



PTON

# PTON Ecological White Paper

**Web3.0+DAO decentralization  
Scientific research (DeSci) new paradigm**



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# 01

## Global markets Background analysis

Analysis of the Global  
Market Background

# I GLOBAL MARKET BACKGROUND ANALYSIS

## 1.1 The Web3.0 ecosystem has exploded and decentralized scientific research (DeSci) has evolved

The deep integration of Web3.0 and blockchain technology has promoted the transformation of the scientific research system from "institutional centralization" to "community co-governance", and decentralized scientific research (DeSci) has become the core emerging track. With the help of blockchain, DAO, and tokenization tools, DeSci reconstructs the entire process of scientific research funding, data sharing, and achievement transformation, breaking down traditional barriers to scientific research and realizing a new paradigm of "open collaboration and value sharing".

In 2007, Stanford University's Folding@Home project laid the foundation for DeSci, with 15 million PlayStation 3 users worldwide contributing computing resources to help with disease research. The current global scientific research market size exceeds one trillion US dollars, while the market value of the DeSci track is only about \$1.2 billion (Messari Research data), accounting for only 0.035% of the total market value of cryptocurrencies, and is expected to exceed \$50 billion by 2030. Ethereum accounts for 69% of the DeSci market, and Solana has made significant progress in recent years, and DeSci is moving from early exploration to large-scale application.

**\$12 billion**

The market value of the DeSci track is approximate

**0.035%**

Percentage of total cryptocurrency market capitalization

**\$500 billion**

It is expected to break through in 2030

**69%**

Ethereum holds the DeSci market share

## 1.2 Existing pain points and market needs in the industry

There are multiple structural shortcomings in the traditional scientific research system and existing platforms:

Financial barriers: giant institutions control core resources, early-stage, high-risk and niche cutting-edge projects are difficult to support, and high-quality ideas are the "valley of death";

Data islands: the decentralized storage of scientific research data, the difficulty of cross-institutional and cross-regional sharing, and the restriction of collaborative innovation;

Collaboration threshold: Geographical, discipline, and resource barriers restrict the linkage of global researchers, and lack of efficient and transparent collaboration platforms;

Inefficient transformation: complex intellectual property management, narrow monetization channels, and difficult long-term reasonable returns for scientific researchers;

Cumbersome management: inefficient project management and audit processes, lack of transparency;

Platform limitations: The technical threshold is high, the scenario coverage is single, and a complete closed loop of "capital-data-collaboration-results" has not been formed.

A decentralized scientific research platform with low threshold participation, fair distribution, transparent collaboration, and secure confirmation of rights has become an urgent need in the market.



## 1.3 The industry positioning and development opportunities of the project

The PTON ecosystem accurately grasps the development trend of DeSci, relying on Web3.0 technology and DAO governance advantages to create a core hub connecting global researchers, investors, funders and the real economy, and the galaxy is an important part of the PTON ecosystem.



As of July 2024, there are 85 active DeSci projects worldwide, and as an emerging scientific research resource allocation path, the demand for decentralized funding platforms is growing. The PTON ecosystem does not require complex professional backgrounds, enabling global scientific research-related entities to participate equally in ecological construction and value distribution, focusing on core areas such as biomedical health, artificial intelligence, and big data, solving the monopoly problem of traditional scientific research resources, and promoting decentralized scientific research from segmented exploration to popularization.

# 02

## Project positioning and the underlying architecture

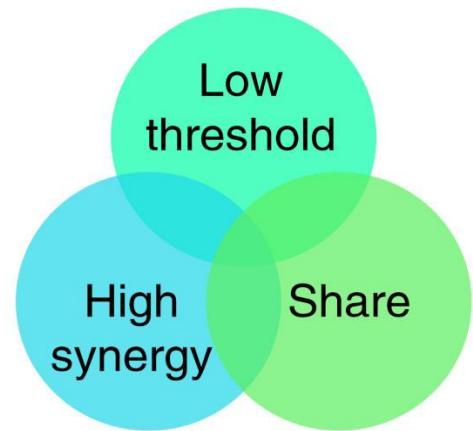
Project Positioning and  
Underlying Architecture

# 2

# PROJECT POSITIONING AND UNDERLYING STRUCTURE

## 2.1 Core positioning

Initiated by the GBF Foundation, the PTON ecosystem is built on the Binance Chain (BSC) smart contract, deeply integrating Web3.0 technology and DAO governance concepts, and is positioned as a Web3.0 scientific research collaboration and innovation value empowerment hub with "low threshold, high collaboration, and co-sharing".



