



**60%**  
**JACKPOT**

**White Paper**

V 1.0 | 2017



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## 1. Summary

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ETH Lottery is the first fully decentralized and transparent lottery managed by an Ethereum smart contract. In order to fulfill our mission in the best possible way, we are making the whole lottery fully transparent, eliminating any third-party involvement in the lottery process and management of funds. Therefore, all tickets sold and results are available to the public and recorded on the Ethereum blockchain without 3rd party involvement.

As the first step, we plan to create ETH Lottery tokens (called ETHD) which will grant holders an access to our first ever ETH Lottery and entitle them to earn 15% on ticket sales on future lottery. ETH Lottery tokens crowdsale ("ICO") goal is set at 7500 ETH. Up to 60% of the funds raised will be allocated to the Jackpot. We will also launch a Token Sale in order to distribute 70% of all ETH Lottery tokens within the community. The team will own 20% of the tokens to remain motivated to keep on developing the project. The remaining 10% will be used to pay for advisers, escrow and bounty services. All unsold tokens will be burned.

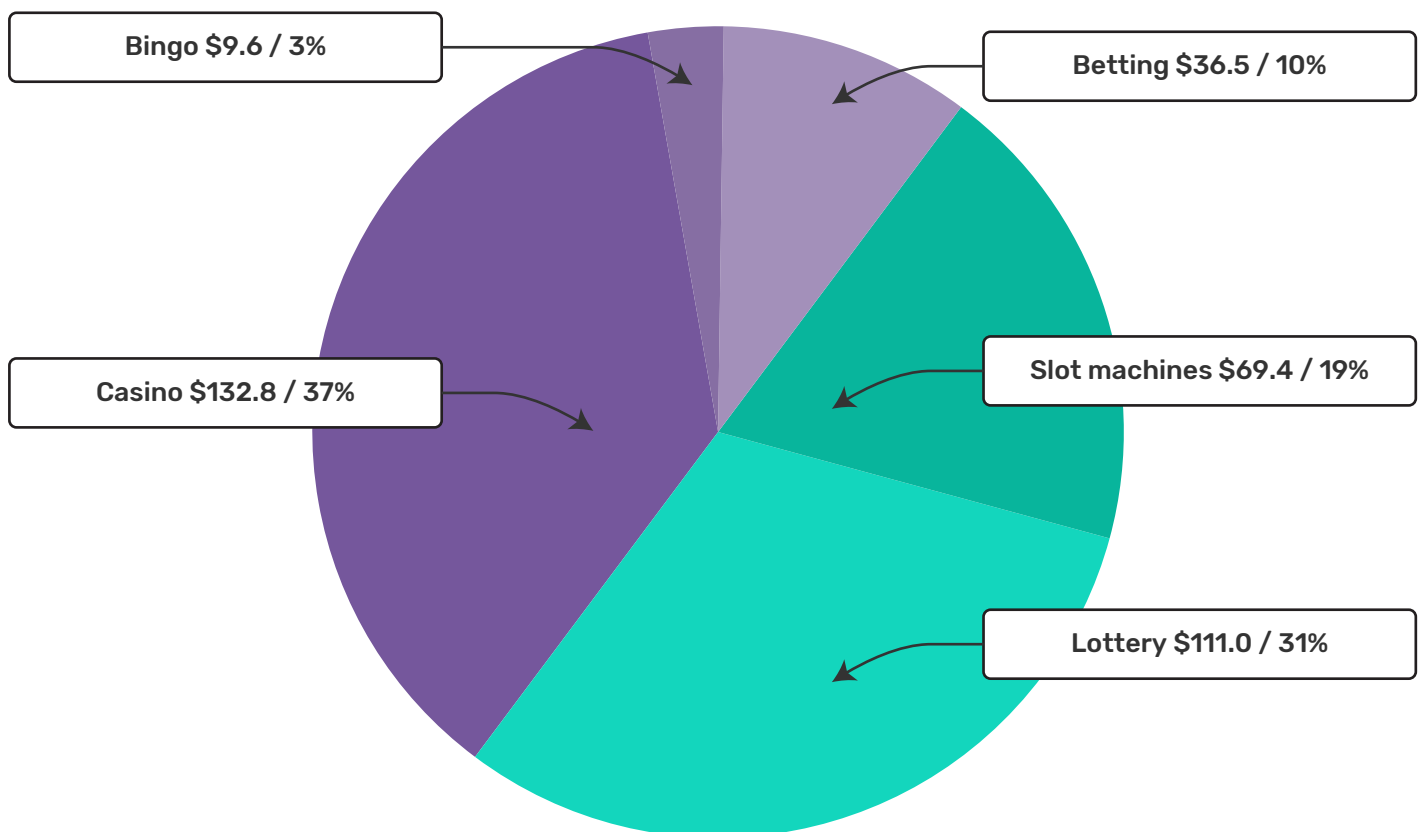
## 2. Introduction

### Gambling Market Overview

The offline and online gambling market continues to grow every year. In 2016, the offline gambling market accounted for 359.3 billion USD, while the online market was estimated at 44 billion USD. It is noted that online gambling is experiencing faster growth (10% higher than offline), and is expected to reach 60 Billion USD annually by 2020.

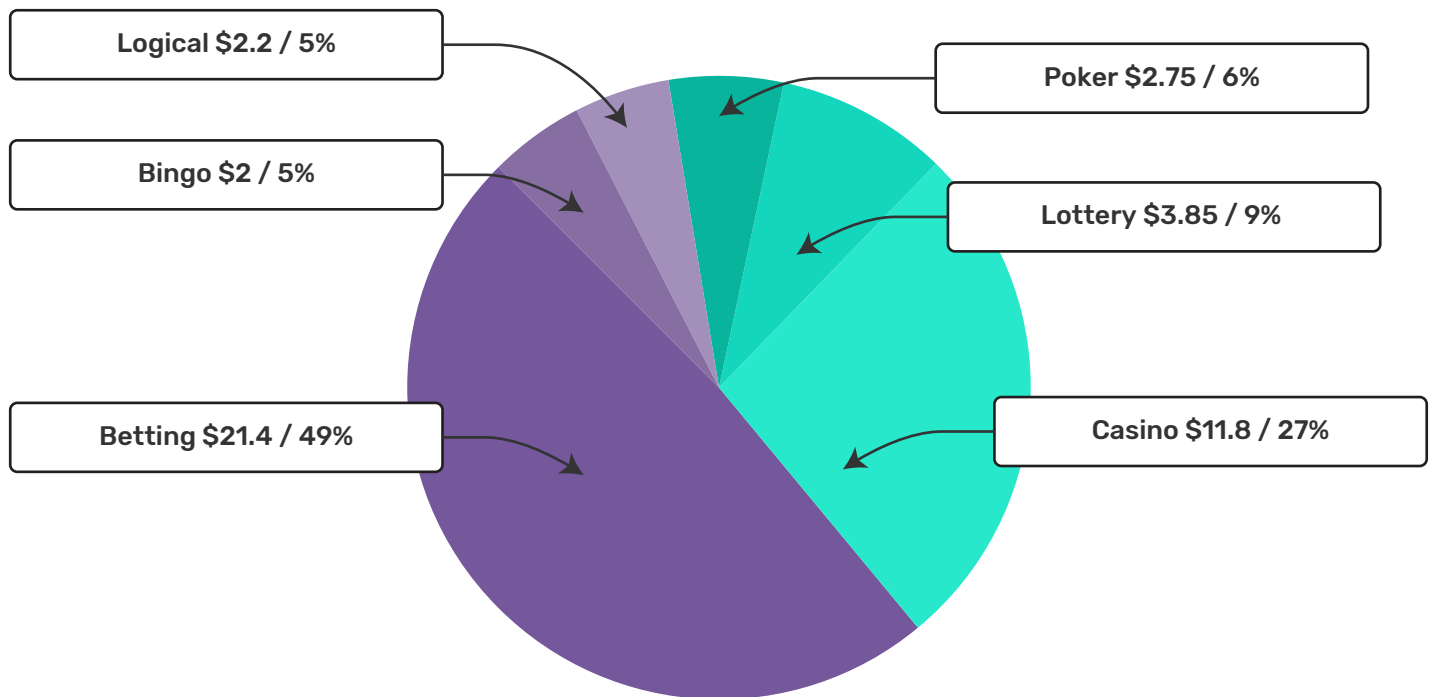
As online lottery has an added value and low market share in comparison to offline lottery, it seems that this sector has strong market potential in the future. Our goal is to attain 15% of the online lottery market category turnover within the first 2 years of operation.

