

RENEWLABS :WHITE PAPER

**RESOURCE
RECIRCULATION FOR
NET ZERO!**

Blockchain circular resource project for climate crisis

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RENEWLABS: CREATING A SUSTAINABLE FUTURE



ABOUT US



One of the biggest issues in the world today is E.S.G (Environmental, Social, Governance). From the past to the present, companies have caused numerous problems in order to blindly create profits, which has led to a crisis for humanity. E.S.G is a new paradigm created as a promise of humanity to solve these problems. Among these E.S.G paradigms, the most important and priority element is the environment, which is a problem of human survival that we must solve.

The answer to this problem is humanity. In other words, governments of each country, companies, and ordinary people must become one entity to minimize environmental pollution. To do this, we must minimize waste generation, manage waste smartly, and increase recycling rates, as well as continue sustainable and diverse eco-friendly activities. Renew Labs will create a global eco-friendly community based on sustainable business and transparent management with many partners pursuing eco-friendliness and general participants (users).

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.

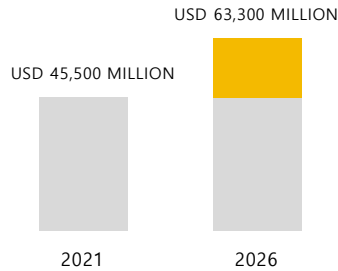
BACKGROUND

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.

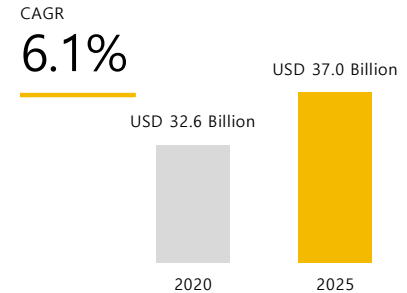
BACKGROUND

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]



[REFERENCE] MARKETS AND MAKRETS
FOOD & BEVERAGE METAL CANS MARKET REPORT (2020.03)



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RENEWLABS 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 A.I. 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.

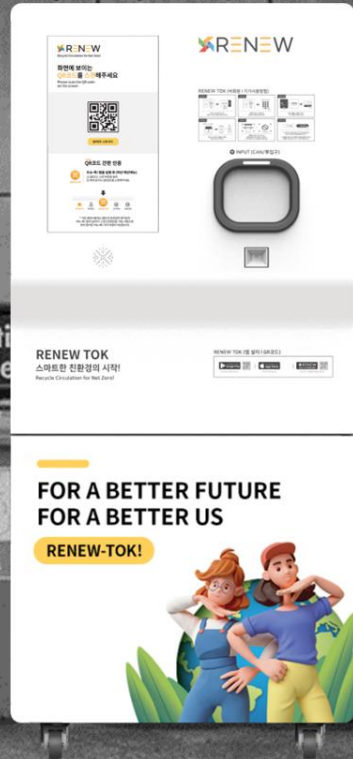


Simple & Easy

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.



RENEWTOK : A.I REVERSE VENDING ROBOT



A.I Reverse Vending Robot

RENEW TOK

RenewTok is a reverse vending Robot 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

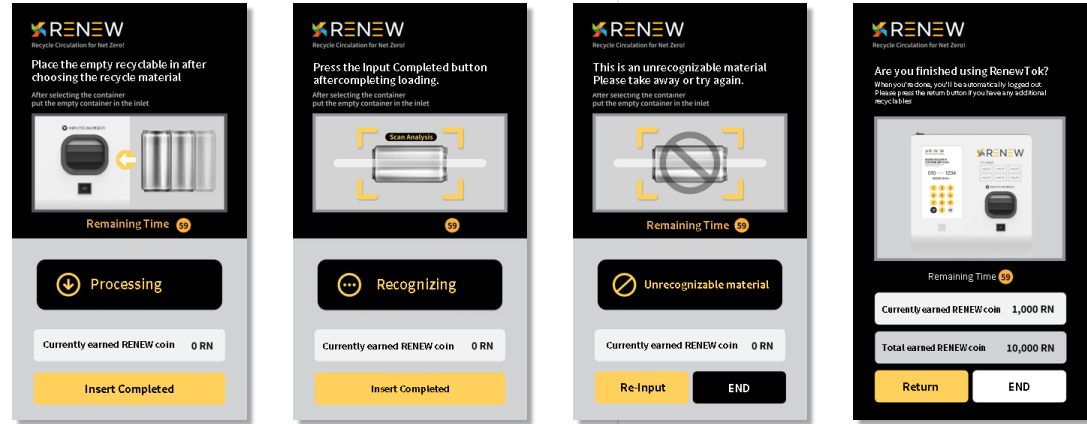
① 1st Model - Aluminum cans, iron cans, PET bottle

※ 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.