The core of decentralized science (DeSci) is to use blockchain technology to establish an open and community-driven scientific research model, democratize scientific research, make scientific knowledge accessible to all people, and make the scientific research process transparent. With this as the core, the PTON ecosystem is committed to breaking down barriers to scientific research participation, fund allocation, and achievement transformation, and building a distributed scientific research ecosystem that is transparent and traceable, node co-governance and sharing, and win-win for scientific research stakeholders.

## 2.2 Underlying architecture

Based on Binance Chain (BSC), a modular design is adopted to build a three-layer architecture of "core layer, service layer, and application layer":

Core layer: Solidity language develops smart contracts to realize core functions such as scientific research fund allocation, achievement confirmation, voting decision-making, etc., open source and verifiable, and supports transparent storage and access management of scientific research data.

Service layer: Provide basic services such as distributed data storage, cross-chain compatibility, security protection, and anchoring the value of scientific research results, build an open on-chain data sharing protocol, and support IP-NFT management.

Application layer: covers scenarios such as scientific research participation, project governance, fund management, and achievement transformation, adapting to the needs of scientific research in multiple fields and achieving seamless connection between scientific research stakeholders.

Core technical support: high TPS ensures high concurrency demand, low gas fees lower the participation threshold, and data is fully linked to ensure traceability, providing a guarantee for the efficient operation of the scientific research ecosystem.

## 2.3 Core Values

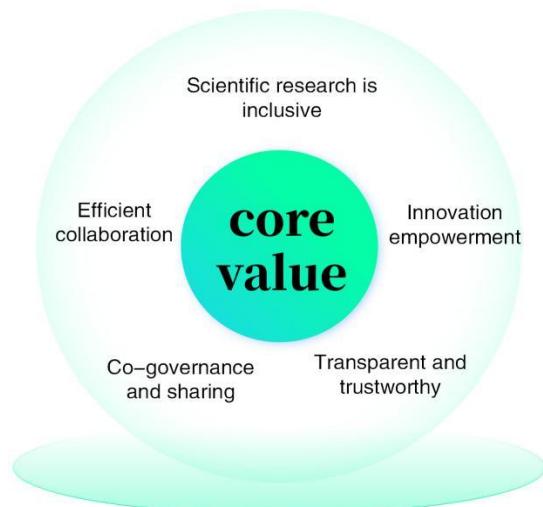
Scientific research inclusiveness: break the restrictions of geography, identity and resources, and achieve the coverage of scientific research resources and services for the whole people;

Innovation empowerment: provide scientific researchers with financial support, data sharing, achievement confirmation, transformation and realization of full-chain services, focusing on cutting-edge fields to help scientific research breakthroughs;

Transparent and credible: the whole process is on-chain, smart contracts are automatically executed, and fund allocation, data circulation, and results are open and cannot be tampered with;

Co-governance and sharing: With DAO governance as the core, it empowers scientific research stakeholders with decision-making authority to build a positive cycle of "participation-co-construction-sharing".

Efficient collaboration: Optimize the collaboration mechanism, strengthen cross-regional and interdisciplinary linkage, and improve the efficiency of ecological operation.



