



A DECENTRALIZED
RAFFLE PLATFORM
BASED ON ETHEREUM
SMART CONTRACTS

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1.1 OVERVIEW OF GAMBLING

The history of humanity is inextricably linked with the history of gambling, as it seems that no matter how far back in time you go there are signs that where groups of people gathered together gambling was sure to have been taking place. But why do people gamble?

One of the reasons for gambling is that it's human nature to feel excited when taking risks and the positive feeling gained from gambling is no different.

The sense of anticipation creates a natural high, an adrenaline rush, a feeling that very many of us seek when looking for fun and entertainment.

A feeling that some people believe they cannot live without.

Other reasons include an escape from everyday life and of course the prospect of a high-yield proposition in a short time.

For whatever reason people are drawn to gambling, one fact remains solid and unchanged, and it's that gambling will continue to exist, grow and prosper, especially when considering the technological advances we have today that ease and facilitate the reach of everyone for countless gambling platforms in just about several clicks.

"Will my numbers come up?"
"Will my team win?"



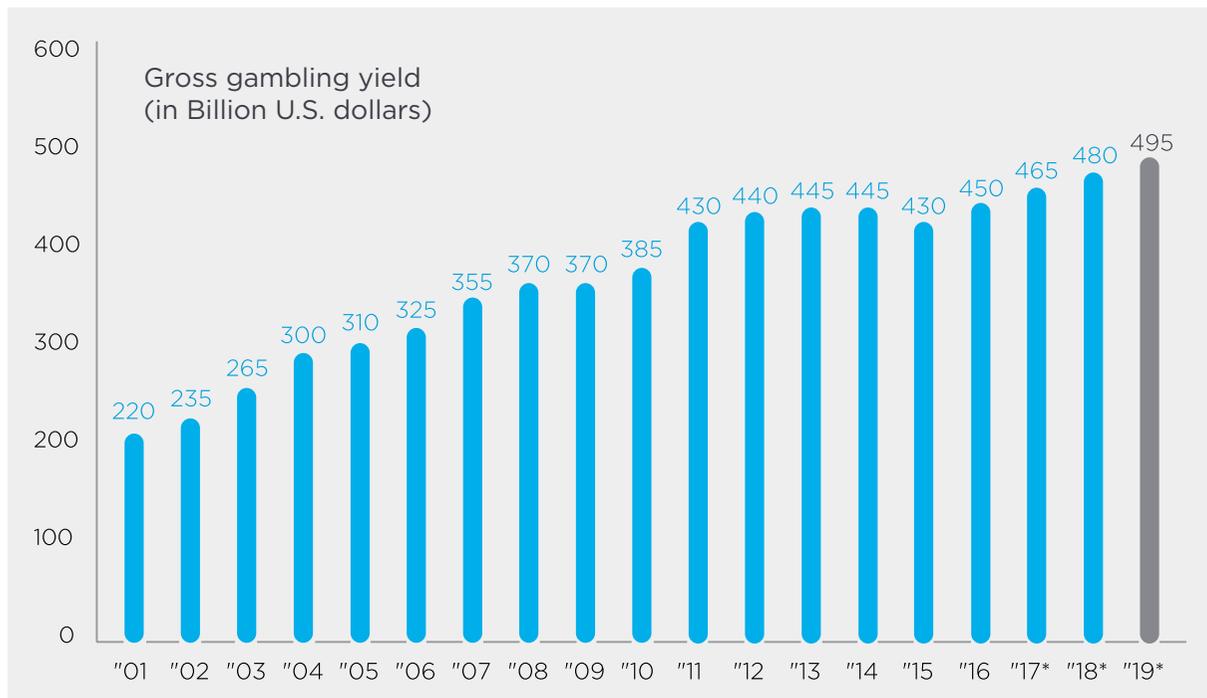
1.2 GAMBLING MARKET OUTLINE

The most authoritative data on gambling comes from the Global Betting and Gaming Consultants (GBGC) [1].

Their previous & estimated data of global growth of gross gaming yield (GGY) are presented in Graph 1.

The global gross gaming yield (GGY) totals for 2016 are presented in Graph 2 and the global growth of the online gambling market size are presented in Graph 3.