### Income structure of global offline gambling business in 2016 (US Dollars and %)



## 2. Introduction

### Income structure of global online gambling business in 2016 (US Dollars and %)



The online lottery market subcategory currently accounts for approximately 4 billion USD annually and is expected to grow at a rate of 10-12% per year. Currently, a lack of transparency is the main factor slowing down growth. None of the currently operating online lotteries are decentralized and transparent. Their processes depend on third party involvement which is not subject to any control mechanisms and creates a high risk of lottery operators influencing draw results and prize payouts.

- ★ **Online gambling is the fastest-growing sector in the industry**
- ★ **By combining the advantages of Ethereum Blockchain technology and cryptocurrencies, we will be able to seize the market share from classic lotteries, opening new opportunities for projects in this industry**



## 2. Introduction

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### Smart Contracts powered by Blockchain Technology

The idea of smart contracts based on a decentralized ledger (digital contract, blockchain contracts, self-executing contracts) emerged from the work of cryptographer Nick Szabo in the early 1990s. In essence, the idea can be summarized as a conversion of contracts to computer code, where the storing and replication takes place on the network. The process is automatically supervised by the network of computer devices participating in the blockchain circuit. As a result, the ledger feedback loop takes place and the transfer of assets or receiving of services/products is made possible. They become an infrastructure that allows a zero conflict and fully transparent exchange of value (e.g. shares, money, property), bereft of “middleman” intermediaries.

The transparency and the trust attributed to smart contracts operating on the blockchains derive from the fact that all agreements are executed automatically and allow no third-party access or administrator intervention. Blockchain allows a fundamental global shift in decentralized re-intermediated economy. It answers the social need for a global reinvention of lottery systems and their governance, which will lead to full transparency.

This shift is being dynamically introduced to all branches of the economy through blockchain technology. Cryptocurrencies have become increasingly popular, seizing the online gambling market and turning it into the most popular forms of payment today.

*Through the Blockchain technology, ETH Lottery will bring full transparency to online lotteries, setting the highest level of trust and quality in the industry.*

Many participants of the online gambling market also believe that the cryptocurrencies will continue to occupy this industry, especially considering the increasing number of networked devices and the number of users who prefer to play online and anonymously.

*Other advantages include:*

- ★ ★ Faster Payouts
- ★ ★ Anonymous plays and payouts
- ★ ★ Automated Payments
- ★ ★ No restrictions on the amount of transactions
- ★ ★ Lowering the minimum payment threshold