## 2.4 Core advantages

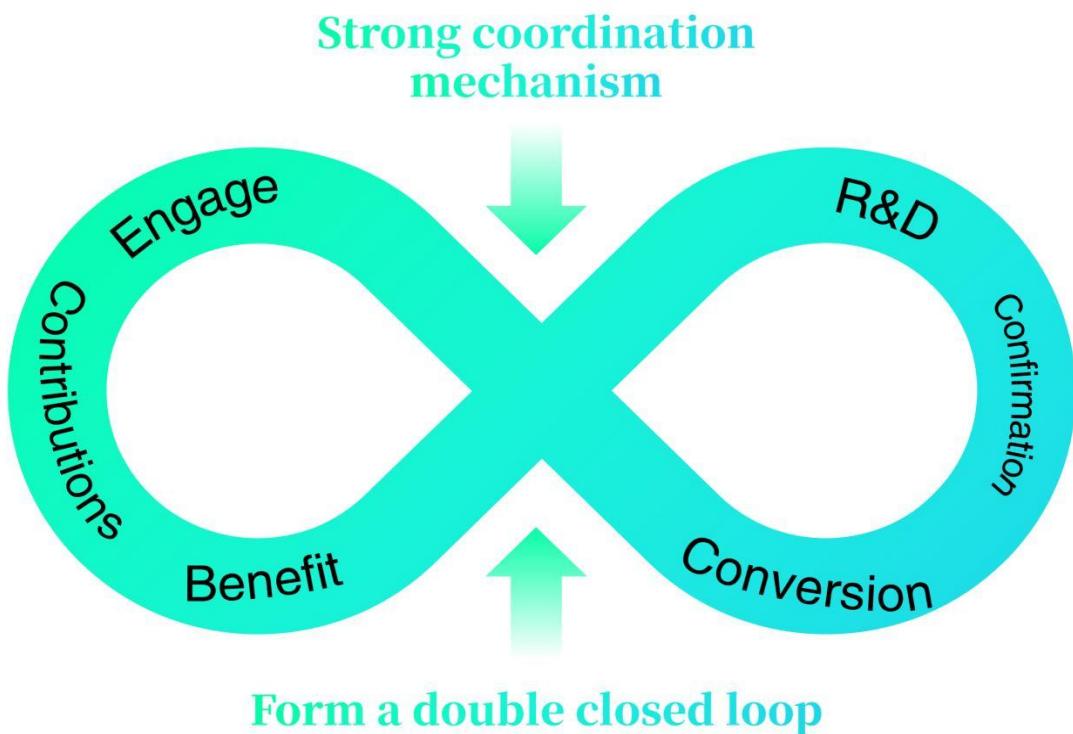
Low-threshold access: Simplify the process of project initiation, fund application, and data sharing, and achieve "everyone can participate and scientific research is easy to implement";

Strong synergy mechanism: form a double closed loop of "participation–contribution–benefit" and "R&D–confirmation–transformation", and link resources in multiple fields to achieve complementarity;

Transparency of the whole process: all scientific research behaviors, data and achievements are stored on the chain to prevent black box operations and infringement;

Solid resource endorsement: The sponsor gathers multiple resources to provide technical, compliance, ecological integration and project docking support;

Precise Scenario Adaptation: Focus on core areas such as biomedicine, AI, and big data to provide customized solutions.



03

# Ecological subject and strategic cooperation

## Ecological Entities and Strategic Cooperation

# **3 ECOLOGICAL ENTITIES AND STRATEGIC COOPERATION**

## **3.1 Introduction of the initiator**

The PTON ecosystem is initiated by the GBF Foundation, which has deep experience in blockchain research and development, scientific research project operation, Web3.0 resource integration, scientific research ecological construction, etc., and provides financial and localized operation guarantees to ensure the technological advancement and ecological sustainability of the project.

## **3.2 Core team strength**

The core team is composed of senior experts in the fields of blockchain technology, scientific research project management, financial risk control, Web3.0 operation, DAO governance and scientific research ecological operation, all of whom have more than 10 years of relevant experience and have led many large-scale scientific research collaboration projects and the construction of the Web3.0 ecosystem. The technical team is proficient in the characteristics of mainstream public chains, the risk control team is good at risk prevention and control of distributed scientific research projects, and the operation team has mature global landing methodologies.

## **3.3 Strategic cooperation and resource support**

The project has reached in-depth cooperation with many Web3.0 communities, scientific research institutions, technical service providers, compliance consulting institutions, biomedical companies, and scientific researcher alliances around the world. At the technical level, we cooperate with security audit institutions to ensure system security, at the compliance level, we work with international consulting teams to ensure global operational compliance, and at the ecological level, we can realize the sharing of user traffic, scientific research resources and real industry resources, and quickly connect scientific research projects and monetization channels in multiple fields.