The statistic depicts the gross gambling yield from the global gambling market from 2001 to 2016 with projected or forecasted figures for 2017 to 2019. In 2017, the total gambling gross yield worldwide was projected to reach 465 billion U.S. dollars, this was forecasted to rise to 495 billion U.S. dollars by 2019 [2].



Graph 1 Global Gambling Revenues (GGY), by yearly growth

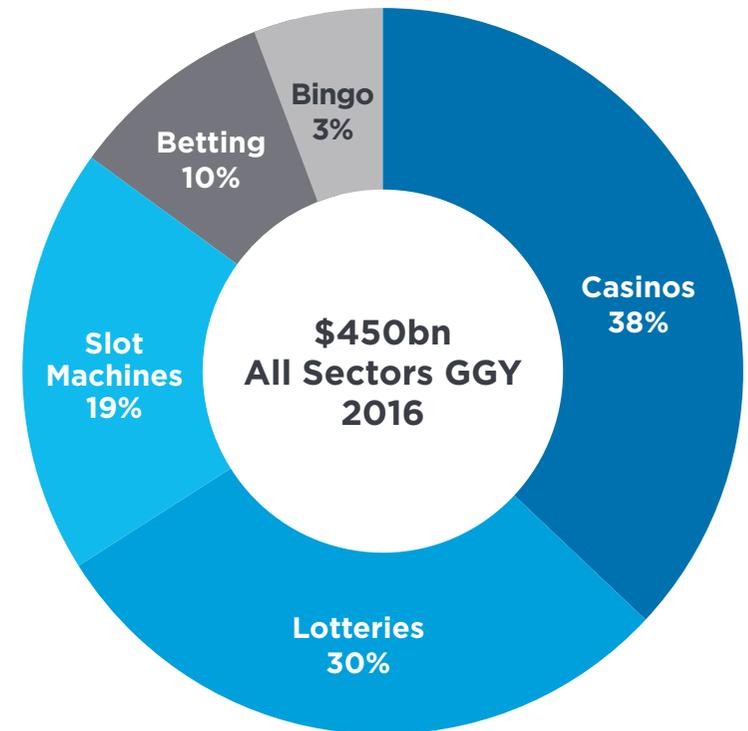
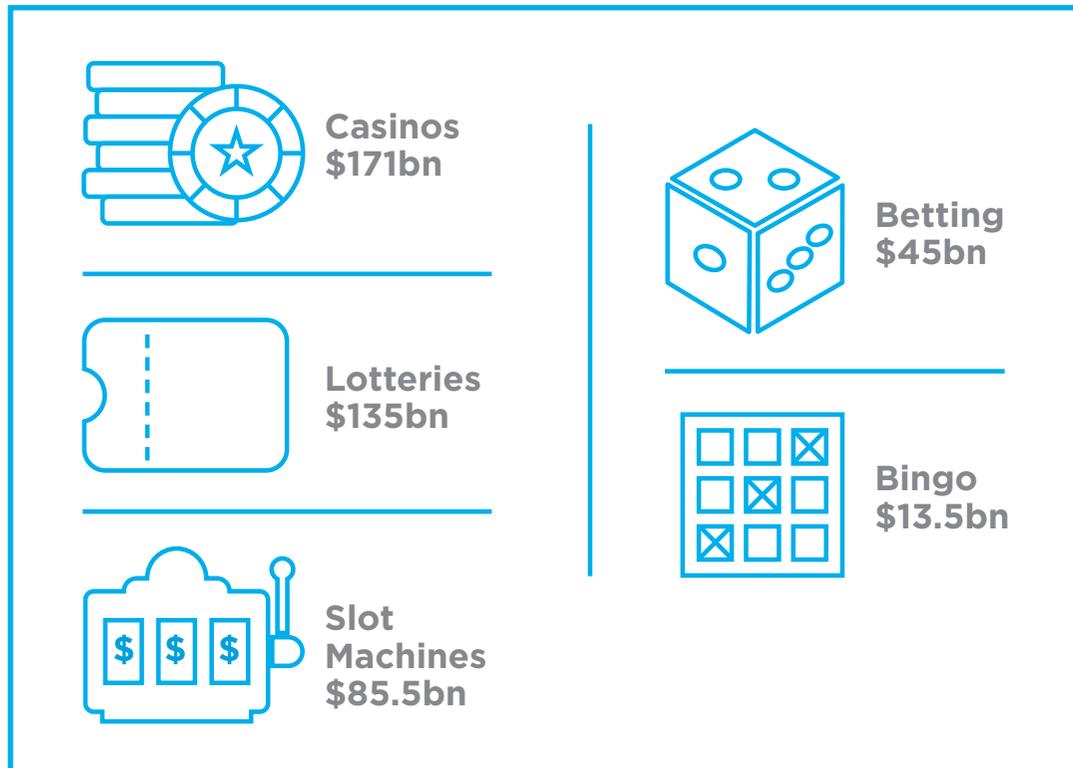
2017 | Projected to reach
465
billion U.S. dollars

