

RENEW LABS : WHITE PAPER RESOURCE RECIRCULATION FOR NET ZERO!

Blockchain resource circulation project for climate crisis

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RENEW LABS: CREATING A SUSTAINABLE FUTURE



ABOUT US



One of the biggest issues in the world right now is E.S.G (Environmental, Social, Governance). From the past to the present, companies have created countless immorality for blind profit creation, causing a crisis for humanity, and E.S.G is a new paradigm created with humanity's promise to solve this vileness. Among these E.S.G paradigms, the most important and priority element is the environment, and this is a problem of human survival that we must solve.

01

For the expansion of the eco-friendly platform that underpins recycling, the main logo was used in combination with 'RENEW', which means clean wind.

02

With the combination of "RE" meaning to start again and "NEW" meaning new, "Renew" means to "replay".

ABOUT US

Under those circumstances, we plan to proceed with three major projects as follows:

Renew Labs is developing an eco-friendly ecosystem that unites people in all eco-friendly activities worldwide on a single platform and presents their efforts as meaningful, efficient, and productive. Furthermore, rather than just mitigating the effects of the climate catastrophe and offering them to humanity, we develop ways to address it by evaluating and applying the data produced by these operations.

01

Developing a blockchain platform system for the resource circulation ecosystem.

02

collect recyclable waste such as plastics and metals to create various eco-friendly products

03

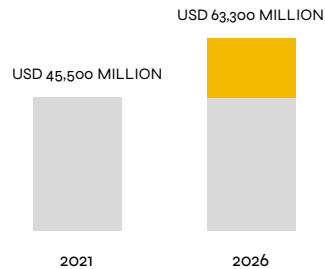
Last but not least, it is to build a community for it by carrying out various sustainable, eco-friendly projects.

BACKGROUND

Plastic Recycling Market

According to the report WHAT A WASTE 2.0 published by the World Bank in 2018, the amount of solid waste (solid waste generated in daily life) generated by various human activities was 2.01 billion tons in 2016. It is estimated that annual waste emissions will increase to 3.4 billion tons by 2050 due to careless urbanization, population growth, and rapid economic growth. This result predicts very serious environmental destruction on Earth.

[Global Plastic Recycling Market]
Market forecast to grow a CAGR of 7.5%



[REFERENCE] RESEARCH AND MARKETS
PLASTIC RECYCLING GLOBAL MARKET REPORT (2021.04)

Eventually, these enormous amounts of waste create soil pollution from landfilling, air pollution from incineration, and marine pollution from ocean dumping. Not only do they return to our ecosystem, but they also threaten humanity. And the costs of waste disposal and pollution recovery will continue to rise. It is clear that if humanity cannot manage waste wisely and radically increase the recycling of discarded resources, environmental pollution will continue to increase, and the future of humanity will face obvious consequences. However, fortunately, according to the April 2021 plastic recycling industry market report by Research & Markets, a global market research firm, the size of the plastic recycling market is expected to increase by 7.5 billion per year from \$45.5 billion (approximately KRW 59 trillion) in 2021 to \$65.3 billion (approximately KRW 85 trillion) in 2026. It is predicted that it will increase by 10%. In this way, recycling waste plastic is an essential part of the virtuous cycle of the environment and resources and is an essential duty of humanity.

BACKGROUND

Metal Can Recycling Market

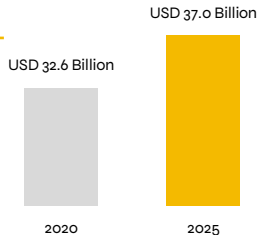
Another way to overcome the climate crisis is through recycling of aluminum and steel cans. In particular, aluminum cans emit a significant amount of carbon dioxide when first produced, but when recycled, they reduce carbon emissions by more than 80-90% and energy by more than 95%, making them a resource that can be recycled almost 100% without quality loss.

According to the Circle Economy's Circularity Gap Report, the size of the metal can market is estimated at \$27.6 billion (approximately KRW 36 trillion) in 2020 and will reach \$37 billion (approximately KRW 47 trillion) in 2025, with an average annual growth rate of 6.1%. Of these, only 8.6% of the resources used around the world were recycled in 2020, and 33% of aluminum was recycled, so the recycling efficiency of aluminum is very high. As such, the metal can market offers various advantages such as high recycling rate, long-term food quality preservation, and protection against contamination caused by light, oxygen, moisture, etc.

