

WEATHER DATA TRADING PLATFORM

# WEATHER TREE WTTR

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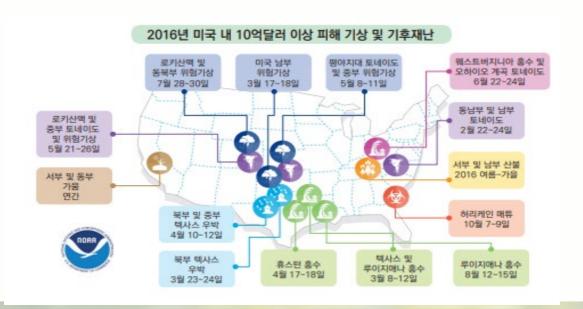
## **Background and Necessity**

#### 1-1. what is Meteorological Observation?

Weather observations are made in real time every day through various methods such as satellites, weather radar, and ground stations. It consists of various methods such as ground observation, known as a white leaf, observation of Radio Sonde, which floats with observation equipment on balloons, and remote observation using radar and satellites. Ground observatory typically observe 'temperature', 'air pressure', 'wind direction and wind speed' and 'river'. Here, " 'air pressure " provides the most basic information about weather forecasts, and at the mid-level, weather forecasts start with locating low and high pressures. Ground observation seems relatively easy, but the installation and operation of the observatory is not so straight forward. Regular observatory can only be installed in areas with certain conditions (for example, points off the road) and equipment is also expensive. Above all, verification by weather experts is essential to secure the reliability of the data.

#### 1-2. Necessity of Weather Observation

Currently, weather disasters have killed about 606,000 people worldwide in the past 20 years (1995-2015), and the economic damage caused by them is estimated to be USD 250-300 billion per year. (National Weather Service Enterprise Analysis Report)



#### 1-3. Current State of Weather Observation

Due to the need for expensive equipment and specialists, weather observations are typically conducted in public sectors such as the Meteorological Agency. However, the spatio-temporal distribution of observation networks varies greatly in each country. In some countries, such as Central Asia, South America, and Africa, even regular observation networks are not properly equipped. There is a problem that the location of the observatory is not homogeneous even in areas where the pipe networks are already configured For example, the China Meteorological Agency operates about 700 Ground observatory, but the number of stations is significantly lower in some areas, including Tibet and North China.

High-resolution observation is essential to increase the accuracy of weather forecasts, even in areas with well-structured a regular observation network. Regular observations carried out in the public sector are usually optimized for weather forecasts of tens to hundreds of kilometers, and above all, observations are made only at designated times and places.

On the other hand, major institutions around the world (e.g. European Mid-term Forecasting Centers) are improving the spatial resolution of numerical models used in weather forecasts to around 10 km, and based on this, they provide hourly forecasting information.

To realize such high-resolution weather forecasts, high-resolution observations must be performed separately in addition to normal observations. High-resolution observation is an essential element for monitoring weather and fine dust, especially on an urban scale. Cities can experience very different weather Phenomenon just a few kilometers away because of their diverse and complex distribution of buildings.

For example, the urban heat island phenomenon varies greatly depending on the distribution of buildings in the city center.

In addition, the distribution of air pollutants is also very complex with the flow of air. Considering rapid urbanization, the need for detailed urban weather information is increasing day by day.

To address this, some high-resolution urban weather observations are being carried out, but the reality is that they are only being attempted in densely populated mega cities due to huge costs.

# 02

### **Weather Information Industry Overview**

The weather information market, which was monopolized by the state as part of public services, is rapidly increasing in size as it creates new values in the private sector. The estimated value of the currency of the weather-affected part of the U.S. gross domestic product reaches 1,334 trillion won, and the estimated value of the currency of the weather data is about 20 trillion won (NWS Enterprise Analysis Report 2017).

In 2015, the total sales volume of the weather market was 4 trillion to 5 trillion won, and in particular, the sales volume of the weather information service market is estimated to be about 2.5 trillion won (AMS 2012, State of the Weather and Climate Enterprise).