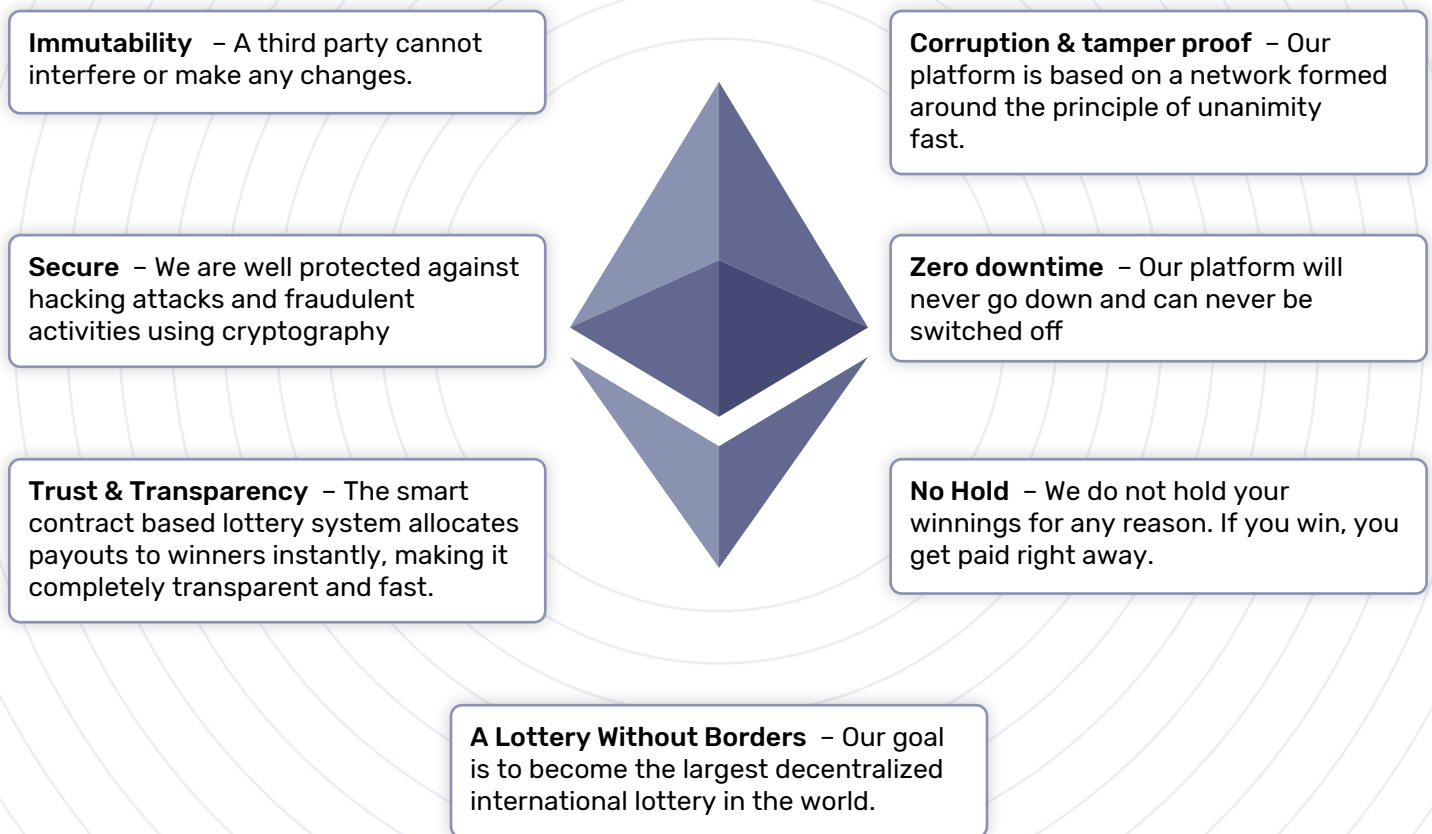
## 2. Introduction

### The benefits of a decentralized Lottery on the Ethereum Blockchain

Thanks to the development of the blockchain technology and the new trend of smart contracts for Ethereum, ETH lottery can belong to the community.

On the ETH Lottery platform, all lottery issuances such as ticket purchase, random number generation for draws, prize fund composition, prize tickets verification, prize distribution and other operations are 100% implemented using the smart contract.

#### *Benefits of a Decentralized Network*



## 2. Introduction

With no central point of failure and security using cryptography, applications are well protected against hacking attempts and fraudulent activities.

Ether is the second largest cryptocurrency by market capitalization, worth around \$36 billion, according to Coinmarketcap, below bitcoin's \$48.91 billion valuation. So, when we talk about a lottery based on the Ethereum blockchain, we are talking about linking the wide lottery participation in the whole gambling market to the constant and significant growth of Ethereum's share in the global financial market.



*Fifth of population partake in lotteries*



*Crypto market capitalization is \$80+.1 Billion. 200% growth in 2017*



*\$12.5 Million bitcoin wallets registered on Blockchain.info*



*\$218 Billion. spent on lotteries throughout the world in 2016*

### Mission

Lotteries are one of the most popular forms of betting in the world, run by government and states in most countries. Our mission is to build ETH Lottery as a undoubtedly fair and decentralized lottery platform that neither any nation, state, single authority, or members of our team can control.

Lotteries give a chance to dramatically change one's financial situation for the better, and this chance has always drawn the attention of millions of people all around the world. ETH Lottery's mission is to provide a revolutionary, fully transparent decentralized lottery to the current online industry, delivering absolute freedom and equal chances of winning to all players around the world.

Most existing lotteries are totally centralized or even held by governments, giving rise to unclear rules, hidden fees, and high taxes. ETH Lottery, with its internal and transparent management and zero third party involvement hopes to revolutionize and create a new standard in the global market.



### 3. ETH Operations

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#### How does the ETH Lottery take place?

ETH Lottery is the first fully decentralized and self-managing smart contract lottery. The lottery works in tandem with the smart contract, all lottery transactions are held on the Ethereum blockchain, all bets, results and payouts are public, independent from any third-party involvement and cannot be manipulated or influenced. These features enable us to provide quality entertainment to any user that wants to test their luck by playing in the lottery.

ETH lottery will look like any other ordinary powerball lottery, except funds are under smart contract administration and fund distribution rules are unalterable. A smart contract is created for each lottery defining the prize, ticket prices, and minimum number of entries. Participants can purchase tickets directly into a lottery with any ERC20 compatible token. Players choose five numbers between 1 and 59 in specific order. For example: 6, 23, 11, 30, 9. The player confirms the lottery ticket purchase transaction and waits for it to be included in an Ethereum block. Once included, the player is admitted into the lottery. Once the minimum number of entries is reached, the jackpot is activated and the smart contract draws the winning numbers. If the players' numbers are selected, the smart contract will automatically execute payment to the lottery winner. ETH Lottery payouts are instant, direct, secure and anonymous. Neither the administrator nor any other 3rd party can affect the lottery process.