# 04

## Ecological architecture and governance system

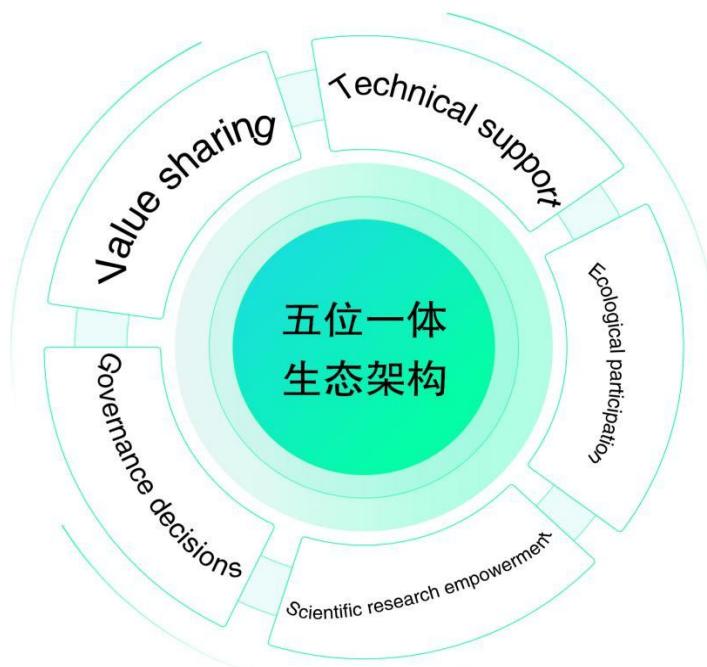
Ecological Architecture  
and Governance System

# 4 ECOLOGICAL ARCHITECTURE AND GOVERNANCE SYSTEM

## 4.1 Ecosystem system

Build a five-in-one ecological structure of "technical support, ecological participation, scientific research empowerment, governance decision-making, and value sharing":

Technical support layer: With Binance Chain smart contracts and Web3.0 technology as the core, it supports the implementation of DeSci's core functions.



Ecological participation layer: Covering multiple subjects such as researchers, investors, funders, and nodes, activating enthusiasm for participation through incentive mechanisms;

Scientific research empowerment layer: focus on exclusive scientific research services such as fund application, data sharing, achievement confirmation and transformation and realization;

Governance decision-making layer: With the DAO organization as the core, ensuring fair and transparent decision-making.

Value sharing layer: Through the fair distribution mechanism, the two-way sharing of ecological and scientific research values is realized, forming a virtuous circle, and the galaxy, as an important part of the PTON ecosystem, is deeply integrated into the coordinated operation of various architectural levels.

## 4.2 DAO governance mechanism

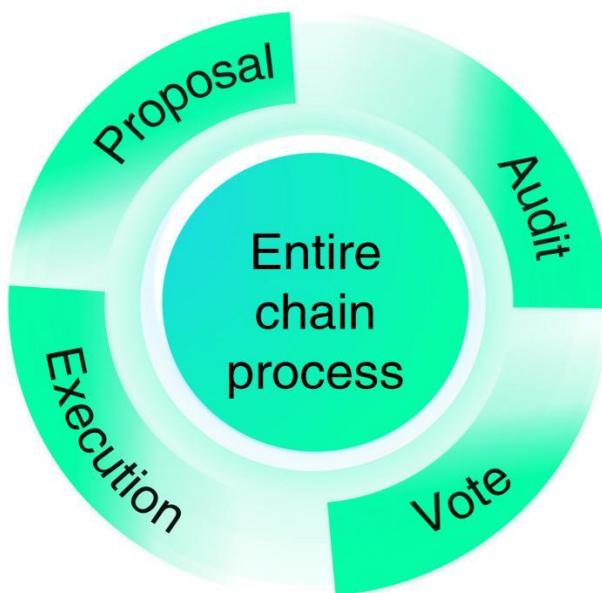
The DAO provides DeSci with an equal and transparent participation platform to solve the pain points of the traditional scientific research system, and the core design of the governance mechanism of the PTON ecological DAO is as follows:

Governance authority: All participants and researchers enjoy equal governance rights, and authority is directly linked to ecological contribution and scientific research value.

Decision-making process: Adopt the "proposal–review–voting–execution" full-chain process, open for 7 days of voting after proposal review, and the approval rate will take effect when the approval rate reaches 51%.

Governance Tools: Exclusive DAO governance DApps support multi-chain wallet logins, providing convenient functions such as proposals, voting, and queries, lowering the barrier to participation.

Core role: allocate funds through decentralized voting, and smart contracts automatically distribute them; Provide on-chain data sharing protocol and IP–NFT support; build a decentralized review platform to shorten the results review cycle; Build a global collaboration platform to democratize governance.