[Attractive opportunities F&B metal cans market]

CAGR

6.1%



[REFERENCE] MARKETS AND MAKRETS

FOOD & BEVERAGE METAL CANS MARKET REPORT (2020.03)



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WHITEPAPER

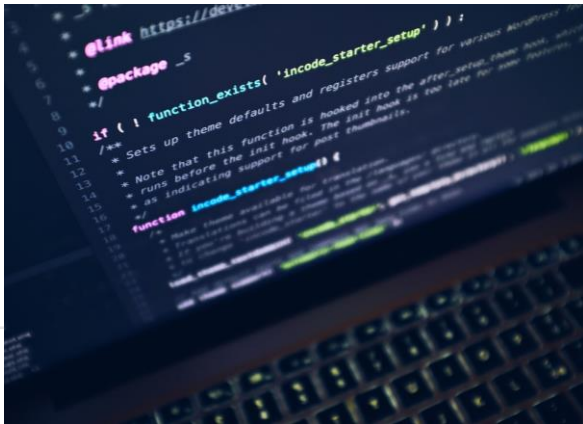
RENEW LABS SOLUTION

SOLUTION



Motivation

People are reluctant to participate in eco-friendly activities because they believe they are costly and time-consuming. RenewTok, a reverse vending machine, is an interactive, eco-friendly activity support machine designed to use the latest IT technology to make people's activities more meaningful and rewarding for their efforts. It is an eco-friendly, interactive activity support system. People will be strongly motivated to become environmentalists when they get rewards and incentives for participation that highlight the significance of environmental movements.



Smart Recycle

The RenewTok system, which effectively combines IoT and AI blockchain technology, allows users to produce smart separation emissions easily and quickly. The recyclables produced by users are classified through artificial intelligence's deep learning technology, and each user gets rewarded as the owner of their emission resources. The data created during this process is utilized in a variety of contexts, and these classified resources can be duplicated as new resources.

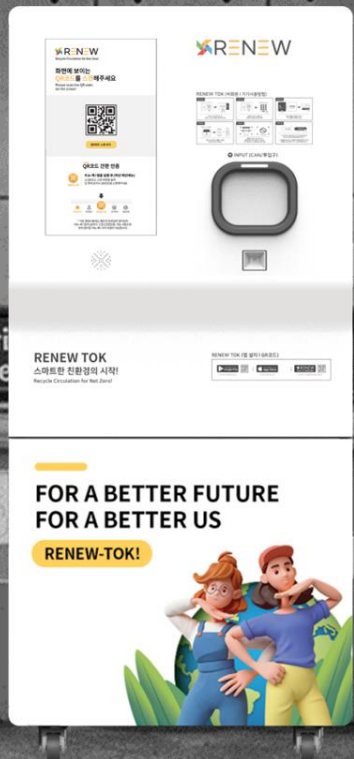


Simple & Easy

While current blockchain DApps offer numerous benefits, they also face a number of issues. Generally speaking, issues with excessive commission, sluggish transaction speeds, strange terminology, and operational annoyance are making them less accessible to regular customers. The RenewTok DApp was created as a solution to these issues by skillfully combining the benefits of quick transaction times and cheap commission with Web2's user-friendly UI/UX and Web3 authentication and compensation with the Layer 2 scaling solution, the Polygon (MATIC) chain.

RENEW TOK : AI REVERSE VENDING MACHINE





AI Reverse Vending Machine

RENEW TOK

RenewTok is a reverse vending machine that sorts & collects recyclable resources. It uses the latest IT technology, AI deep learning technology, to analyze resources and obtain only recyclable resources. Users can exercise smart disposal of wastes through RenewTok.

This device using IoT technology operates automatically based on the Internet, and all users who use this device to emit emissions can receive compensation through the RenewTok DApp.

The various resources released in this manner can be categorized as renewable or non-renewable, and the various data obtained and created here will be useful information depending on the specific purpose or intent. This data will eventually be used to solve environmental issues and form the foundation of big data services.

