BCG to build THE platform of sustainability; incorporating tokens and new forms of value for data and bringing efficient solutions to future auditing processes and regulations requirements.

- PoA 2.0
- VeWorld
- VORJ
- Hackathons
- X-Plan
- Grants 2.0
- CTO Center

- **VeBetterDAO**
- **X-to-earn applications**

Ahead of the third whitepaper – Web3 for Better, VeChain identified three key strategic opportunities to build on its learnings and onboard the next billion users to Web3 by 2030:

- The regulatory focus on sustainability, and enterprise needs to transparently meet targets
- The vast potential of 'token in play' and community centric business ecosystems
- The opportunity to drive Web3 adoption through engaging, rewarding dApps

Co-developed with the Boston Consulting Group, Web3 for Better outlined a bold plan to spearhead mass adoption of blockchain applications at both the enterprise and individual level.

The strategy placed 'X-2-Earn' at its core – incentive-driven ecosystems, defined by variable 'X'. In them, users can leverage their data and actions for value, earning tokens and rewards to create sustainable ecosystems, powered by blockchain. Web3 gives new value to your data.

Web3: Read, Write, Own

Sustainability and X-2-Earn are powerful paths to mass adoption. The strategy is bolstered by gamification mechanisms, VeChain's powerful blockchain tech, and a considerable enterprise network boasting many real-world use cases.

The viability of X-2-Earn was realized in the Low Carbon Ecosystem ([VIEW HERE](#)) built by VeChain, DNV and BYD.

BYD Electric Vehicle (EV) drivers could earn carbon credits based on distance travelled and carbon offset vs. gasoline powered engines. These credits could be exchanged for discounts, goods, and services from vendors, including food, insurance, and healthcare products. Blockchain guaranteed the legitimacy of the credits, catering for frictionless cross-industry collaboration without concerns for poor data quality.

Beyond the technical aspects, Web3 is also a social movement. It is a fundamental shift in society, with developments and decisions driven by communities, with egalitarianism and transparency at its core. We believe sustainability is everyone's job, and good work should be rewarded.

Incentive-driven ecosystems are the optimal path to a healthier environment for people and planet.

With this in mind, we set our sights on building an entirely new ecosystem on VeChainThor. We are excited to share its name today - the VeBetterDAO ecosystem. This new platform will serve as the

nucleus for a new era of sustainability-focused X-2-Earn dApps, a new layer of engagement and drive the adoption of VeChain far beyond enterprise users. It is time to do Better!

Introducing VeBetterDAO

Vision

VeBetterDAO is designed to become the de facto platform of Web3 sustainability X-2-Earn dApps. By leveraging strategic enterprise partners and Web3 builders, the goal is to launch a multitude of dApps that engage, incentivize, and reward participation, placing the power for change in the hands of people.

Boston Consulting Group – VeChain’s key strategic partner – is opening doors to enterprises and projects with a shared vision of this Web3 future. VeBetterDAO combined with VeChain’s enterprise-grade technology form the foundation of a game-changing ecosystem, supported by a best-in-class grants program, advanced tools, and BCG mentorship/VC opportunities.

The VeBetterDAO, powered by VeChain, is blockchain’s breakthrough moment.

Launch Plans

The VeBetterDAO launches in three phases - Pilot show Alpha: Testnet Take-off, Pilot Show Beta: Mainnet Blitz, and the Go-Live Gala.

Pilot Shows Alpha & Beta

Pilot Show Alpha: Testnet Take-off begins at the end of February 2024. During this time, a defined quantity of B3TR tokens (detailed below) will be distributed through airdrops, testnet activity and community engagement, seeding the initial users.

During Alpha, users will have the chance to playtest various functions and get familiar with the launch version. During this phase, the development team will have time to address bugs, hear feedback and introduce features.

B3TR Tokens earned during Alpha will carry over to Mainnet, with a snapshot taking place near to the launch of Pilot Show Beta: Mainnet Blitz, targeted for end of Q2, 2024.

In case of any unforeseen events, we will take additional measures to ensure B3TR tokens earned during Testnet are translated to Mainnet.

Go-Live Gala

The official launch of VeBetterDAO is planned to coincide with VeChainThor's mainnet anniversary – June 30th. The 'Go-Live Gala' phase introduces new features and functions, including:

- B3TR Token minting and distribution (Cadence outlined in 'Tokenomics')
- Ability to increase the maturity levels of Galaxy Membership (GM) NFTs
- Tools and functionality upgrades for X-2-Earn DApps
- Token staking programs
- Automation of Treasury and Governance management
- Additional, to be defined later

Tokenomics

General Tokenomics

DAOs, or Decentralized Autonomous Organizations, are ecosystems governed by communities. Users stake tokens to take part in governance events and earn token rewards for their participation. Through this new platform, VeBetterDAO aims to drastically increase transaction demand on VeChainThor, and reinforce the existing token model.