#### A . COMPLETE ANONYMITY

A Lottery based on the Ethereum blockchain has several advantages. Any player from around the world can sign in to our lottery without providing any private information. The fundamental element of complete anonymity protects all players and secures their interests. The only thing the players need is a secure Ethereum wallet or Metamask wallet. Entering lotteries or winning payout processes do not generate any emails or confirmations and don't require any personal information from the player.

#### B . INSTANT PAYOUTS

The draw process is operated by the smart contract. All transactions are reflected in the open registry (Ethereum blockchain) and any player can monitor payment processing any time. Once a set number of participants is reached, and the draw is at its closing, the results are generated instantly. The process of obtaining the results take not more than a few minutes. Once the winning numbers are published, the funds are immediately transferred to the winner's Ethereum wallet. All payments are shown in the open blockchain ledger and any player may make sure they've received all prizes in full accordance with lottery rules.

### 3. ETH Operations











#### C . LOW TRANSACTION COST

Because of the Ethereum's smart contract architecture, the cost of each lottery is diminutive. In fact, the transaction cost per lottery is as little as 0.10 USD. This is significantly lower than most similar Ethereum contract transactions.

#### Distribution of the prize fund

The system automatically converts every payment to Ether and transfers funds to the prize fund of the lottery. The ETH Lottery prize fund is transparent and always open for viewing on the Ethereum blockchain. 60% of funds from Ticket sales are transferred directly to the Jackpot.

*A player wins when the numbers of the ticket match the numbers of the winning set according to the table below.*

MATCH	PRIZE	PROBABILITY
	JACKPOT	1 : 49 504 950
	30% *	1 : 1 984 127
	20% *	1 : 225 225
	1 BTC (\$2528.86)	1 : 9 014
	0,5 BTC (\$1264.43)	1 : 5 241
	0,5 BTC (\$1264.44)	1 : 374
	0.025 BTC (\$63.22)	1 : 210
	0.005 BTC (\$12.64)	1 : 73
	0.003 BTC (\$7.59)	1 : 46
	0.001 BTC (\$2.53)	2 : 49

Winnings\* in these categories are determined after calculation of winnings with fixed prizes. The payout fund is the difference between the amount of the prize fund of the run and amount payable for fixed-prize winnings.

The Jackpot is initially formed at the Token sale stage and is refilled by the lottery tickets being sold.

For more information about the lottery process and winnings distribution see section 9 (Lottery features).

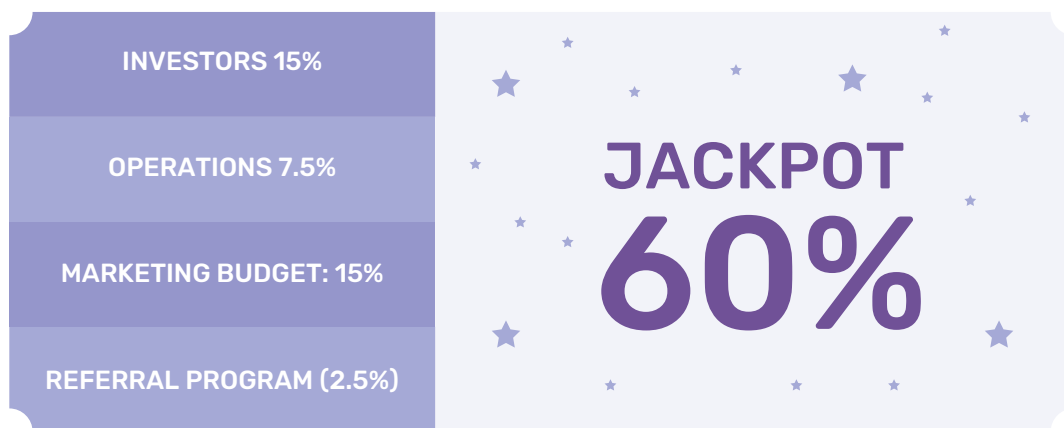
## 4. Business model

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ETH Lottery offers a transparent business model for ETHD Token holders. Operational expenses, lottery withdrawals, and tickets sold will be on record for Token holders on the Ethereum blockchain, so it cannot be altered.