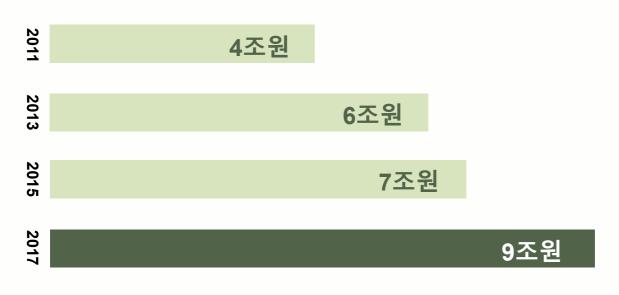
The U.S. National Weather Service's annual budget is around 1 trillion won, and the total amount of weather-related budgets in countries with modern weather observations is estimated to reach tens of trillion won. Judging from the recent merger and acquisition cases of weather information companies, the total corporate value of private weather information companies is estimated to be more than 9 trillion won and is expected to grow by 10-15% every year. (University Corporation for Atmospheric Research)

#### 2-1. Expansion of Weather Information Services

Recent mergers and acquisitions between IBM and Monsanto clearly demonstrate the growth potential of weather information. IBM acquired 'Weather Company', a weather information service company, in 2016 for a \$2 trillion enterprise value, to combine IBM's global cloud with The 'Weather Company's weather data platform to provide big data services that include weather variables to corporate customers.

Agricultural giant Monsanto acquired 'Climate Corporation' in 2013 at an enterprise value of 930 billion won to fuse weather, hydrological and climate information with other agricultural information to create potential value. Weather data, combined with management data, plays a key role in making management decisions at a time when weather data is creating innovative value in a wide range of industries and is becoming an important variable in management decisions.

Public safety will also develop as private weather companies increase their ability to support weather-related decisions, and more weather companies are expected to use technologies such as primary weather data, operational data, smart devices, machine learning, and analytics to provide customized weather forecasting and decision support services



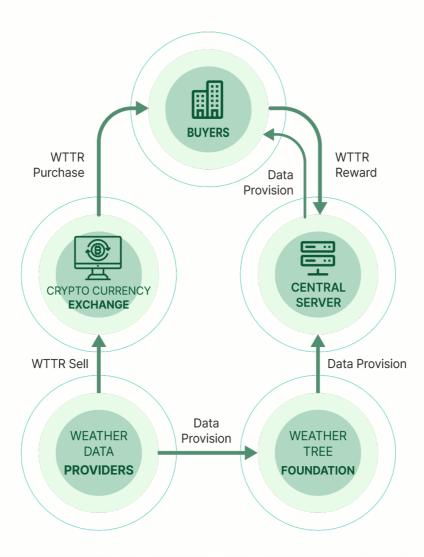
미국 민간 기상정보 사업자의 총기업가치 추정 (2012년도 기준)

# 03 WEATHER TREE Coin

WEATHER TREE is easy for anyone in the world to produce weather data and anyone can buy it at a reasonable price. Observations are made in real time around the world, and this data is released in real time without the certification of national institutions.

The released data is systematically managed through big data technology and transparently traded through blockchain.

WEATHER TREE FOUNDATION also provides data collection and verification, and standards for transactions. Unlike national and industrial meteorological observations that require large facility investments, crowdsourced meteorological observations can be easily performed anytime, anywhere.



### 12. The Business Model of WEATHER TREE



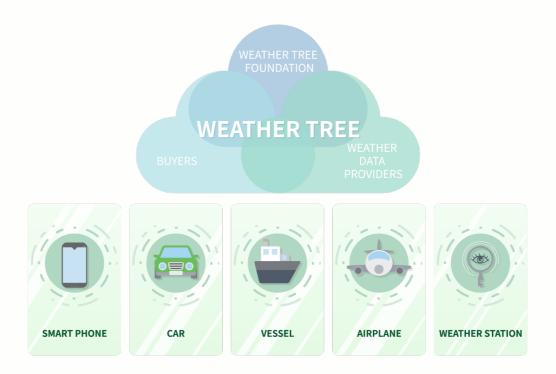
#### 4-1. A New Paradigm for Meteorological Observations

The Weather Company, which IBM paid 2 trillion won for its corporate value, has 200,000 observation points worldwide. Observation data provided at 200,000 observation points is becoming the starting point for the weather information market worth trillions of won.

The crowdsourcing-based weather observation model that WEATER TREE aims to implement will allow observers to participate in billions of smartphones, billions of cars, 20,000 planes, 50,000 ships, and various small weather stations around the world.

Various individual and corporate observers will use readily available equipment to collect weather data and provide it to coin platforms. The collected observations will be verified and managed through big data technology, and will be sold in real time to various individuals, private companies, and the public sector that need them.

All compensation and transactions occurring at this time will proceed transparently through blockchain technology.



#### 4-2. WEATHER TREE Ecosystem

The ecosystem of WEATHER TREE consists of 'Weather Data Providers', which provide real-time weather observations, 'buyers' who purchase data, and 'WEATHER TREE FOUNDATION', which verifies the quality of the observations and acts as a transaction relay.