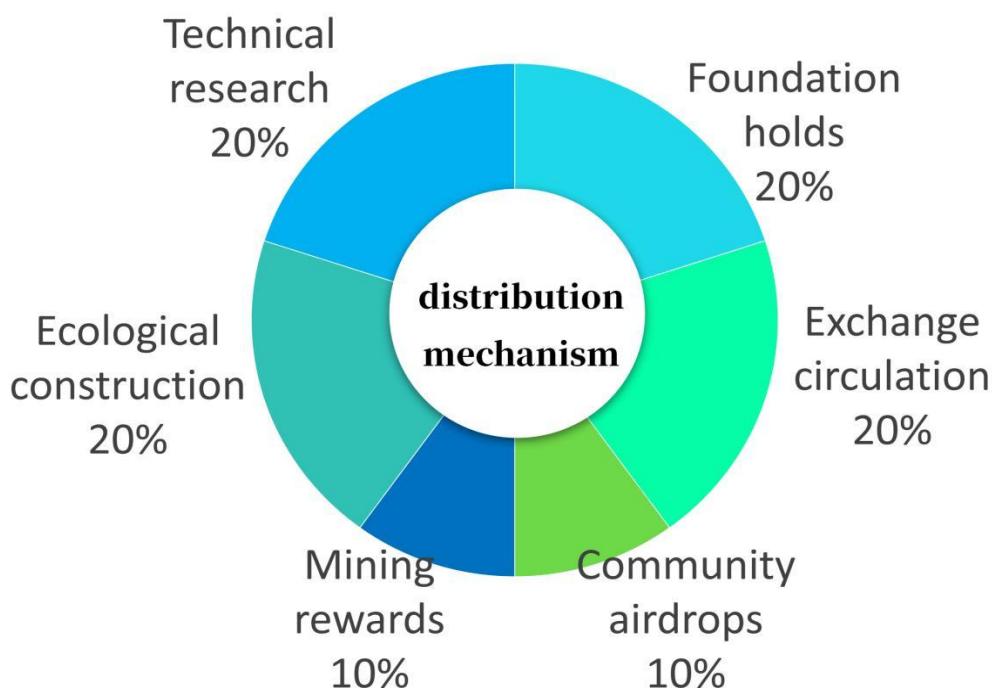


## 4.3 Ecological collaboration and incentive mechanism

Collaborative mechanism: build a core operation team through the node system, encourage users to participate in scientific research collaboration, give feedback and suggestions, support researchers to produce high-quality results, and strengthen the linkage of global scientific research resources; Incentive system: Set up special incentives for participation, contribution, node, governance and scientific research, and issue them as ecological tokens, which can be used for trading, staking, governance voting and consumption in the ecosystem, and improve the tokenomics model.

## 4.4 Pton token distribution mechanism

The total issuance of PTON is set at 100 million, and the distribution takes into account ecological stability and development vitality: the foundation holds 20% (locked for 1 year, and then released linearly in the next 60 months) to ensure the implementation of the long-term strategy; 20% circulation on the exchange to improve market liquidity; 10% for community airdrops to empower early supporters; 10% distribution of mining rewards to incentivize node participation; 20% invested in ecological construction to support ecological projects; 20% is dedicated to technical research to drive core innovation.



05

# Technical application and innovation

## Technology Application and Innovation

# **5 TECHNOLOGY APPLICATION AND INNOVATION**

## **5.1 Core technological innovation**

Smart contract optimization: hierarchical design + built-in verification mechanism to ensure accurate fund allocation and scientific research rights, support modular upgrades, and manage scientific research data access rights and IP-NFT circulation.

Full-process on-chain storage: scientific research data, behavior and achievement rights and interests are on the chain in real time, sensitive data is encrypted and protected to ensure the integrity and immutability of scientific research records;

Low-threshold interactive design: Simple DApp interface, users can complete participation, voting and other operations with one click, and researchers can quickly confirm and transform the rights of their achievements.

Cross-chain collaborative technology: Independently develop cross-chain protocols, support the interoperability of mainstream public chain assets, and broaden the circulation channels of scientific research resources;

Scientific research achievement confirmation technology: Relying on the immutable characteristics of blockchain, it realizes the accurate control of the time and ownership of scientific research results, and consolidates the foundation for transformation.

## **5.2 Safety protection system**

Build a multi-layered security network:

The smart contract has undergone multiple rounds of audits by a third party to establish a vulnerability emergency response mechanism.

data encryption storage + distributed backup, desensitization processing of core scientific research data;

Deploy DDoS protection, firewalls, and other facilities to monitor cyberattacks in real time.