RENEW TOK

Key Features of RenewTok



- The Configuration of RenewTok – Reverse Vending Robot 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.

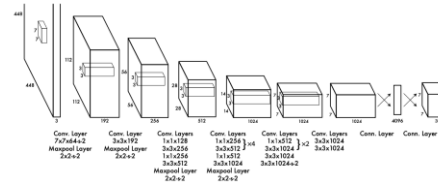
RENEWTOK

Advantages of RenewTok

01

Real-time Data Collection

RenewTok is equipped with IoT technology, allowing for round-the-clock monitoring. This technology can provide various data on device status in real time and can be controlled in real time through a central control system, providing efficiency such as reducing energy consumption and stable device management. In terms of securing recyclable resources, a wide variety of resource data can be collected in real time through RenewTok and DApps. The RenewTok management server which is cloud-optimized and continuously collects data and delivers it to a central location for analysis, interpretation, and task performance, enabling the provision of a variety of services.

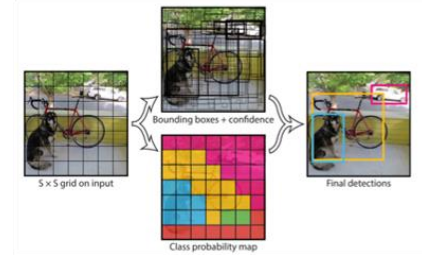


02

A.I Deep Learning Technology

RenewTok Robots are made with YOLO (You Only Look Once) technology. This technology uses object detection technology to find and distinguish objects within the camera's field of view. After checking the images of the objects in the input field of view at a high speed, each object is classified and leveled.

Using this technology, RenewTok gathers experiential activity data regarding who, what, when, where, and how many recyclable resources were produced—and, if the user so chooses, how many—and turns it into data using a deep neural network. Using Renew Labs' big data solution, the globally secured data will be utilized to examine consumer behavior and product recycling trends in order to create new goods.

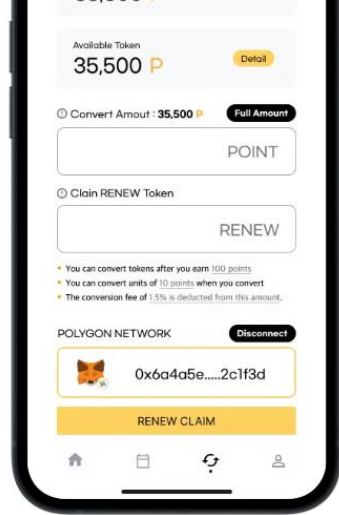




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RENEWTOK DApp



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 Renew Wallet.

Users of Renew Tok and the DApp can link their crypto wallets to authenticate eco-friendly activities and smartly dispose of recyclable resources, earning RenewTokens as a reward.

This approach creates a new token-based economic system, providing economic incentives to participants and supporting and expanding the recycling ecosystem.

RENEWTOK DAPP

RenewTok App Features

Basically, the App is Web2-based, allowing participants to log in and receive rewards for eco-friendly activities, and supports a crypto wallet (Renew Wallet) to return ownership rights to specific participants. Users of the RenewTok app and devices can receive rewards with Renew Tokens by logging in with their crypto wallet, using the app, verifying recycling activities, and smartly discharging recyclable resources. This will form a new economic system through tokens, and participants will be provided with economic incentives as rewards for their activities, allowing Renew Labs to support and expand its own recycling ecosystem.

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) ROBOT IN THE LOCATION NEAR WHERE THEY WANT TO DISCHARGE, ALL INFORMATION ABOUT THE LOCATION AND STATUS OF THE Robot 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 Renew Labs 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.

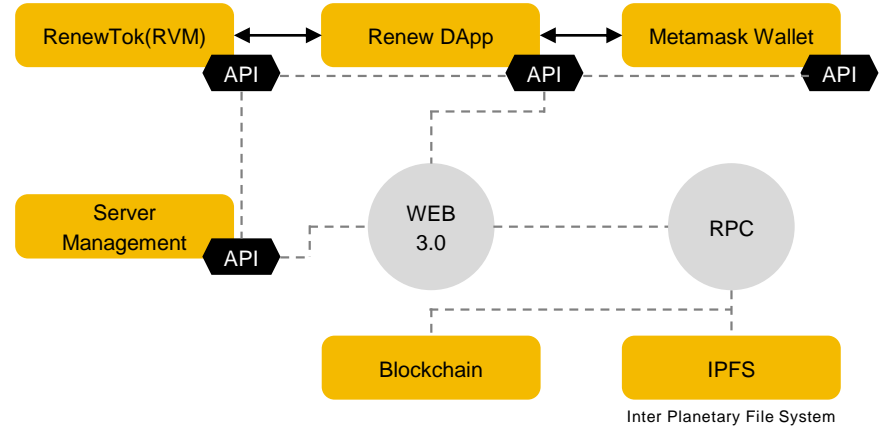
- **Litter Picking-Plogging:** A challenge to protect both health and the environment through plogging
- **Digital Detox:** A challenge to reduce carbon emissions caused by the use of digital devices.
- **Carbon Neutrality Pledge:** A pledge to practice the 3R movement for a resource-circulating society
- **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 Robot, 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/	Smart 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.	
Marketing 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.	
Environmental Business Partner	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.	
	PMGROW https://pmgrows.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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TOKENOMICS