Observers transmit data in real time to 'WEATER TREE FOUNDATION' verified and databaseized through big data technology. Whenever the quality of observation is verified, the compensation given to the observer is made with coins, and consumers can purchase the data in coins. Data observed by an unspecified number of people with different equipment needs to be verified. Therefore, all verifications are made at the 'weather tree foundation', and data management and transactions are also made through the 'weather tree foundation'.

This is a difference from the general blockchain aimed at decentralization, but it is a minimum measure to ensure the quality of weather data. This is because weather data is very difficult to be verified by the general public, not experts, due to its nature.

#### Weather Data Providers

Individuals and companies conducting meteorological surveys in real time using a variety of devices (smart phones, cars, aircraft, ships, aircraft,) the producer, who share the observation role. Observation is done consciously or unconsciously.

For example, the WEATHER TREE app installed on the smartphone can automatically measure the air pressure every 30 minutes and transmit it to WEATHER TREE FOUNDATION, and can also be taken and transmitted by the observer himself

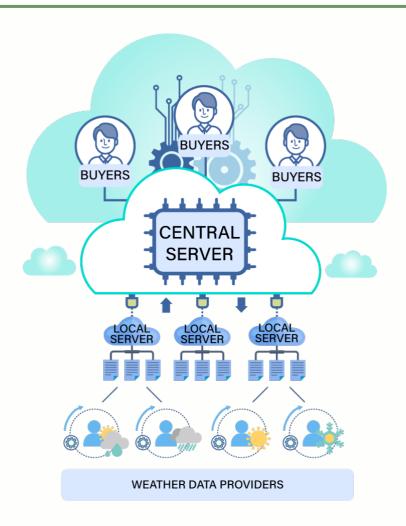
In addition, a ship and aircraft observation network that requires corporate participation has already been established, and we intend to include WEATER TREE in this network to provide high value-added data to the WEATER TREE Foundation.

#### **Buyers**

Weather information providers can process high-resolution observations from WEATER TREE to provide real-time urban and road weather information. For example, meteorological data observed in an unspecified number of vehicles can be used directly in the vehicle's navigation system (including autonomous vehicles).

When artificial intelligence technology (IBM Watson or Google Deep Learning Algorithm) is applied to WEATER TREE's data, ultra-short-term local predictions can also be predicted. WEATER TREE Real-time Observation WeATER TREE data can be utilized. Data can also be used directly to realize smart cities. Real-time weather data utilization is also high in the aviation and shipping industries, and airlines will be able to monitor the weather and flight altitude air currents around the airport in real time using WEATER TREE data.

Companies that recommend routes for large ships will also be able to monitor and predict marine weather conditions around the world using WEATER TREE data.



#### WEATHER TREE FOUNDATION

WEATHER TREE FOUNDATION has a number of roles. Real-time observation data will be verified and databaseized, and the accuracy of observation information will be blockchain based on the verification results. It will also provide rewards (coin) for successful observation and play a role in connecting consumers and observers. WEATHER TREE FOUNDATION will operate a local server and a central server. The local server serves as a repository for raw data and as a temporary repository for quality verification on the central server, while the central server is responsible for verifying, managing, and distributing the local server's data. The central server's most important role is the quality verification of individual observations. Real-time quality verification for each variable is carried out through the following three steps First, refer to regional climate values. Second, validate against simultaneous ambient observations, and finally apply machine learning algorithms to ensure the reliability of the data. Machine learning is constructed using various numerical model data as well as observation data. Finally, validated data will be managed and delivered by a central server using big data technology.

# 05 WEATHER TREE Distribution

WEATHER TREE utilizes blockchain technology for "transparent observation data management," "easy data sales," and "quick rewards."

We create and pay coins based on the blockchain, so anyone can check the details and cannot modify them.

Buyers can purchase observations anywhere in the world by paying WEATHER TREE.

WEATER TREE there are no exchange rate and remittance problems that can occur in existing payment methods. In addition, all transaction details are recorded on the blockchain and managed transparently, and no separate contract or broker is required in this process.



#### 5-1. Distribution and Use of Funds Plan

**Coin Name: WEATHER TREE** 

Sim Bol: WTTR

Total Supply: 300,000,000

#### - Early Investor 10%

Incentives are provided only to early buyers as a means of increasing the engagement and interest of many users in the early stages. This investment will contribute to the development of WEATHER TREE FOUNDATION, and additional coins will be paid according to the purchase quantity section of the coin.

#### - Advisor & Team 10%

10% of the total issuance is allocated to founders and team members who contributed to WEATER TREE. Coin are allocated according to their contribution, and 50% will be unlocked after 12 months from the date of receipt and 50% after 24 months.

