

E t h e r e u m S t a n d a r d H a s h r a t e T o k e n

E T H S T



White Paper

The first global perpetual
Ethereum standard hashrate protocol





A b s t r a c t

ETHST is the first global perpetual Ethereum standard hashrate token, a hashrate token that anchors the mining power of Ethereum. ETHST has the most convenient mining method in the industry. Users only need to purchase and hold ETHST tokens to participate in on-chain mining.

At the same time, according to a smart contract deployed on Ethereum main net, users who hold ETHST passes can obtain two tokens, ETH and ET, enjoying double benefits for mining with 2 tokens.

I. The History and Prospects of the Mining Industry

1. What is Mining?

Mining is a general term for cryptocurrency mining. Essentially, mining is to create a new block and add it to the blockchain. In order to add this block, miners need to solve a "cryptographic puzzle" to generate a valid block.

In short, mining is the act of participating in a given peer-to-peer distributed cryptocurrency network in a consensus manner, and miners are subsequently rewarded for providing solutions to challenging mathematical problems.

Take Bitcoin mining as an example. In the setting of the Bitcoin system, participants need to use computers to do hundreds of millions of hash collisions until they find the correct hash value to get some Bitcoins as a reward. In other words, this process is similar to doing a lot of mathematical operations in the vast code. Only after successfully finding the correct answer can miners get a certain number of Bitcoins as a reward. This is the resource of producing the Bitcoin.

The same goes for Ethereum mining. Miners try to create and verify blocks on the Ethereum network and when a miner provides a "proof" faster than other miners, the block is valid and that miner can be rewarded with ETH.

2. History of the Mining Industry

Since the birth of Bitcoin, the mining industry has gone through four important stages, namely CPU mining, GPU



mining, mining with professional mining machines and mining with mining pools.

In January 2009, Bitcoin founder, Satoshi Nakamoto, used a multi-core CPU to mine the Bitcoin genesis block, which also marked the birth of the cryptocurrency mining industry. At that time, ordinary computers were equipped with CPUs, so the threshold for mining at that time was low. Mining was possible with a laptop or desktop PC, and everyone could become a miner.

With the increase in the number of miners, the difficulty of mining on the entire network begins to increase, and ordinary CPU computing speeds can no longer meet the higher difficulty algorithms. In July 2010, a miner successfully used GPU for mining, opening a new chapter in mining. Subsequently, mining with professional mining machines represented by ASIC officially entered people's field of vision. ASIC mining machines customized integrated circuit equipment specifically for digital currency mining, focusing only on mining digital currency. The emergence of ASIC mining machines and large-scale applications changed the pattern of mining to a certain extent.

In 2014, mining cloud hashrate suddenly emerged. For mining machine manufacturers, cloud hashrate can transfer the cost of heavy assets and quickly withdraw cash flow, while maintaining the right to control hashrate. For users, cloud hashrate provides a relatively convenient way of mining, eliminating the need for cumbersome steps in the middle.

Since then, due to the continuous exponential increase in the computing level of the entire Bitcoin network, a single



device or a small amount of hashrate cannot obtain the block reward provided by the Bitcoin network. After the hashrate of the entire network has increased to a certain level, the low probability of obtaining rewards has prompted some geeks to develop a method that can combine a small amount of hashrate to operate jointly. Then the website created in this way is called a mining pool.

In this mechanism, regardless of the amount of hashrate that individual miners can use and whether a block is successfully mined, as long as they participate in mining activities by joining in the mining pool, they can be rewarded based on their contribution to the mining pool.

Mining has always been closely related to hashrate. The level of hashrate determines the efficiency of mining. The higher the hashrate is, the faster the calculation speed will be, and the greater the chance of finding the correct hash value will be, as well as the chance of earning cryptocurrency. Therefore, the development history of mining can be regarded as the evolutionary history of hashrate to a certain extent.

3. The Birth of Hashrate Token

In recent years, the developmental potential and valuation of cryptocurrency have continued to increase, and more and more people are optimistic about cryptocurrency. At the same time, cryptocurrency mining becomes more and more popular because of the sharply increasing price of Bitcoin. In the past ten years, the mining industry has achieved striking growth and innovation. However, it's just a start.



In the blockchain field, mining is the most direct way to obtain cryptocurrency. Since the birth of Bitcoin, the mining industry has undergone a transformation from initial CPU mining to cloud hashrate mining. However, with the substantial increase in power consumption, the continuous rise in mining difficulty, and the ceaselessly upgrade of mining equipment, the threshold for Bitcoin and Ethereum mining is getting higher and higher, which restrains many people who want to obtain cryptocurrency through mining.