The main service that generates profits is ticket sales. Our forecast suggests 25,000 tickets will be sold per day. The ticket price will vary depending on the size of the lottery, and will range from 0.005 ETH to 5 ETH.

*After a player buys a ticket, the funds will be distributed as it shows below.*



## 5. Marketing Plan

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By employing the right marketing strategy, ETH Lottery will develop a strong presence in both the online and offline community. To stimulate the steady growth of the platform, we aim to join a partnership network, which is a technological platform connecting advertisers and partners. We intend to conduct various media advertising campaigns, PR campaigns, and other offline activities in different regions and non-standard advertising through the attraction of offline partners. We will also use the power of social networks, such as Facebook and Twitter and their tools in our marketing strategy.

*Our strategy consists of:*

**Creating a powerful blog with weekly updates**

To stay engaged with the community

**Optimization for Search Engines (SEO)**

To make sure we are featured prominently in search results

**Establishing a social presence**

Platform will be socially friendly

**Turn followers into promoters**

Provide incentives for followers to refer friends and families to participate

**Make mobile priority**

Adaptable UX so users can visit our platform from any device

## 5. Marketing Plan



### ETH Referral Program - Rewards and Incentives for loyal customers

All lottery players can refer family and friends to the platform using their own unique link. After a referred friend signs up, he or she gets a free ticket to a draw. Players will receive 1% of their referred players' winnings on an ongoing basis, including the Jackpot!

### Affiliate Program

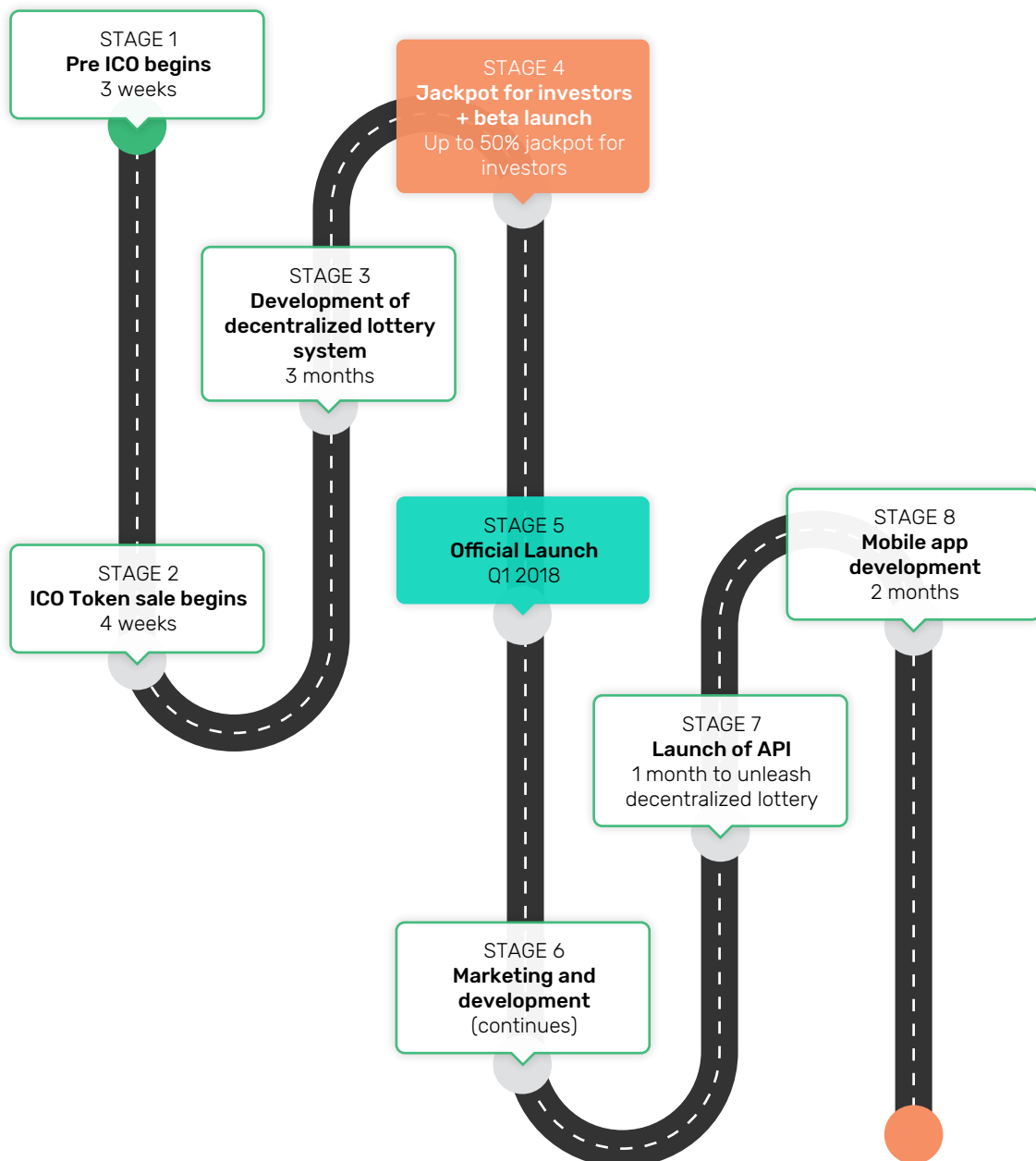
ETH Lottery will offer an actively growing affiliate program, where 1% of the value of the Tickets sold will be transferred to affiliates driving the lottery's traffic. The constant increase in lottery popularity will have a positive effect on the growth of the value of the Tickets played. As a result, the referral program budget will grow dynamically in both value and attractiveness. We also plan to develop a widget for purchasing lottery tickets on Affiliate websites and partnering websites.