"cold wallet + hot wallet" is used for hierarchical storage, and the multi-signature of hot wallet ensures asset security;

Strictly implement KYC/AML mechanisms to prevent violations and protect the legitimate rights and interests of participants.

# 06

## Ecological landing and application scenarios

Ecological Implementation  
and Application Scenarios

# 6 ECOLOGICAL LANDING AND APPLICATION SCENARIOS

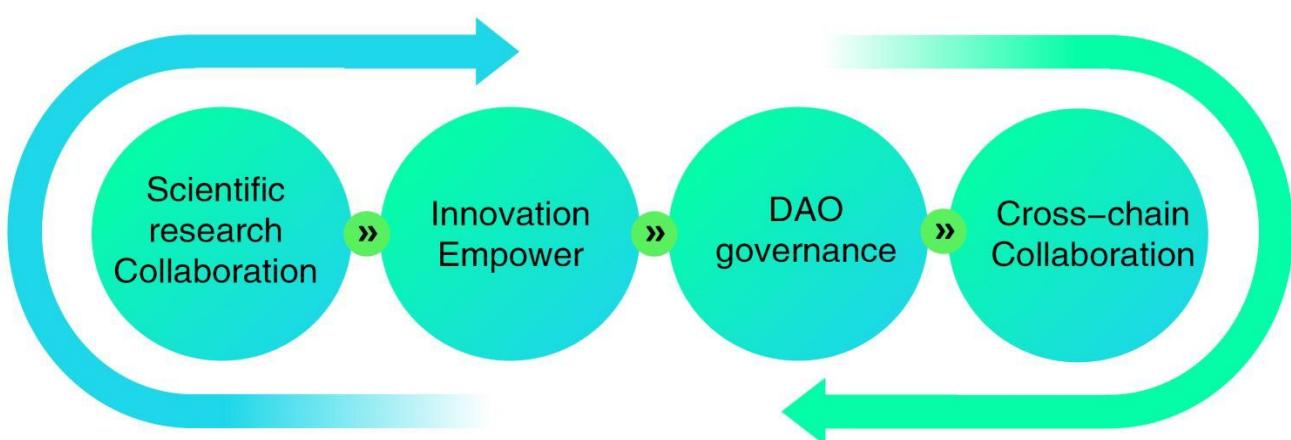
## 6.1 Core application scenarios

Scientific research collaboration: integrate fund application, data sharing, and project management, create a one-stop collaboration portal, break down geographical and disciplinary barriers, and promote cross-border and cross-field cooperation;

Innovation empowerment: Provide scientific research achievement confirmation, value assessment, and compliance transformation services, focusing on the fields of biomedicine and health (infectious disease prevention and control, vaccine development, etc.) and artificial intelligence big data, and provide precise support;

DAO governance: Covers decisions such as project approval and fund allocation, and ensures fair and efficient results review through a decentralized review platform.

Cross-chain collaboration: Support the interoperability of mainstream public chain assets, integrate DeSci resources from different public chains, and achieve ecological collaboration.



## 6.2 Ecological implementation and promotion

Regional layout: focus on Southeast Asia, East Asia, and North America first, build a scientific research community and then expand globally;

Community Operation: Through the multilingual community matrix, regular AMAs, research salons, and other activities are held to popularize the concept of DeSci.

Resource docking: linkage with Web3.0 communities, scientific research institutions and real industries to achieve resource complementarity and accurate docking of scientific research projects in multiple fields;

Scientific research recruitment: Cooperate with well-known scientific researchers to launch a settlement plan, provide resources and transformation incentives, and strengthen the ecological scientific research force.



Regional layout



Community operation



Resource docking



Scientific research recruitment

## 6.3 Ecological participation guarantee

Operation optimization: Simplify the DApp process, support the user guide for novices and researchers, and lower the technical threshold.

Service support: 24-hour customer service responds to consultation and feedback, and solves various problems in the process of participation in a timely manner;

Security and compliance: Multi-level protection protects rights and interests, automatic settlement of smart contracts, and simultaneous application for compliance qualifications, providing a safe and reliable participation environment.

## 6.4 Ecological system construction and three-to-five-year development plan

Core ecological composition:

BTCFI sector: Relying on Bitcoin's secure base and EVM compatibility capabilities, it creates financial tools such as non-custodial staking, lending, and liquidity mining to unlock trillions of BTC liquidity.