In 2021, mining is popular all over the world, and it has gradually formed an unstoppable trend.

However, most users are unable to participate in mining due to high mining thresholds, and the drawbacks of cloud hashrate have become increasingly prominent. In this context, the concept of hashrate tokenization is introduced.

Tokenization, refers to the hashrate currency, which presents the mining power of the mining machine in the form of a token. Each token anchors a fixed mining power, and the user can participate in the cryptocurrency by holding the hashrate currency. In mining, compared to purchasing mining machines for mining, holding tokens for mining can omit a lot of cumbersome processes.

The emergence of tokens is actually a manifestation of the specialization, intensification, and institutionalization of the mining industry. To a certain extent, hashrate token has revitalized the vitality of the market, and greatly improved the liquidity of hashrate. Compared with cloud hashrate, tokens have obvious advantages. For investment users in the secondary market, they can sell tokens



immediately if they don't want to hold them.

At present, judging from the popularity of mainstream trading platforms in the industry, tokens have undoubtedly won the favor of many venture capital institutions. In 2021, as the most traditional mining industry in the blockchain field, tokens will become a new battlefield for capital.



II. ETHST Description

ETHST is the first global perpetual Ethereum standard hashrate token. It is a token that anchors the mining power of Ethereum. Users with ETHST token can obtain ETH and ET according to the contract of hashrate.

1. ETHST Basic Data

Website: <https://www.ethst.io>

The initial total supply: 500,000 ETHST

Each ETHST initially is pegged into: 1 ETHST = 1Mh/s

Initial ETHST Price: 1 ETHST = \$40

Total Hashrate: 500,000Mh/s

Ways to obtain: unlock a total of 10 batches

Hashrate Provider: SparkPool

The hash power of each ETHST corresponding to Ethereum mining is 1Mh/s, and the initial supply of ETHST tokens is only 500,000. All initial ETHST tokens will be snapped up in 10 batches.

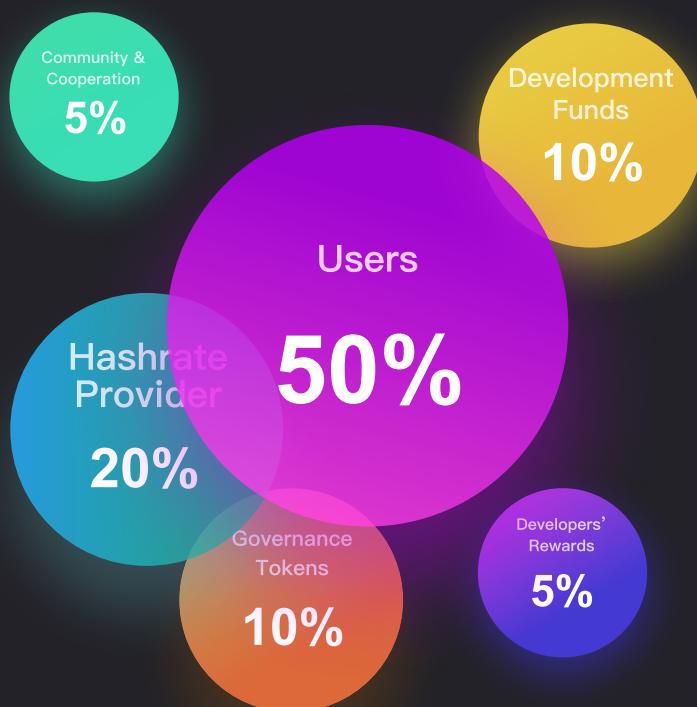
2. ETHST Hashrate Allocation Mechanism

ETHST, as the first global perpetual Ethereum-based standard hashrate token, has a complete and transparent



hashrate distribution mechanism.

Among all of hashrate, 50% will be allocated to users who hold ETHST; 20% will be allocated to the hashrate provider to support the perpetual mining of mining machines, as well as the maintenance of the machine, power consumption of mining, business operations and other costs; 10% will be used for the repurchase and destruction of governance tokens; 5% will be used for community and organization cooperation; 10% will be allocated for development funds; and the last 5% will be used for developers' rewards.