Incentive Token - B3TR

B3TR is the incentive token of VeBetterDAO. Its functions include:

1. General incentive token for VeBetterDAO, including DAO Treasury Management

2. Value carrier and monetization mechanism for active participants and innovative enterprise models
3. Incentive token for sustainability applications, including project support, community growth and engagement
4. Back VOT3 tokens 1:1, the token required for VeBetterDAO governance

Governance Token - VOT3

VOT3 is the governance token of the VeBetterDAO. Its functions include:

1. Required to take part in governance events
2. Staked to determine allocations of newly minted B3TR tokens
3. Being redeemable, 1:1 between B3TR and VOT3, via a dedicated swap pool

**To prevent manipulation, the B3TR redemption address must be the same one that initially swapped to VOT3. Users swapping VOT3 for B3TR will receive the same value initially locked in the Smart Contract.*

The VeBetterDAO Galaxy Member (GM) NFT System

The VeBetterDAO uses an upgradeable NFT system to determine the level of user privilege. The greater the level, the greater the B3TR token rewards.

GM NFT are upgraded by:

1. Donating accrued B3TR tokens to the Treasury. Donated B3TR will be used to support the ecosystem's growth as defined in the Treasury section.

VeChain X-Nodes and Economic Nodes are eligible for higher tier GM NFTs and B3TR rewards at launch, in recognition of their key role in VeChainThor governance.

GM levels will be unlocked progressively, requiring time for users to first accumulate the requisite number of B3TR for upgrades.

NFT Levels	GM Levels	Mint Plan X Node Level	B3TR required to donate to upgrade to next level	Reward Multiplier
NFT 0	EARTH	Free Mint	10,000	1.00
NFT 1	MOON	Strength, VeThor X	25,000	1.10
NFT 2	MERCURY		50,000	1.20
NFT 3	VENUS	Strength X, Thunder	100,000	1.50
NFT 4	MARS		250,000	2.00
NFT 5	JUPITER	Thunder X, Mjolnir	500,000	2.50
NFT 6	SATURN	Mjolnir X	2,500,000	3.00
NFT 7	URANUS		5,000,000	5.00
NFT 8	NEPTUNE		25,000,000	10.00
NFT 9	GALAXY		N/A	25.00

An overview of the VeBetterDAO Galaxy Member System.

Token Minting

Fair Launch Principle

The VeBetterDAO embodies fairness. Following the fair launch principle, there will be no pre-sales, private allocations, or team reserves of B3TR. Everyone has an equal chance to fairly acquire and earn B3TR. The fair launch of VeBetterDAO is key to our vision of building a transparent ecosystem, powered by community to become trusted arbiter for sustainability dApps.

Total Supply

The total supply of B3TR is capped at 1,000,000,000 tokens, with a weekly issuance schedule carried out over 12 years. With this long-term emission structure, the VeBetterDAO Treasury can

ensure ongoing support for builders and a wide distribution of tokens, decentralizing the ecosystem and its decision-making processes.

B3TR issuances are split among three parties:

- The X-to-Earn Applications Pool (XAP)
- The Voting Participation Pool (VPP)
- The VeBetterDAO Treasury Pool (VTP)

Pilot Show B3TR Release Schedule

During the Alpha & Beta phase of the Pilot Show, VeBetterDAO will be seeded with 3,750,000 B3TR tokens, allocated as follows:

- 1,000,000 B3TR for airdrops, to incentivize learning, participation, and engagement
- 1,000,000 B3TR for the pilot 'X-2-Earn' Applications
- 1,000,000 B3TR for the pilot Voting Participation Pool
- 750,000 B3TR for the pilot Treasury Pool

Once the pilot is complete, all remaining tokens will go to the Treasury.

Release Schedule in Go-Live Gala

Once VeBetterDAO enters the Go-Live Gala phase, B3TR tokens will be released on a weekly basis, starting at 4,000,000 per week. Every 12 weeks (one DAO epoch), B3TR allocations decay by 4%, totaling 96% of the previous epoch. B3TR token emissions will adhere to this release schedule until max supply is reached at 1,000,000,000 tokens.