Recyclable Materials - cans/scrap metal/plastic

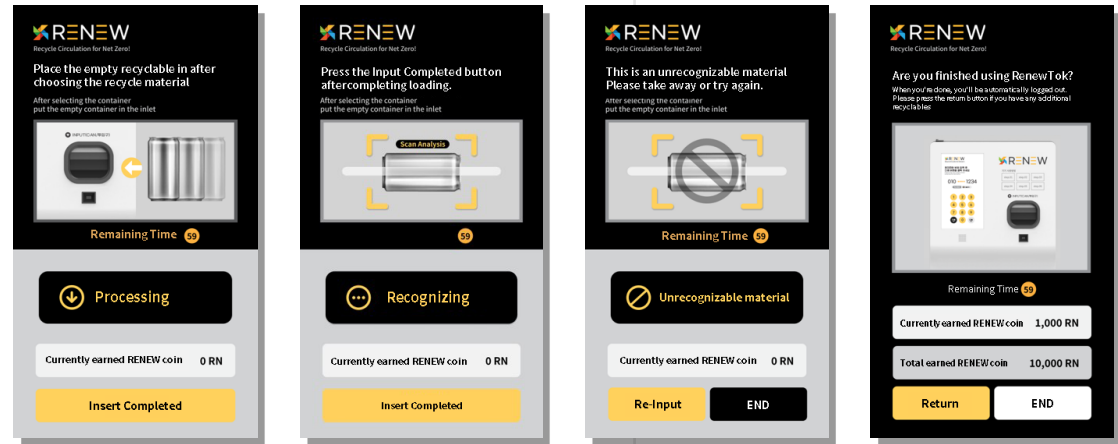
① 1st Model - Aluminum cans, Iron cans, PET bottle

※ After developing the MVP version model in July 2023, it is being tested for mass production.

② 2nd Model - batteries, plastics, paper, glass bottles, etc.

RENEWTOK

Key Features of RenewTok



- The Configuration of RenewTok – Reverse Vending Machine and a DApp (Web 2.0+Web3.0)
- Deep learning technology - data acquisition of recycling resources (types, quantities, status)
- IoT (Internet of Things) technology – automated operation and management based on the Internet
- Smart Emissions Rewards - Participants earn rewards in various forms (points, cash, Renewtoken, etc.)
- Building Big Data – Acquiring data such as recyclable materials and emission information
 - Product Analysis – Product Analysis by gender, age group, sector, etc.
 - Consumption patters analysis – consumption patterns using best and worst-selling data.
 - Market Information Analysis - Supply and Demand Forecast Analysis
 - New product prediction – informatization of data such as products, consumption, and markets to establish a reporting system for new product development, launch, marketing, supply and demand
- Communication Panel - Provides a variety of information such as communication, advertising, and public relations through the media panel.

Advantages of RenewTok

Real-time Data Collection

[illegible]

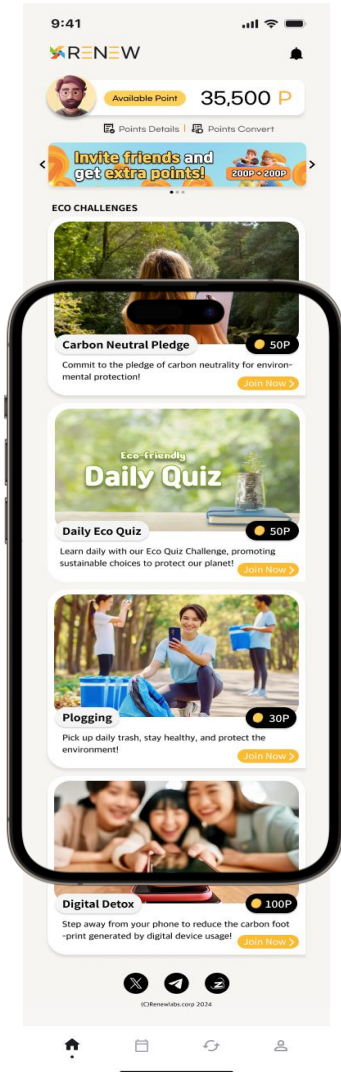
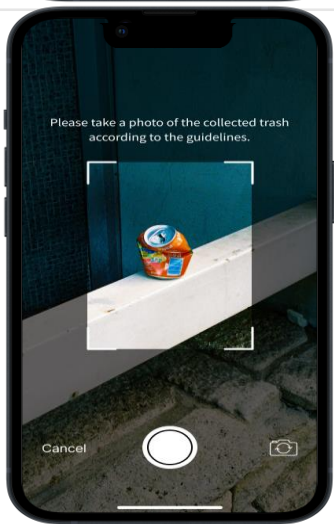
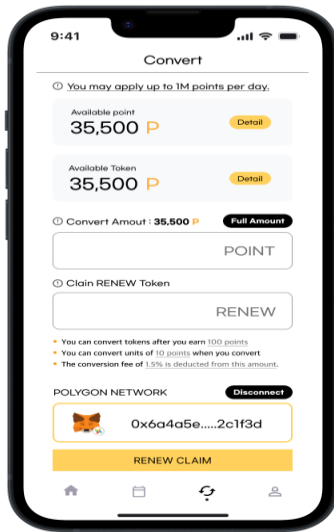
AI Deep Learning Technology

The diagram illustrates the proposed method for object detection. It starts with an input image of a dog on a bicycle. This image is processed by a 5x5 grid on input, which leads to a bounding box + confidence map. This map is then used to produce final detections.