3. Advantages of ETHST Mining

1. Perpetual mining

ETHST is the first global perpetual Ethereum-based standard hashrate protocol. Users who hold ETHST have no time limit and can permanently mine Ethereum, which is new in the industry. At present, all Ethereum mining



products on the market, whether they are traditional mining machines or hashrate products, have a certain time limit. The mining efficiency of traditional mining machines will gradually decrease over time until they are finally eliminated. For hashrate products, there is a time limit and mining will stop when the product time expires.

2. Stable Hashrate

ETHST is a hashrate token based on the blockchain network, and the mining efficiency of 1 ETHST is strictly controlled within the power range of 1Mh/s. As long as the blockchain network exists, ETHST will always exist, and the mining effectiveness of ETHST will never fail. At the same time, the ETHST official team cooperates with miners with the most mature mining technology in the world, **using the latest Ethereum mining machines, having the industry's top hashrate configuration**, holding tokens for mining, and having full hashrate power.

3. Data transparency

ETHST mining output will be automatically distributed to ETHST holders through smart contracts, completely eliminating the drawbacks of centralization. The total amount of ETHST issuance and circulation data are completely transparent, checkable and non-tamperable on the chain, which protects users' rights and interests of mining with tokens to the greatest extent.

4. Speediness and convenience

ETHST has the most convenient Ethereum mining method in the industry. Users only need to purchase and hold



ETHST hashrate tokens to conduct Ethereum mining. When using traditional mining machines to mine, users are distributed the remaining earnings after miners deduct site fees, electricity fees, operation and maintenance expenses. In this process, users cannot determine the specific settlement data, so the losses need to be endured by themselves.

With the use of ETHST hashrate tokens for mining, users do not need to participate in the cumbersome mining machine buying and selling process, or worry about the failure and maintenance of the mining machine equipment and additional high power consumption costs. The users can solve the problem of mining cost just by holding ETHST hashrate tokens.

5.Double benefits

Users who purchase ETHST not only have the right to mine Ethereum and obtain high value-added ETH tokens, but also can obtain the governance token of ETHST, ET, **enjoying double benefits for mining with tokens.**

6.High liquidity

ETHST hashrate has the characteristic of high liquidity. Users who purchase ETHST hashrate can choose to hold ETHST for Ethereum mining. ETHST can also be invested in the ET liquidity mining pool for ET mining. ETHST hashrate tokens can be unlocked at any time and invested in any mining pool for mining. Users can also use centralized and decentralized trading platforms at any time to sell ETHST tokens.



7. Real-time earnings

Different from other Ethereum mining machines and mining products, users who hold ETHST hashrate tokens can enjoy the rights of real-time mining and real-time earnings. At present, almost all mining products on the market require the next day or even longer to settle the earnings, but the earnings obtained by ETHST mining can be updated in seconds and arrive in real time. Users can also withdraw tokens at any time, which is convenient and fast.

8. Hashrate monitoring

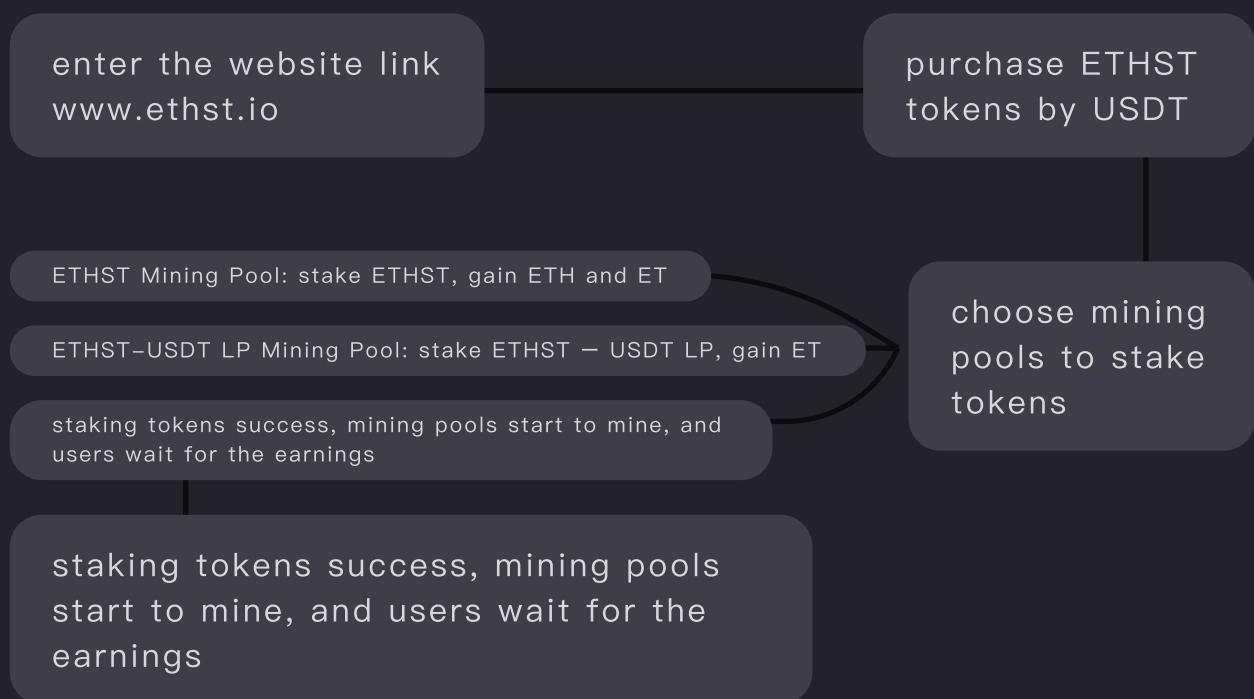
The entire process of ETHST mining information is completely transparent. Users can query the mining information of the mining machine at any time, monitor the ETHST mining data in real time, and can query historical data such as specific mining output.