Guessing applications: Build a decentralized fair quiz platform to ensure transparency with on-chain verifiable mechanisms, covering multiple scenarios such as sports and events.

Galaxy Ecosystem: Build a cross-chain asset interaction network, realize the seamless circulation of multi-chain assets, and build an ecological value community.

Laboratory: Focus on breakthroughs in the underlying technology of blockchain, focusing on cutting-edge directions such as consensus mechanism optimization and privacy computing;

Pton protocol: Launched standardized cross-chain communication, asset pledge and other protocol suites to lower the entry threshold for developers;

Public chain infrastructure: Build a high-performance public chain, with the goal of achieving 10,000-level TPS and second-level confirmation, and be compatible with mainstream developer tool ecosystems.

Three-Five-Year Development Plan:

1–2 years (ecological foundation period): Completed the launch of the public chain mainnet and the deployment of the Pton protocol, implemented the core application of BTCFI, attracted more than 50 ecological projects to settle in, and the number of unique addresses on the chain exceeded 1 million.

3–4 years (scale explosion period): The Galaxy cross-chain network is connected to the mainstream public chain, the daily active users of the guessing sector exceed one million, the laboratory has overcome core privacy technology, and the ecological TVL has exceeded 5 billion US dollars.

5 years (industry leadership period): Become a benchmark ecology in the BTCFI field, with a scale of more than 10,000 public chain nodes, build a positive cycle of "technology-application-user", rank among the world's top blockchain ecosystems, and promote PTON to become a core hub for cross-chain value interaction.

# 07

# Strategic planning and implementation path

Strategic Planning and  
Implementation Path

# 7

# STRATEGIC PLANNING AND IMPLEMENTATION PATH

## 7.1 Short-term goals (1-6 months): Ecological launch and foundation consolidation

Technology: Completed the development, auditing, and deployment of core smart contracts, launched the beta version of DApps, and built a basic security system and a confirmation module for scientific research results.

Market: Launch a global community, acquire 20,000+ core users and 500+ high-quality scientific researchers, and complete compliance filing in core regions.

Ecology: Release DAO governance rules, recruit ecological nodes, implement basic incentive scenarios and scientific research empowerment preliminary functions, and promote the infrastructure construction of the galaxy as a core component of the PTON ecosystem.

## 7.2 Medium-term Goals (7-18 months): Ecological expansion and scale improvement

Technology: Launched the official version of the DApp to realize the implementation of cross-chain technology, optimize contract performance and scientific research achievement transformation functions;

Market: The number of users exceeded 500,000+, the core nodes reached 1,000+, the scale of scientific researchers exceeded 10,000+, and expanded to 3-5 key regions;

**500,000+**

User breakthrough

**1000+**

Core nodes

**10,000+**

The scale of scientific researchers

**3-5 pcs**

Expand key areas

Ecosystem: Enrich application scenarios, reach cooperation with 10+ Web3.0 projects, 5+ real industries, and 3+ large scientific research institutions, deepen the implementation of scenarios in key areas, and improve the functional implementation and collaboration mechanism of the galaxy in the PTON ecosystem.

### **7.3 Long-term goals (19-36 months): Global leadership and value implementation**

Market: To become the world's leading decentralized scientific research and innovation empowerment platform, with more than 10 million+ users and 100,000+ scientific researchers, covering 100+ countries;

Technology: Explore the integration of AI and DAO, build an exclusive Layer2 expansion solution, and optimize the matching technology for scientific research value evaluation and achievement transformation.

Ecology: Forming a perfect closed loop, tokens have become the core value carrier in the field of Web3.0 scientific research, serving more than 1 million small and medium-sized enterprises and scientific research-related groups, becoming a benchmark for the integration of global scientific research ecology and decentralized finance, promoting the galaxy to become a highly influential core sector in the PTON ecosystem, and helping the ecological global leading position to be established.

**10 million+**

**100,000**

**100+**

User breakthrough

The scale of scientific  
researchers

Countries covered

# 08

## Risk control and compliance layout

Risk Control and  
Compliance Layout

# **8 RISK CONTROL AND COMPLIANCE LAYOUT**

## **8.1 Regulatory compliance risk response**

Establish a professional compliance team to track changes in global regulatory policies; Apply for compliance qualifications and related licenses by region; Strictly implement KYC/AML mechanisms and connect with anti-money laundering databases. Truthfully disclose risks, clarify token utility token attributes, and standardize the transformation process of scientific research results. Guide users and researchers to comply with local laws and regulations.