Weekly allocations are divided into three sub-sections:

1. **The X-2-Earn (X2E) Application Pool (XAP)*** - starting from 2,000,000/week.
2. **The Voting Participation Pool (VPP)** - starting at 100% of the XAP, decaying every 50-weeks by 20%. E.g.:
 - a. Between weeks 1 to 50, VPP = 100% of XAP

- b. Between weeks 51 to 100, VPP = 80% of XAP
 - c. Between weeks 101 to 150, VP = 60% of XAP
 - d. Between weeks 151 to 200, VP = 40% of XAP
 - e. From week 201 onwards, VP = 20% of XAP
3. **The VeBetterDAO Treasury Pool (VTP)** - 25% of total allocation for XAP/VPP

The weekly XAP allocation is divided in to two segments:

- 30% of weekly XAP allocation will be evenly distributed to all qualified X-2-Earn applications
- 70% of weekly XAP allocation will be distributed based on the percentage of votes distributed by the community*

** From Pilot Show: Mainnet Blitz, individual X-2-Earn projects will be capped at 20% of the total weekly XAP distribution. At later stages, this cap can be adjusted through the VeBetterDAO governance system at the discretion of token holders. Any tokens remaining after the weekly vote will be sent to the Treasury.*

Ecosystem – X-2-Earn Applications

The 'X' in X-2-Earn refers to the mathematical concept of the unknown variable. 'X' can be applied to any kind of sustainability ecosystem with an earn mechanism. For example, 'Plant-2-Earn', for an ecosystem that rewards tree planting. Sweat-2-Earn, for dApps that reward working out, and so on.

B3TR tokens distributed to X-2-Earn dApps are, in part, intended as a source of incentivization for users. They may serve other purposes, such as encouraging builders, or for marketing and sponsorships etc.

B3TR reward distribution plans are at the discretion of projects and the voting community who will approve or disapprove of a project's reward proposals through voting.

X-2-Earn applications should embody the three guiding philosophies:

- **Meaningful:** The application is designed to advance sustainability in some form
- **Feasible:** The application can record and reward user efforts
- **Valuable:** Rewarded efforts create collective value and contribute to sustainability efforts

X-2-Earn Application: Validation and Qualification Process

In VeBetterDAO, VeChain Node holders play a crucial role as validators and qualifiers of X-2-Earn Applications. To be listed on VeBetterDAO, X-2-Earn applications need to seek the minimum approval value from Economic and X-Node holders before they can formally enter the platform.

This can be done through regular X Spaces and community forums, on Discord and Telegram, and other channels as appropriate. It will be necessary for projects to work with, and communicate updates to, interested stakeholders who will help secure weekly B3TR allocations.

The minimum requirement for VeBetterDAO listing is a qualification score of 100, granted by VeChain Nodes.

VeChain Nodes	Node Type	VET-Staking Requirement	Validator Nodes Qty to Qualify X2Earn App	Qualification Score for Each Node
X Node	Mjolnir X	15,600,000.00	1	100
	Thunder X	5,600,000.00	3	35
	Strength X	1,600,000.00	12	9
Eco Node	VeThor X	600,000.00	36	3
	Mjolnir	15,000,000.00	2	50
	Thunder	5,000,000.00	8	13
	Strength	1,000,000.00	50	2

Note: Losing qualification status (dipping under 100 points) will result in the delisting of a project from VeBetterDAO, and the cessation of token distributions. Projects can be relisted if they attain a +100 score.

Quadratic Funding for Weekly B3TR Allocations

[Quadratic Funding](#) (QF) is a mechanism designed to amplify the impact of smaller contributions, promoting a more equitable distribution of funds. This ensures that decentralized applications (dApps) with a larger number of individual supporters receive a greater share of the funding compared to those supported by a few large contributors.

For our weekly B3TR allocations, users vote on their favorite dApps. We then use the quadratic funding formula to determine how funds are distributed based on the number of votes each dApp receives. In this formula, votes replace contributions, ensuring that dApps with widespread support receive more funding.

Quadratic Funding Formula:

$$V_i^p \left(\left(\sum_j \sqrt{c_j^p} \right)^2 \right) - c_i^p.$$

Where c_j^p in our case is the individual vote for a given project.

This formula ensures that projects with broader support receive more funding, promoting an equitable distribution of resources.

Quadratic Funding will be applied to XAP allocations from Pilot Show Beta: Mainnet Blitz.

The timeline of weekly voting in VeBetterDAO is as follows:

- Proposals and project validation can occur any time during the week
- The snapshot to determine the amount of eligible VOT3 tokens in each voting round happens twice weekly, with the second taking place on Sunday, GMT 23:59
- The snapshot to determine voting results and XAP allocations takes place on the following Tuesday, at GMT 23:59

Governance

DAO Governance Strategic Roadmap

VeBetterDAO is committed to delivering full DAO community governance via an iterative, phased developmental approach.