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RENEWTOK DAPP



Eco-friendly Rewards app

RENEWTOK DAPP

RenewTok DApp operates on a Web 3.0 platform, allowing participants to engage in various eco-friendly activities online and receive rewards for their efforts. To ensure participants' ownership rights, the system supports crypto wallets like MetaMask. Users of RenewTok and the DApp can link their crypto wallets to authenticate eco-friendly activities and smartly dispose of recyclable resources, earning RenewTokens as a reward.

RENEW TOK DAPP

RenewTok App Features

01

Reward

EXPLAIN HOW THIS IDEA RELATES TO THIS SLIDE'S TITLE. AND HOW DOES IT TIE INTO THE OTHER IDEAS ON THIS SLIDE?

02

Profile Management

YOU CAN CHECK YOUR PERSONAL INFORMATION, RECYCLING HISTORY, RENEWTOK STATUS AND USAGE INFORMATION, REWARD MANAGEMENT, ETC., AND CONTINUOUSLY MANAGE YOUR PROFILE.

03

RVM Information

WHEN USERS SEARCH FOR THE RENEWTOK(REVERSE VENDING MACHINE) IN THE LOCATION NEAR WHERE THEY WANT TO DISCHARGE, ALL INFORMATION ABOUT THE LOCATION AND STATUS OF THE MACHINE IS PROVIDED TO HELP RECYCLE SMARTLY.

04

CO2 Reduction Tracker

THE VARIOUS ECO-FRIENDLY ACTIVITIES OF THE PARTICIPANTS ARE ALL AUTOMATICALLY CALCULATED AND SHOWN IN THE HISTORY OF CO₂ REDUCTION FIGURES.

Eco-Friendly Challenge



Plogging

30P

Pick up daily trash, stay healthy, and protect the environment!

[Join Now >](#)



Digital Detox

100P

Step away from your phone to reduce the carbon footprint generated by digital device usage!

[Join Now >](#)



Carbon Neutral Pledge

50P

Commit to the pledge of carbon neutrality for environmental protection!

[Join Now >](#)



Daily Eco Quiz

50P

Learn daily with our Eco Quiz Challenge, promoting sustainable choices to protect our planet!

[Join Now >](#)

The Eco-Friendly Challenge provides an opportunity for anyone around the world to participate in environmentally friendly activities and receive rewards. Participants can earn rewards by taking photos of their recyclable resources before separating them and uploading various resource images, even if they do not have a RenewTok device.

Additionally, by completing various eco-friendly challenges and recording the amount of carbon emissions they have reduced and the number of times they have participated, they can be motivated to engage in the challenges.

The diverse data collected in this way is registered on RenewLabs' cloud AI server and becomes a dataset. This dataset, created through the analysis of various recyclable resources from around the world, will be used as highly meaningful material.

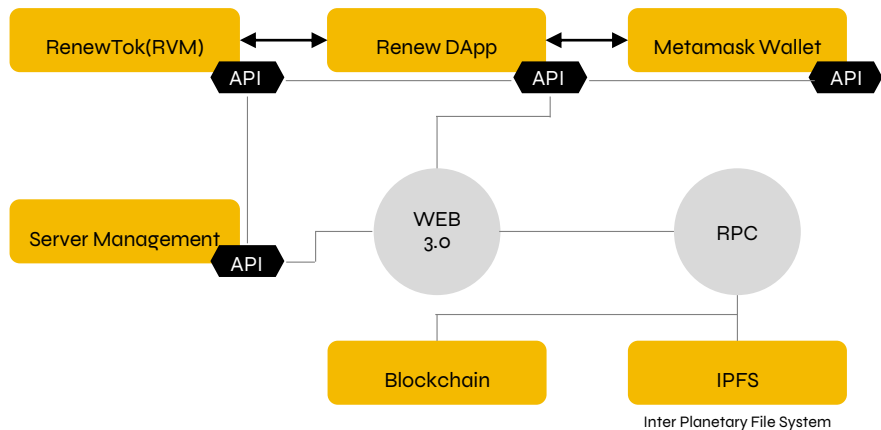
- Litter Picking - Plogging: A challenge to protect both health and the environment through plogging.
- Digital Detox: A challenge to reduce carbon emissions caused by the use of digital devices.
- Carbon Neutrality Pledge: A pledge to practice the 3R movement for a resource-circulating society.
- Eco-Friendly Quiz: A fun challenge to learn environmental knowledge every day.