## **8.2 Prevention and control of technical security risks**

Improve the contract development and audit process, and conduct regular third-party testing; optimize the security protection system, deploy advanced monitoring tools, and focus on ensuring the security of scientific research data and achievements; set up a bug reward fund and establish a rapid response and repair mechanism; Deploy multi-regional disaster recovery data centers and conduct regular disaster recovery drills.

## **8.3 Market and operational risk response**

strengthen ecological value construction and scientific research ecological stickiness, and guide users to participate rationally; Build differentiated ecological barriers and pay close attention to industry competition dynamics and changes in scientific research demand. optimize product experience and services, improve incentive mechanisms, and enhance the stickiness of users and researchers; Establish a diversified cooperation system, clarify the distribution of cooperation rights, responsibilities and benefits, and ensure the stability of the channels for the transformation of scientific research results.

09

# vision and mission

Vision and Mission

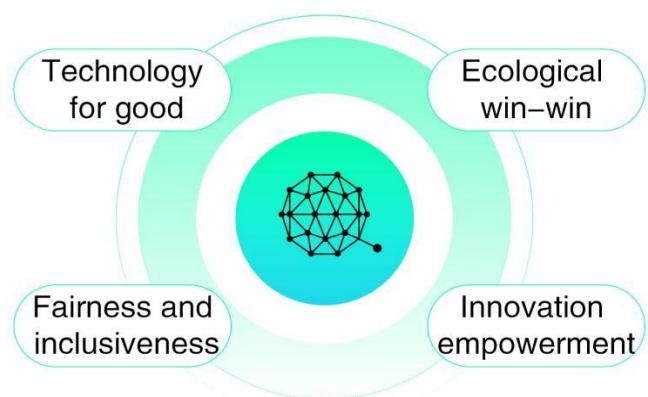
# 9

# VISION AND MISSION

## 9.1 Core mission and value orientation

Core mission: With Web3.0 technology and DAO governance as the core, build a fair, transparent, and inclusive decentralized scientific research ecosystem, create an efficient and safe innovation value empowerment system, allow global users to enjoy scientific research resources equally, and ensure that every scientific research value is fairly rewarded, and promote the globalization of scientific research inclusiveness and innovation empowerment.

Value orientation: Adhere to the principle of "technology for good, ecological win-win, fairness and inclusiveness, and innovation empowerment", let Web3.0 technology serve the public and researchers, return scientific research to its essence, and promote global scientific research collaboration, fair distribution of resources, and innovation ecological prosperity.



## 9.1 Core mission and value orientation

Long-term vision: To become the world's leading dual benchmark for decentralized scientific research and innovation empowerment in the Web3.0 era, deeply connect digital assets, the real economy and scientific research innovation, build an open and inclusive global scientific research collaboration and value sharing network, and promote the DeSci model to become the mainstream collaboration paradigm in the global scientific research field. Industry impact: Break the barriers to traditional scientific research participation and the dilemma of achievement transformation, and provide a replicable integration model of scientific research inclusiveness and innovation empowerment. Promote the popularization of DAO governance in the field of scientific research, promote the deep integration of blockchain with the real economy and scientific research industry, change the global scientific research resource allocation pattern, and stimulate the vitality of scientific research and innovation.

# 10

## Disclaimer

Disclaimer



# 10 DISCLAIMER

1. This white paper is for reference only and does not constitute investment advice, income commitments or legal offers, but is only a description of the project's technical and ecological planning.
2. The project is based on blockchain technology, and there are uncertainties such as technology iteration, market fluctuations, and regulatory changes, and users and researchers need to be fully aware of the risks.
3. The decentralized scientific research industry is highly risky, and users need to make independent decisions based on their own cognition and risk tolerance.
4. Users and researchers must abide by local laws and regulations, and illegal capital inflows, infringement of achievements and other violations are strictly prohibited, otherwise they will bear legal responsibility.
5. The content of this white paper may be adjusted, and the final interpretation right belongs to the project party, the specific official announcement shall prevail, and the relevant decision-making risks shall be borne by the actor.
6. The blockchain and decentralized scientific research industry is still in the development stage, there are unknown risks, the platform tries its best to prevent and control but cannot completely avoid it, and users and researchers need to participate rationally.

# PTON

# Thank you

THANK YOU FOR WATCHING