2019 | Forecasted to rise to
495
billion U.S. dollars

1.0 INTRODUCTION

The statistic shows that the casino business continues to dominate the revenue contributions to the gambling

market worldwide with a 38% market share followed by lotteries with a 30% market share [3].



Graph 2 Global Gambling Revenues (GGY), by method in 2016

1.0 INTRODUCTION



The statistic shows that the global online gambling market is a dynamic and rapidly changing business. By the end of 2016, it reached \$45.86 billion, and is expected to reach \$96.89 billion by the end of 2024 that is 10.81% of CAGR [4].

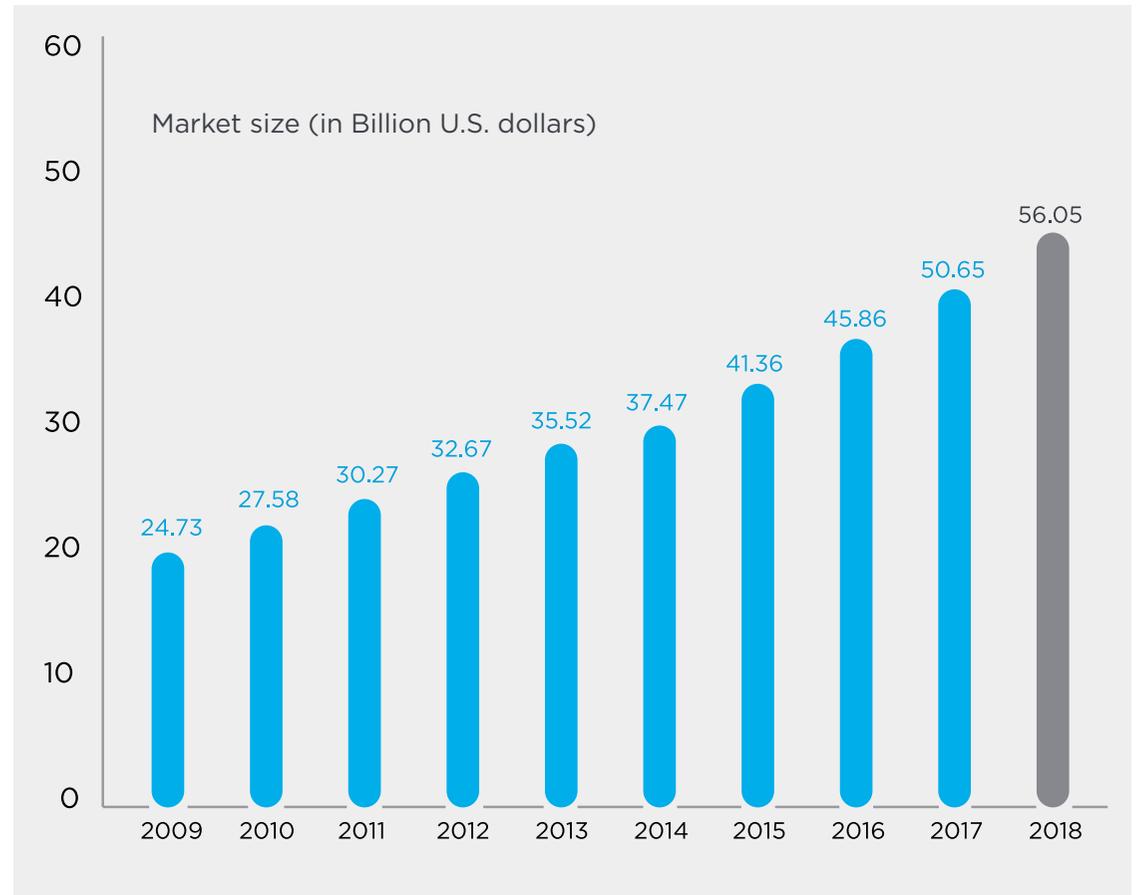
All of the statistics presented in Graphs 1,2 & 3 indicate that the gambling market is steadily growing with its online segment growing at an almost exponential rates.