Membership, Governance Stabilization and Proposal

Submission

Joining VeBetterDAO is easy - anyone holding VOT3 is a member and can take part in voting events. VOT3 is the VeBetterDAO's governance token, required to vote, and obtained by swapping from B3TR at a 1:1 ratio.

All members can vote on proposals, participate in governance discussions, and access the Treasury, without any minimum requirements. This ensures we can foster an inclusive, engaging environment for everyone.

Governance Stabilization Period and Initialization

At launch, VeBetterDAO will adhere to an initial set of governance rules until it has run for one year without any technical interruptions. The Stabilization Period is critical for ensuring the long-term efficacy and viability of VeBetterDAO.

To prevent exploits during the Stabilization Period, VeChain Foundation maintains the ability to pause & restart B3TR token minting, only in the case of an exploit or other major issue. Once the requirements of the Stabilization Period have been met, community stakeholders can maintain or deprecate this functionality through bi-annual voting events.

Proposal Submission

Proposals are the backbone of any DAO, and the community is a key part of the proposal process. VeBetterDAO will maintain a forum for proposal submission, discussion, and voting. The forum will feature a dashboard detailing voting results, historical records, and proposal details.

For a proposal to reach the final stages and be implemented, they must go through a predefined process, including initial forum-based community discussion, a community 'temperature check,' before on-chain voting and implementation.

Dispute, Security Guardians, & Transparency

Disputes arising from the DAO's governance process will be resolved by the community following the voting outcome of a proposal.

Security guardians, to be defined later following the development progress of VeBetterDAO, will be needed to set up with limited powers to pause parts of the protocol and take safety precautions during emergency events. They can act immediately, without time locks, and are managed by the VeBetterDAO Operator.

The guardian has a set of predefined actions it can take, including pausing contracts or vetoing malicious proposals.

Quadratic Voting for Proposal Decision Making

Quadratic Voting (QV) is a method used to recalibrate voting power within the VeBetter DAO. Unlike traditional voting mechanisms that may disproportionately empower large token holders, QV adjusts voting power based on the square root of the number of votes (or VOT3 tokens) held. This approach ensures that while voting power increases with more tokens, it does so at a diminishing rate, promoting a more equitable decision-making process.

QV is an innovative voting system designed to address the imbalances of traditional one-person-one-vote or one-token-one-vote systems. In QV, the cost of casting additional votes for a single option increases quadratically. This means that if a participant wants to cast multiple votes for a proposal, the cost of each additional vote grows exponentially.

Quadratic Voting Formula: $\text{Vote Power} = \sqrt{\text{Number of Votes}}$

Voting Process

1. **Snapshot:** Before a voting period begins, we take a snapshot of the number of VOT3 tokens held by each member.
2. **Voting:** Members cast their votes for **YES**, **NO**, or **ABSTAIN** on proposals.
3. **Effective Vote Power:** The actual influence of a member's vote is determined by the square root of the number of tokens they hold.
4. **End of Voting Round:** Voting round ends at a predefined block.
5. **Quorum Check:** We check if the quorum is reached, which means a minimum number of VOT3 tokens must participate for the vote to be valid.

6. **Determine Outcome:** If quorum is reached, we compare the total effective YES votes to the total effective NO votes. The proposal's outcome is determined based on which option has more votes.

Treasury Management

The Treasury is the beating heart of any DAO, representing the store of wealth and source of funds for the ecosystem. Adhering to the core principles of Web3, the VeBetterDAO Treasury will be transparent, fiscally efficient, and auditable.

The Treasury oversees a variety of functions relating to ecosystem tokenomics. The Treasury manages the following functions:

- B3TR and VOT3 Token Swapping Services
- Reward Programs
- Payment Control
- Accounting

Treasury management follows the rules and protocols defined in VeBetterDAO Governance. The uncompromising principle of the Treasury Pool is that tokens will only be used for expanding and building the VeBetterDAO ecosystem, making the world better in the process.

From Nobel Prize Winners to the Inclusive

Adoptions

We are proud to be working with world-leading talent in pursuit of VeBetterDAO's goals. VeChain advisor, Sir. Konstantin Novoselov, is the Nobel Prize Winner for Physics in 2010, and discovered graphene in 2004. Sir Novoselov's research has led to the development of new fields of physics, with powerful new nanomaterials being developed helping to make the world a more efficient, intelligent, and sustainable place.

But you do not have to be a Nobel Prize Winner to make the world better. Every idea can be multiplied, and every fractional effort can be transformed into greater collective impact. Builders, enterprises, dApps and communities – encompassing millions, eventually billions of users – will tip the balance and achieve the vision of a healthier planet, and sustainable global economy – powered by Web3.

Be Better

Join VeBetter DAO