## 6. ETH Lottery Roadmap

It is our goal to build one of the first truly decentralized lottery based completely on the Ethereum Blockchain. Once released, no central authority, including our team can change this.

*ETH Lottery platform's launch will be phased as follows:*



## 7. Token Sale

### Token sale details

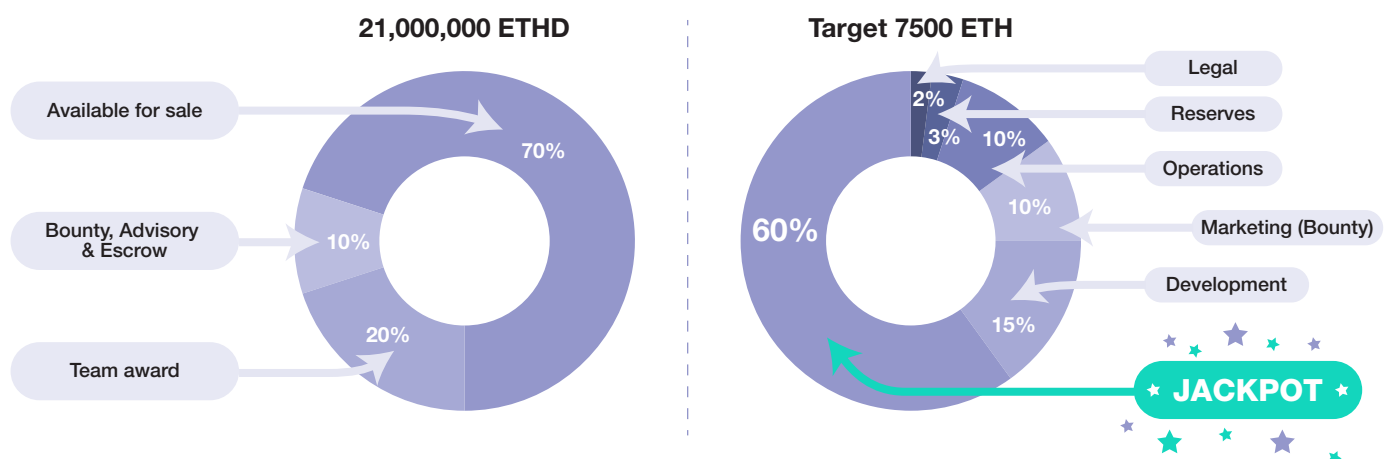
ETH Lottery Token (ETHD) sales model will use the ICO process to raise funds for the project. ETHD sales will last approximately 7 weeks, including the presale period of 3 weeks. The goal is to raise 7500 ETH. There is a minimum cap of 250 ETH.

All funds raised during the crowdsale will be stored within the smart contract only - the contract's balance is public and transparent. Funds will be managed by a smart contract according to the rules set out prior to the ICO start and which cannot be changed afterward.

Participants may invest with Bitcoin (BTC) during the presale. ICO sales will strictly be based on Ether (ETH).

### Raised funds distribution

During the crowdsale, all participants of the Token sale will be allocated a number of ETHD Tokens depending on their contribution and the current bonus. Once the crowdsale is over, the ETH Lottery team will distribute tokens on ETHD Token smart contract.