#### - Marketing 10%

10% of the total issuance will be allocated to marketing to establish a system to operate the weather information service business of 'WEATHER TREE FOUNDATION' and expand the base of observers

#### - Coin Sale 15%

It will be sold by applying the lock-up period.

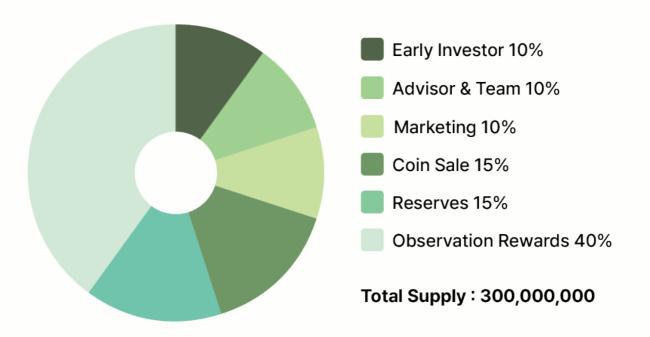
#### - Reserves 15%

15% of the total issuance is owned by the company. It will manage 15% of the total issuance to maintain company ownership.

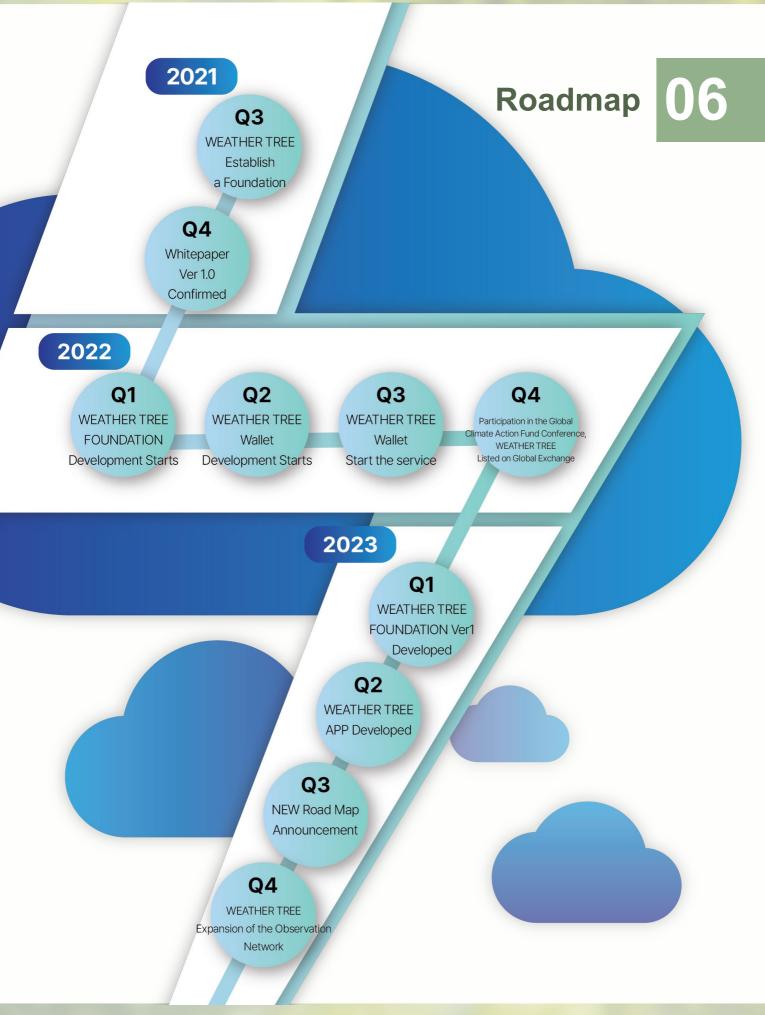
#### - Observation Rewards 40%

40% of the total issuance is allocated to the observational rewards of WEATHER TREE. This is the reward that various observers receive by performing weather observations.