ARCHITECTURE


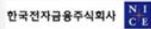











RenewTok DApp Architecture

DApp Architecture is an architecture that connects RenewTok DApp and RenewTok Machine, created by integrating Web 2.0 and Web 3.0 technologies.

RenewTok and DApp are linked to each other to allow participants in eco-friendly activities to process the separation and discharge of recyclable resources off-chain (Web2) for quick processing in the process from separation of recyclable resources to compensation, and the compensation part for the activity and The same important records are recorded on-chain (Web3) using the DApp's blockchain network. Each piece of information is collected and converted into data in real time, and the resulting data sets of various information will be provided to recycled product producers and officials.



PARTNERS

Category	Partner's name	Intoduction	Expected Effects	Logo
IT Development Consulting Partner	DK Techin (Kakao Group) https://dktechin.com/	IT System Integration (SI) specialist company	Enhanced IT development capabilities and support for domestic transactions.	
	NICE TCM (NICE Group) https://www.nicetcm.co.kr/	Vending Machine development company	Support for hardware development and enhancement of vending machine capabilities.	
Hardware Development Partner	SIZL https://sizl.co.kr/	Smakt Factory development company	Support for hardware development and Sales.	
	Diosoft Lab https://www.dosoftlab.com/	S/W specialist development company	Support for software development and enhancement of RenewTok device functionality.	
Blockchain Development Partner	HBLAB https://kr.hblabgroup.com/	Blockchain technology development company	Implementation of blockchain technology and expanded market reach in Southeast Asia.	
Investment and Management Consulting Partner	Donghyun Accounting Firm http://www.dohy.co.kr/	Accounting consulting specialist	Ensuring transparent management through accounting audits and tax-related consulting support.	
	Oxford Metrica https://www.oxfordmetrica.com/	Global investment advisory firm	OTC listing support and overseas investment	
	HypercomiC https://play.hypercomiC.io/Webtoon	Web3-based webtoon platform operator	Strategic marketing support to enhance project visibility and engagement.	
Sales Partner	Smart36 https://www.smart36.co.kr/	Rental sales specialist	Increased sales through rental programs and specialized sales expertise.	
	KUECA https://www.kueca.org/	Korea-Ukraine Economic Cooperation Association	Facilitating the acquisition of eco-friendly products and resources for reconstruction projects in Ukraine.	
	OmegaSola https://omega-solar.com/	Eco-friendly equipment development company	Market expansion and increased sales in Vietnam and Southeast Asia.	
	Terra Factory http://terafactory.kr/	Eco-friendly electric vehicle and battery pack development company	Support for eco-friendly industry marketing and recycling resource collection and delivery.	
Environmental Business Partner	PMGROW https://pmgrow.co.kr/	Eco-friendly energy supply service (EV Battery pack, ESS development)	Provide technology and services that maximize the efficiency of energy resources while responding to climate and environmental crises.	



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WHITEPAPER

ROADMAP & TOKENOMICS

ROADMAP

- Q2
 - Architecture of the business model
 - Recycling related market research
 - Development of prototype "Renew-Tok" Robot
- Q4
 - Development "Renew-Tok" Robot MVP version completed

2023

-
- Q1
 - Launch official "Renew Lab" website
 - Launch of SNS marketing
 - Released "Renew-Tok" DApp beta version
 - Q2
 - Development of the official version of "Renew-Tok" Robot
 - Q3
 - Update the "Renew-Tok" DApp add-on
 - Q4
 - Revitalizing SNS Communities

2024

-
- Q1
 - Development completed for "Renew Wallet"
 - Global CEX Listing Promotion
 - Q2
 - Global CEX Listing Promotion
 - "Renew-Tok" Personal MVP Version to be developed
 - Q3
 - Official "Renew-Tok" robot sales start
 - Official "Renew-Tok" DApp revealed
 - Q4
 - "Renew-Tok" Robot Enters International Market
 - Expanding partnerships with global eco-friendly companies