End of
2016

Has reached
45.86\$
billion U.S. dollars

End of
2024

Expected to reach
96.89\$
billion U.S. dollars



Graph 3 Size of the online gambling market from 2009 to 2018

1.3 CRYPTOCURRENCY & BLOCKCHAIN USAGE AND INCORPORATION

The online gambling industry had its fair share of problems, misconduct and sketchy operations over the years. Security issues where users' identity was compromised, delayed winnings withdrawals and phantom transactions and commissions, extortionate fees, lack of full transparency with regards to the formation of the prize fund and all sorts of violations regarding prize fund distribution and the honesty of the gambling platform and operations.

Luckily, with the introduction of cryptocurrencies* & blockchain** technology and their escalated seize of the online gambling markets, all of these issues are becoming a thing of the past. Many platforms added Bitcoin to the list of currencies to pay for services. Some are entirely based on cryptocurrencies as a unified means of payment, and the number of gambling resources accepting cryptocurrencies will grow even more.

This trend derived from the numerous advantages cryptocurrencies have over the traditional means of payment including:

- Cryptocurrencies are a global payment solution. There are no national or international restrictions on making payments with cryptocurrencies;
- Cryptocurrencies cannot be counterfeited in the way which credit cards and banknotes can;

* A cryptocurrency is a digital asset designed to work as a medium of exchange using cryptography to secure the transactions and to control the creation of additional units of the currency.

- **Wikipedia**

** A blockchain is a continuously growing list of records, called blocks, which are linked and secured using cryptography. Each block contains typically a hash pointer as a link to a previous block, a timestamp and transaction data. By design, blockchains are inherently resistant to modification of the data.

- **Wikipedia**



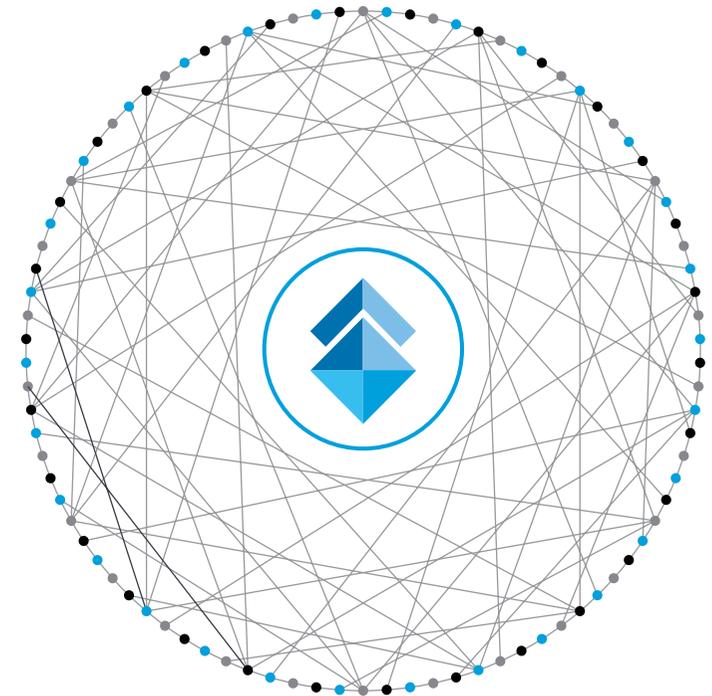
- Cryptocurrency transactions generally include lower fees compared to traditional transactions;
- Transactions are carried out immediately, whereas with some traditional methods you'd have to wait for longer periods before the amount appears in the account;
- The identity of the trader is protected as sensitive information is not required to complete a cryptocurrency transaction;