III. How to participate in mining?

1. Obtain ETH and ET by staking ETHST on the official website

The user logs into the ETHST official website <https://www.ethst.io>, and enters the "Buy Token" page to purchase ETHST hashrate tokens according to the instruction. After the purchase is completed, enter the "Farming" page of the official website, and you can choose the ETHST pledge pool or the ET liquid mining pool for staking operation. After the staking is completed, you can get ETH or ET earnings.



2. Third-party wallet stakes ETHST to obtain ETH and ET

Users can also mine through common wallets such as Huobi Wallet, TokenPocket, MetaMask, etc. Take Huobi



Wallet as an example:

The user logs in to Huobi Wallet, enters "Heco DeFi", selects the mining menu after entering, and selects the project "ETHST" or enter the website link <https://www.ethst.io>. After entering, click on the "Buy Token" page and follow the instruction to purchase ETHST tokens. After the purchase is completed, enter the "Farming" page, and choose the ETHST pledge pool or the ET liquid mining pool for staking tokens. After the staking is completed, users can get ETH or ET earnings.





IV. Governance token ET

1. ET Summary

ET is the governance token of the first global perpetual Ethereum-based standard hashrate token ETHST. The total amount of issuance is constant at 100 million and will never be issued again. ET is a decentralized blockchain digital asset based on the ETHST ecology, which directly maps the value of ETHST hashrate currency. As the only governance token of the ETHST ecosystem, ET holders will enjoy privileges such as community voting and project governance. With the continuous upgrade of the Ethereum network, the joint construction and development of the global community, and the continuous introduction of advantageous resources from all parties, the value of ET will continue to increase.

2. ET Tokens Allocation Mechanism

The total supply of ET tokens is 100 million, and the specific distribution plan is as follows:





3. Unlocking Rules

The total amount of ET tokens is 100 million, and 0.1% of the total remaining amount is released daily, and will never be issued again.

The specific distribution information of ET is as follows:

(1) Users who hold ETHST for ETH mining will receive 10% of the total ET reward in proportion;

(2) In terms of node rewards, 5% of ET will be allocated to the node reward pool, and the top 21 nodes in the total holdings of ETHST nodes will receive this part of ET rewards. 50% of the ET is settled in the prize pool every week, and the unsettled part will be added to the next week for unlocking, and this circulate will be repeated;

(3) In terms of invitation incentives, 20% of ET will be allocated to the invitation mechanism for second-tier invitation incentives.

Successfully invite users to buy and stake ETHST hashrate tokens to get this part of ET rewards in proportion;

(4) In terms of developer rewards, 10% of ET will be allocated for developer rewards. This part of ET will be unlocked in 12 equal batches, which will be unlocked within one year;

(5) Finally, 55% of ET will be obtained through liquidity mining. In the early stage, two mining pools, ETHST-USDT and ET-USDT, will be supported for staking to obtain ET. In the later period, the official team will open more liquid mining pools of popular currencies, so that users can obtain governance tokens ET in more ways.