2025

TOKENOMICS

Ticker : RENEW

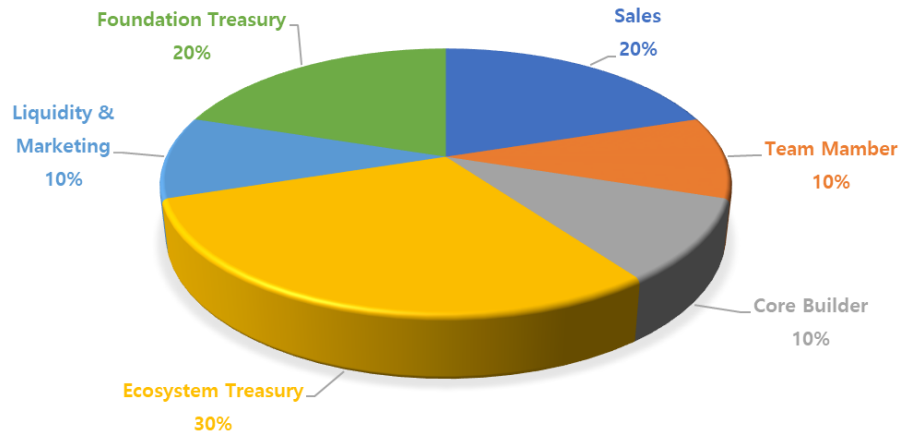
Network : POLYGON

Total Supply : 1,000,000,000

RENEW TOKEN IS UTILITY TOKEN BASED ON POLYGON, WHICH ALLOWS YOU TO RECEIVE REWARDS FOR PARTICIPATING IN ECO-FRIENDLY ACTIVITIES. THIS TOKEN IS REQUIRED FOR THE CONCLUSION AND EXECUTION OF SMART CONTRACTS, AND PLAYS A KEY ROLE IN SUPPORTING AND ACTIVATING THE ECONOMIC ECOSYSTEM OF **THE RENEW PLATFORM**. IN ADDITION, YOU CAN OBTAIN DISCOUNTS AND BENEFITS FOR VARIOUS SERVICES AND PRODUCTS PROVIDED WITHIN THE PLATFORM.

Release Schedule

Token Allocation	% of Total Supply	Amount of Token	Unlock % of This Allocation at TGE (Month)	Cliff Period (Month)	Vesting Period (Month)
Sales	20%	200,000,000	10%	7	10
Team Mamber	10%	100,000,000	0%	12	36
Core Builder	10%	100,000,000	0%	12	36
Ecosystem Treasury	30%	300,000,000	20%	6	60
Liquidity & Marketing	10%	100,000,000	100%	0	0
Foundation Treasury	20%	200,000,000	0%	6	60
Total	100%	1,000,000,000			



PRECAUTIONS AND DISCLAIMERS

This whitepaper serves solely to disseminate information about the business model and associated technology envisioned by the RenewLabs team for the recycling circular platform project. It does not contain any proposals for asset purchases or sales. Therefore, it must not be construed as a solicitation for the issuance or investment of cryptocurrencies/NFTs. RenewLabs maintains all rights, including copyrights and other intellectual property rights, over all content and materials presented herein.

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RenewLabs does not intervene in any manner in peer-to-peer transactions involving tokens and NFTs acquired by users.

Any issues arising from peer-to-peer transactions are not the responsibility of RenewLabs.

PRECAUTIONS AND DISCLAIMERS

Tokens and NFTs may be acquired and purchased through various methods, and the methods, timing, and scale of acquisition are subject to change at any time, contingent upon the project's circumstances. Ecosystem circulation may be delayed, or other tangible and intangible losses may occur due to reasons beyond RenewLabs' control, such as third-party system attacks, natural disasters, or other force majeure events.

Users should anticipate and acknowledge potential technical challenges, bugs, defects, feature deficiencies, attacks, and other factors affecting this project. Therefore, RenewLabs disclaims any responsibility for direct, indirect, special, or consequential losses incurred by users through their utilization. Tokens are typically accessed using the private key corresponding to the wallet address where the tokens are stored. If the private key or wallet address is lost or stolen, tokens associated with the user's address cannot be recovered and will be permanently lost.

Consequently, RenewLabs bears no responsibility for users' risks due to the loss or leakage of wallet addresses or private keys.

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MOVEMENT FOR A BETTER
FUTURE**