Total Supply		300,000,000
Early Investor	10%	30,000,000
Advisor & Team	10%	30,000,000
Marketing	10%	30,000,000
Coin Sale	15%	45,000,000
Reserves	15%	45,000,000
Observation Rewards	40%	120,000,000
Total	100%	300,000,000



Purchase quantity	Initial Investor Additional Incentives
1~10,000	10%
10,001~30,000	20%



# **07** Escape Clause

The team and stakeholders of WEAHTER TREE Inc. will do their best to ensure the success of the project. However, even if the development schedule presented on the roadmap is observed and the service is started, the project may not be as successful as expected due to a lack of public interest or changes in the external environment. It should therefore be noted that individuals and businesses investing in WEATER TREE pose significant investment risks and should not participate in WEATER TREE investments if they cannot afford it

- 1. It covers the summary and introduction of the WEATHER TREE that the Weather Tree is preparing. Therefore, WEATER TREE Inc. will not be responsible for any particular decisions you make in accordance with what is stated in the White Paper. This means that this document is not intended to be an investment invitation, but to share the vision of WEATER TREE Inc. There is no statement or guarantee of accuracy in connection with this White Paper, and WEATER TREE Inc. is not responsible for this.
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- **3.** WEATHER TREE Inc. including directors, agents, employees, contractors, and sales partners, is not responsible for any kind of direct or indirect damage that may occur under the information contained herein, as follows
  - (1) Accuracy and completeness of the contract in accordance with the applicable white paper
  - (2) Errors or omissions in the white paper
  - (3) Unable to access white paper due to unconfirmed cause
- **4.** WEATHER TREE Inc. shall not be fully responsible for any of the following matters that may arise from any decision-making act made using the information contained herein
  - (1) Profits, profits, liabilities, and any other form of monetary damage
  - (2) Income, sales, capital reduction, debt, and other losses incurred during business transactions, business activities, and operating profit-related activities
  - (3) Data loss or corruption
  - (4) Collateral or special damages
  - (5) Wasted or lost administrative time
  - (6) Indirect or inevitable damage

- **5.** WEATER TREELnc. reserves the right to make changes to this White Paper without prior notice in accordance with ongoing WEATER TREE, market changes, technological advances, ICOs or Coin regulations. However, WEATER TREE Inc. is not obligated to inform or report to the reader of Incident, 'WEATHER TREE FOUNDATION', future plans, changes in estimates, or changes within the margin of error as specified in this white paper.
- **6.** I would like to inform you that information on areas such as commercial law, taxation, regulation, finance, and accounting is not advice. The purchase of WEATHER TREE can result in material losses, including material assets paid to buyers to purchase WEATHER TREE. Prior to purchasing WEATHER TREE, buyers are encouraged to consult tax, regulatory, financial and legal experts on potential risks, revenues, and the consequences of WEATHER TREE transactions.
- **7.** It is entirely up to the WEATHER TREE buyer to determine the legal possibility of disposing of other issues, such as income taxes, and overseas exchange, which may arise regarding the acquisition and disposal of WEATHER TREE within his/her legal jurisdiction.
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WEATHER TREE Inc. notifies buyers of a number of risks, including the risk of losing the amount of WEATHER TREE purchases. The accuracy of the information on risk or uncertainty written below is not guaranteed. Purchaser is deemed to have agreed to purchase and recognize the current state of risk without any warranty of WEATHER TREE, apparently as the sale and possession of WEATHER TREE.

- **1.** Blockchain risk: Blockchain system congestion can slow or invalidate deals. In particular, smart contracts in charge of issuing and distributing WEATER TREE are based on Ethereum blockchain technology. Ethereum protocols may have weaknesses and weaknesses, and various bugs may occur, such as the loss of WEATER TREE. This Ethereum blockchain problem can also cause material damage to WEATER TREE Inc. and WEATER TREE buyers.
- **2.** Personal Information Risk: User's personal information is required for distribution and control of WEATHER TREE in the buyer's electronic wallet. Therefore, if personal information is leaked, the WEATHER TREE in the buyer's electronic wallet may be leaked. Moreover, due to the leakage of buyer's personal information, a third party may steal WEATHER TREE by browsing the buyer's ewallet.
- **3.** Security Risks: Like all other cryptocurrencies, Ethereum is vulnerable to mining attacks such as 'double payment attacks' or '51% attacks'. Hackers or other malicious groups can attack WEATHER TREE Inc. or WEATHER TREE in the same way as above, and successful blockchain attacks can seriously damage WEATHER TREE deals and WEATHER TREE.
- **4.** Blockchain wallet Risks: To purchase or store WEATHER TREE, you must use an blockchain wallet that is technically compatible with WEATHER TREE. If you use a different wallet, you can't access the WEATHER TREE you bought.
- **5.** Force Majeure Risk: WEATHER TREE is still under development and WEATHER TREE Inc. will try to develop and maintain WEATHER TREE as it is written in the white paper, but the details may change for a number of reasons, including legal, design, technical and administrative regulations.

WEATER TREE Inc. is not responsible for any changes to the regulatory frame or for any loss of value, loss, liquidity, lack of market interest, or liability for similar situations due to force majeure factors such as platforms or open sources that adversely affect WEATER TREE.