TOKENOMICS

Ticker: RENEW

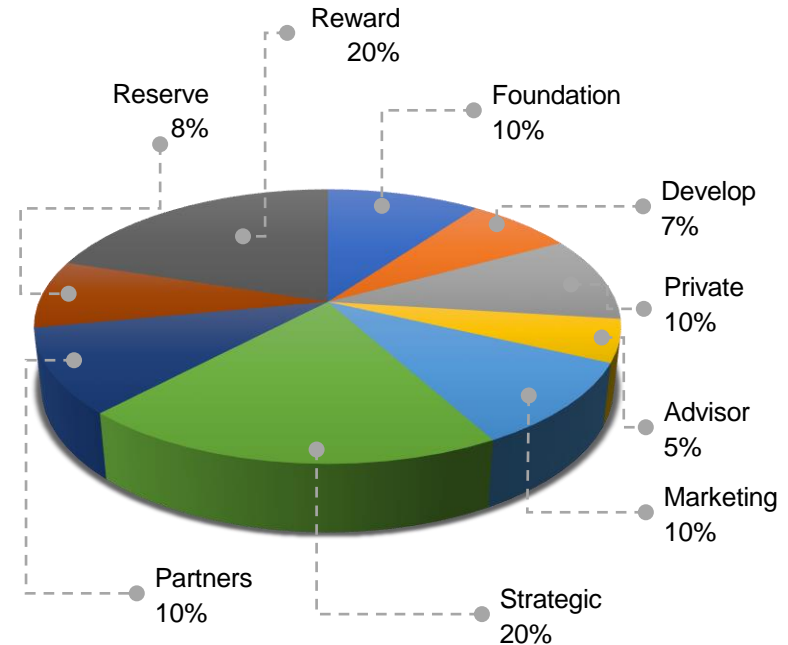
Network: POLYGON

Total supply: 10,000,000,000

RENEW token is a 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	Amount of Token	% of Total Supply	Unlock % of This Allocation at TGE (Month)	Cliff Period (Month)	Vesting Period (Month)
Foundation	100,000,000	10%	0%	12	36
Develop	70,000,000	7%	0%	12	36
Private	100,000,000	10%	10%	0	12
Advisor	50,000,000	5%	0%	12	20
Marketing	100,000,000	10%	8%	0	24
Strategic	200,000,000	20%	1.37%	0	60
Partners	100,000,000	10%	0%	12	48
Reserve	80,000,000	8%	0%	6	20
Reward	200,000,000	20%	1.37%	0	60
Total	1,000,000,000	100%			





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ROADMAP

ROADMAP

Q2	<ul style="list-style-type: none"> • Architecture of the business model • Recycling related market research • Development of prototype "Renew Tok" Robot 	2023
~ Q4	<ul style="list-style-type: none"> • Development "Renew Tok" Robot MVP version completed 	
<hr/>		
Q1	<ul style="list-style-type: none"> • Launch official Renew Labs website • Launch of SNS marketing • Released "Renew Tok" DApp beta version 	2024
Q2	<ul style="list-style-type: none"> • Development of the official version of "Renew Tok" Robot 	
Q3	<ul style="list-style-type: none"> • Update additional features of "Renew Tok" DApp 	
Q4	<ul style="list-style-type: none"> • Activate SNS community 	
<hr/>		
Q1	<ul style="list-style-type: none"> • Renew Wallet development completed • Promotion of listing on overseas CEX exchanges 	2025
Q2	<ul style="list-style-type: none"> • Promotion of listing on overseas CEX exchanges • "Renewtalk" Personal MVP Version Development Planned 	
Q3	<ul style="list-style-type: none"> • Official "Renewtalk" Robot Sales Start • Official "Renewtalk" DApp Released 	
Q4	<ul style="list-style-type: none"> • Expansion of Renew Tok" Robot into oversea market • International Partnership Agreement 	

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A BETTER FUTURE**