V. Expected Earnings

Users who purchase ETHST hashrate tokens have two staking pools for lock-up mining. Users can choose to hold ETHST for Ethereum mining; or invest ETHST in an ET liquid mining pool for ET mining. ETHST hashrate tokens can be unlocked at any time and invested in any mining pool for mining. Users can also participate in two mining methods at the same time, and both investment methods have higher returns.

1. Participate in ETHST mining pool mining

For users who purchase and stake ETHST tokens for Ethereum mining, the earning rewards are divided into two parts, one part is the ETH token obtained from mining, and the other part is the governance token ET of ETHST. At present, the daily mining reward for every Mh/s of Ethereum mining in the whole network is 0.00007668ETH. According to this, the minimum annual expected yield (APY) of ETHST hashrate token is:

$$\text{APY} = \text{daily amount of ETH} \times \text{ETH unit price} \times 50\% \div \text{ETHST unit price} \times 365$$

Example: Assuming that the average price of ETH is \$2,500 and the average price of ETHST is \$40, if all users participate in ETHST mining.

Then the minimum expected annual earning of ETH mining part of ETHST hashrate token is
 $0.00007668 \times 2500 \times 50\% \div 40 \times 365 \approx 87.5\%$



In view of the fact that users who purchase ETHST will participate in different mining pools for mining, so the earnings of holding ETH mining will be **higher than 87.5%**.

In addition, users who hold ETHST can also receive a proportional reward of governance token ET. Assuming that holding 1 ETHST can get 300 ET a year and the average price of ET is \$0.1.

Then $APY = 300 \times 0.1 \div 40 \approx 75\%$

In summary, when the average price of ETH is \$2,500, the expected annual return of ETHST for Ethereum mining will **exceed 162.5%**!

2. Participate in ETHST-USDT LP mining pool mining

Since the total amount of ET is small and the amount of early release is small, users who purchase ETHST hashrate tokens can invest ETHST in the ET liquidity mining pool to mine ET.

Then the annual expected yield (APY) of participating in ETHST-USDT LP mining pool mining ET is:

$$APY = \text{daily ET quantity} \times \text{ET unit price} \div \text{unit LP price} \times 365$$

Example: Suppose that you can obtain 3 ET for mining with 1 ETHST per day, and the average price of ET is \$0.1, the unit price of LP is \$40,

Then $APY = 3 \times 0.1 \div 40 \times 365 \approx 274\%$



3. Participate in ET-USDT LP mining pool mining

Similarly, the annual expected yield (APY) of participating in ET-USDT LP mining pool mining ET is:

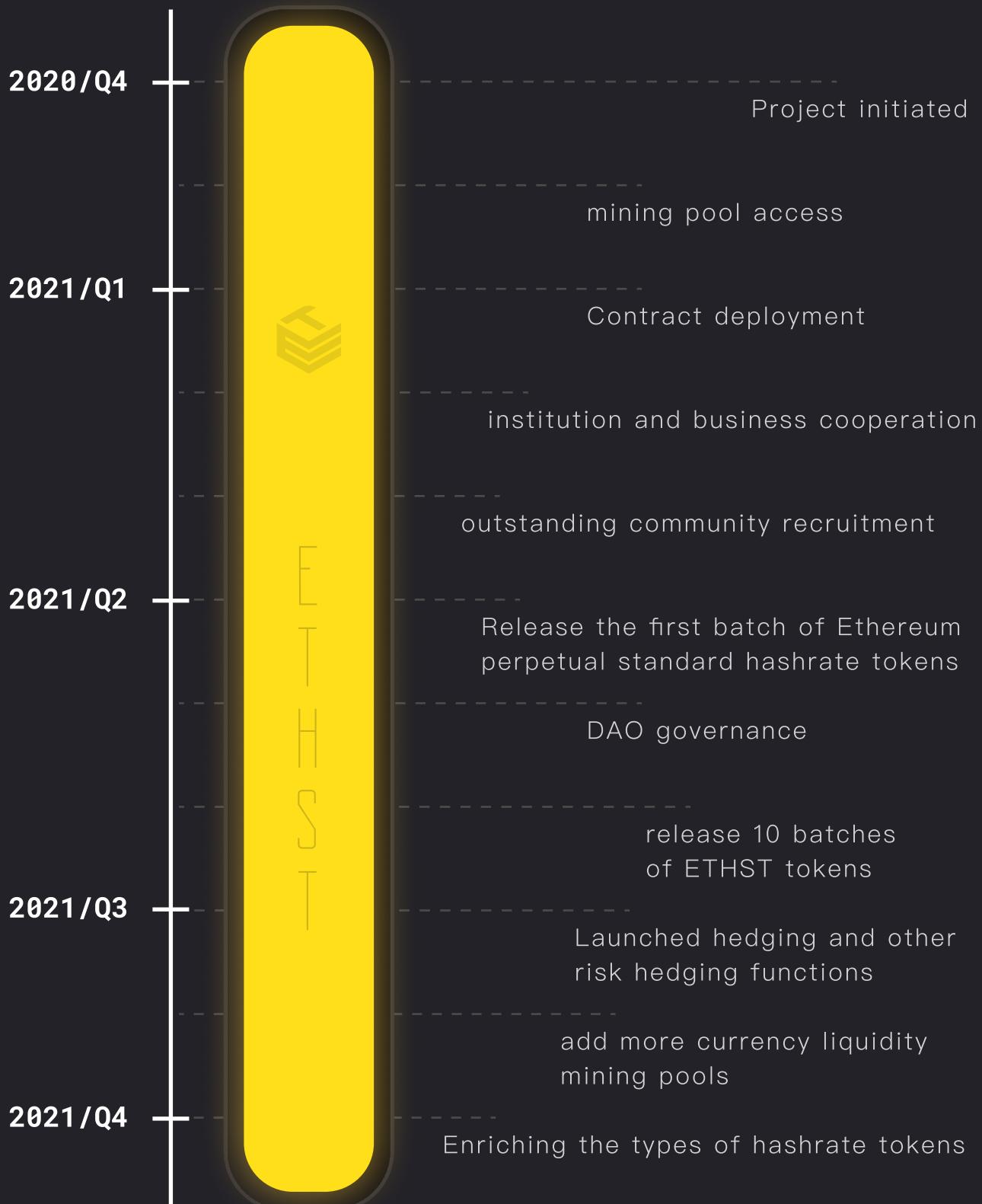
$$\text{APY} = \text{daily ET quantity} \times \text{ET unit price} \div \text{unit LP value} \times 365$$

Example: Suppose that you can obtain 5.25 ET for daily mining with the liquidity pool, the average price of ET is \$0.1, and the unit LP price is \$40.

Then $\text{APY} = 5.25 \times 0.1 \div 40 \times 365 \approx 479\%$



VI. Development Roadmap



VII. Risk Reminder

Users need to understand that any mining activity has its fixed risks and additional risks brought by tokenization.

Mining output is affected by various factors such as mining machines, mines, mining pools, network-wide hashrate, difficulty and so forth. So, the fluctuations in revenue are normal. The value of ETH and other ETH produced by the hashrate products sold by the ETHST team is naturally priced by transactions in the global market. Purchasing this hashrate product will be regarded as the user's recognition and understanding of the investment risks and derivative risks of ETH and other digital assets. It is recommended that users decide the purchase quantity and investment amount according to their own risk tolerance.

Before purchasing ETHST hashrate tokens, users should ensure that they understand and carefully assess the risks of digital asset mining and trading, understand their own risk tolerance, and decide whether to purchase them after full consideration. The official ETHST team is not responsible for the losses caused by the following risks:

(1) Policy risk

Changes in the macro policy and relevant laws, regulations and policies of the user's country may affect the normal mining and trading of digital assets, which may lead to losses; in the process of digital asset mining and trading, if the user violates the laws of the country where the user is located , the risk caused by the regulations shall be borne by the user;



(2) Earnings risk

Due to the particularity of the digital asset industry, the appreciation or depreciation of digital assets fluctuates greatly, and users should bear the risk that the mining and transaction returns will not meet the investment expectations;

(3) Smart contract risks

The deployed smart contract may be attacked or damaged, resulting in asset loss or inability to obtain mining rewards. Although smart contracts have been audited by top code auditing companies, the risk of hacker attacks still cannot be eliminated 100%;

(4) The risk of force majeure

Unforeseeable, unavoidable or insurmountable objective events, including natural disasters such as floods, volcanic eruptions, earthquakes, landslides, fires, storms and severe weather rated by government departments, government actions and government directives, city level power grid accidents, and social abnormal events such as wars, strikes, turmoil and other normal commercial risks.

The final interpretation right of the hashrate products sold by the ETHST team belongs to the official ETHST team.