## 7. Token Sale

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### Unsold tokens distribution

#### **JACKPOT LUCKY WINNER**



*50% of unsold tokens will be up for grabs by one lucky winner (investor) via Jackpot.*

#### **BURNT 50% OF UNSOLD TOKENS**



*50% of the unsold tokens will be burnt.*

## 8. Token holders benefits

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### Post ICO Jackpot

50% tokens the unsold tokens will be up for grabs by one lucky winner via Jackpot. The other 50% of the unsold tokens will be burnt.

### Tradable Tokens

All issued tokens will be tradable on big name exchanges worldwide. We're working on an extensive list of exchanges to allow ETHD trades.

### Be revolutionary

Decentralized economy is here to stay. There is no stopping it. Be a part of this revolutionary economy.

### Daily reward

15% of the daily ticket sales is allocated as reward to the investors of the ETH Lottery ICO. Yes, that's right, you make 15% from each ticket sold.

### Financial Transparency

Every lottery and company finances will be available on the open blockchain for anyone to query at any time.

### Become part of something BIG

Don't be the guy who tells his grandkids how he witnessed changing the world to advancement. Be the contributor to that advancement. It's a better story.

### Investor Benefits with ETH Lottery:

Pre ICO bonus of 50%

First 50 investors that invest and bring 10 people each during the Pre ICO will receive 100% bonus

Up to 60% of the money raised during the ETH Lottery ICO is used as Jackpot prize, and exclusively for the investors

50% of the unsold Tokens are used as Jackpot exclusively for investors

15% of each lottery ticket sold are allocated toward investor dividends

## 9. Token technical aspects

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ETH LOTTERY token sale is based on the Ethereum blockchain. ETHD Tokens will be automatically allocated by smart contract to the contributors immediately after the crowdsale has ended.

*During the crowdsale there will be two ways to buy ETHD tokens:*

- ★ By sending Ether directly to the Token sale contract.
- ★ By sending Bitcoin to a unique address generated for you. If you invest via Bitcoin, the tokens distribution will take place manually on our backend.

After that, in both scenarios, Token sale contract will make a 'contract call' to the ETHD Token Contract to mint new tokens and allocate them to a public address of a contributor. Token sale contract is the only entity that will be able to mint tokens. After the end date of the token sale or once all the tokens are sold, ETH Lottery will issue a transaction that will finalize the Token sale. This will trigger minting the tokens for the team and prevent future tokens from minting on the ETHD Token Contract.

### Token smart contract functionality

ETHD token is ERC-20 smart contract on the Ethereum blockchain. This means, the tokens will be easily and instantaneously be transferable between users using the existing Ethereum wallets. This also affords the flexibility for exchanges to easily enable ETHD trading on their platforms.



## 10. Lottery flow and features

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A smart contract is created for each lottery defining the prize, ticket prices, and minimum number of entries.

Participants can purchase tickets directly into a lottery with any ERC20 compatible token.

Once the minimum number of entries is reached, the jackpot is activated.

A winner is selected at random using a unique algorithm.

The smart contract will automatically execute payment to the lottery winner.

The smart contract automatically sends payment to the winner.

## 11. Privacy

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As we are based on the Ethereum blockchain, we understand the importance of maintaining the privacy of our participants. Users' privacy is of the utmost importance to us and maintaining the trust and confidence of our users is our top priority.

We do not store any information which relates to an individual, that is information relating to an identified person on our platform. Our "Privacy Policy" informs of the ways we ensure privacy and the confidentiality of personal data and, even more, the anonymity of our users. We are compliant with applicable privacy laws in the countries in which we operate.

Our Privacy policy also describes the information we gather, how we may use the data and the circumstances under which we may disclose such information to third parties.

## 12. Conclusion

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This white paper presents in great detail the concept of a Smart Contract Decentralized Blockchain Lottery, describing the principles and and rules which support its implementation, including the prize fund, the marketing plan, the Token Sale, and the referral program.

The development team's efforts will be directed to development, and marketing. The team is also working on a mobile Ethereum wallet designed to simplify lottery participation for mobile users. The extensive use of both Blockchain technologies brings about unique features that will allow ETH Lottery to catapult to a whole new level of reliability and transparency.

### References

<https://bitcoin.org>

[www.h2gc.com](http://www.h2gc.com)

<http://www.bitgeeks.info>

<https://coinmarketcap.com>

<http://ethlottery.co>