In addition, the revolutionary aspects of the blockchain technology allows absolute transparency of cryptocurrency transactions: gamblers can control the online casino operation and see how fair the game is. Which means that online gambling platforms based on the blockchain enter a new era where there is no room for manipulation and fraud, and hence provide the splendid opportunity of being a truly honest international gambling platform.

Furthermore, with smart contracts [5], it is possible to create a decentralized platform that has the advantage of complete transparency of all processes taking place on the platform and the fundamental absence of opportunities for fraud.

Ryfts is the first raffle platform that is based on the blockchain technology which incorporates all aforementioned aspects and blend them in its decentralized raffle system which uses Ethereum smart contracts [6] as the basis of all its processes to ensure a complete transparency of all processes taking place on the platform and the fundamental absence of opportunities for fraud or misconduct.

Ticket purchase, random number generation, prize payouts, prize distribution and other operations are performed by a smart contract without the possibility of intervention by third parties.



A raffle is a gambling competition in which people obtain certain means of betting (tickets, dices, numbers..etc) with each having the chance of winning a prize. Prizes are then determined by a draw of the means of betting from a receptacle or an electronic device if it's a physical raffle, or by an online engine (often called a random number generator [7]) as in the case of online raffles.

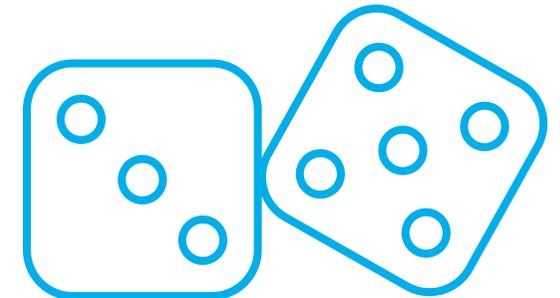
Raffles' popularity is increasingly growing worldwide because of its many and unparalleled attractions like its easy and straightforward nature, its unlimited variety regarding draw processes and means of betting and its flexibility in distributing prizes.

Ryfts' goal is to become the most transparent and provably-fair blockchain raffle platform that belongs to the international community and excludes the intervention of any third party in its processes and prize

distribution mechanisms through the use of a decentralized raffle system which uses Ethereum smart contracts, open source code and a decentralized engine for random number generation as the basis of all its core and external operations.

In this way, it can guarantee a raffle platform that neither any corporate state, nor a single authority, nor any member of our team could control or manipulate. Additionally, Ryfts strives to become the most honest and successful raffle model in which the standard Players-Against-The-House model is entirely replaced with the more sincere, transparent and neutral model of Players-Against-Players.

Ryfts' goal is to become the most transparent & provably-fair blockchain raffle platform that belongs to the international community



3.1 RYFTS QUICK OVERVIEW

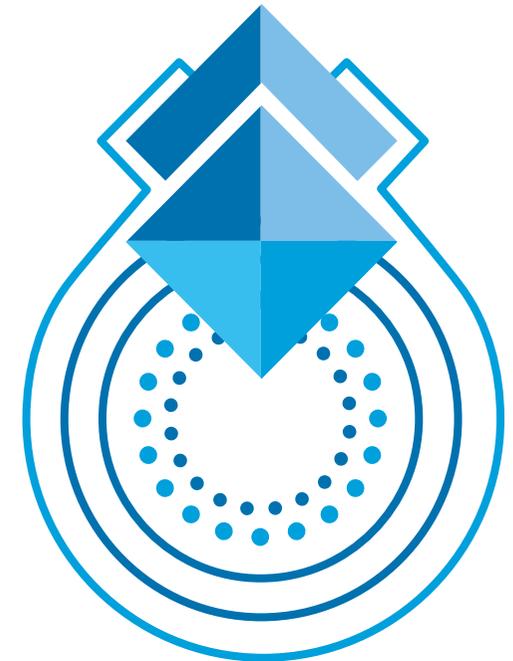
Ryfts is an anonymous raffle platform with an international magnitude that stands clear from the conventional lottery systems by implementing a variety of refreshing and convenient game models opposed to only one fixed model that's used by traditional lotteries. In this case, each player chooses the most appealing combination of odds, pool sizes, duration of the betting rounds and the final prize amounts.

So while traditional lotteries rely heavily on "Powerball [8]" like enormous pools and prizes that greatly diminish each player's odds and that requires extensive periods of time to deliver, Ryfts depends on dynamic, integrated models that provide the players with unmatched flexibility in choosing and knowing how much they want to bet, how many players they're going to compete against and for how long they're going to wait for the delivery of the prizes while

keeping it all as simple, transparent and accessible as possible.

The pools and the prizes are entirely comprised of the players' bets and there's no direct involvement from the house whatsoever in the betting scheme except for a marginal fee (amounting to only 1% of each bet). This provides the players with the absolute assurance that the house is merely a facilitator of the game that has no investment in the notion of who is going to win and how much, and hence render any attempts of manipulation pointless.

Furthermore, the means of betting replaces the ancient, blunt ones like tickets, dices, numbers..etc with a more modern & refreshing means through the introduction of a fully functioning and detailed world map that allows players to choose any city within it as their betting mean (fully explained in Ryfts Models).



3.2 RYFTS MODELS

Ryfts introduces two game models, each with its unique odds system, layout and pool size:



Time Based Raffle: In which the draw is time based and it happens when the timer hits “00:00:00”. The model contains 3 types of draw periods: Every 06 Hours, 24 Hours or 168 Hours (7 Days). The longer the time period, the higher the number of players in the pool and hence the larger the size of the pool.

The interface in this model resembles a world map with cities as tickets to choose from, and two indicators. The first one is a timer indicating how much time is left till the draw happens in the format of “XX:XX:XX” and the second is a counter of how many players are there at every current moment. The cities that have been chosen by other players will be grayed-out stating that they can’t be chosen.

The minimum threshold of number of players is 21. If that number isn’t reached in any of the 3 time based types by the time the counter hits zero, the players get their betting amount back.

This model have no cap limit which means the size of the pool in each type could vary greatly and this could provide the players with a high-yield bet. Even with the counter of number of players currently in the pool, the final odds are still ambiguous and could be very high at the final hour, but the returns will also be very appealing.

In all of the three types of the time based model, players have the option to participate either with a small sized bet (amounting to 1\$ ticket), a medium sized bet (amounting to 10\$ ticket) or a large sized bet (amounting to a 100\$ ticket). This gives the players even more control over their desired pool size.



Possible game models for different type of players

Possible participation bets for bigger or smaller players

3.2 RYFTS MODELS

2

Cap Based Raffle: In which the draw is cap based and it happens when the number of participating players reaches a certain maximum limit. The model contains 3 types of draw caps: 100 Players, 1000 Players or 10000 Players.

The larger the cap level, the higher the number of players in the pool and hence the larger the size of the pool.

The interface in this model resembles a world map with cities as tickets to choose from, and one indicator. It indicates how many players are left to fill the maximum cap for the draw to happen in the format of "XXXXX/XXXXX". The cities that have been chosen by other players will be grayed-out stating that they can't be chosen.

The maximum threshold of passed time in order for the cap to reach its limit is 168

hours (7 days). If the cap limit isn't reached in any of the 3 cap based types by the passing of 7 days, the players get their betting amount back.

This model have no time limit which means the draw in each type could happen at various time frames depending on the cap fulfillment. This type provides the players with a calculated risk-return bet. The odds and returns are calculated beforehand knowing exactly the number of players participating in each draw.

In all of the three types of the cap based model, players have the option to participate either with a small sized bet (amounting to 1\$ ticket), a medium sized bet (amounting to 10\$ ticket) or a large sized bet (amounting to a 100\$ ticket). This gives the players even more control over their desired pool size.



10 players

or



1000 players

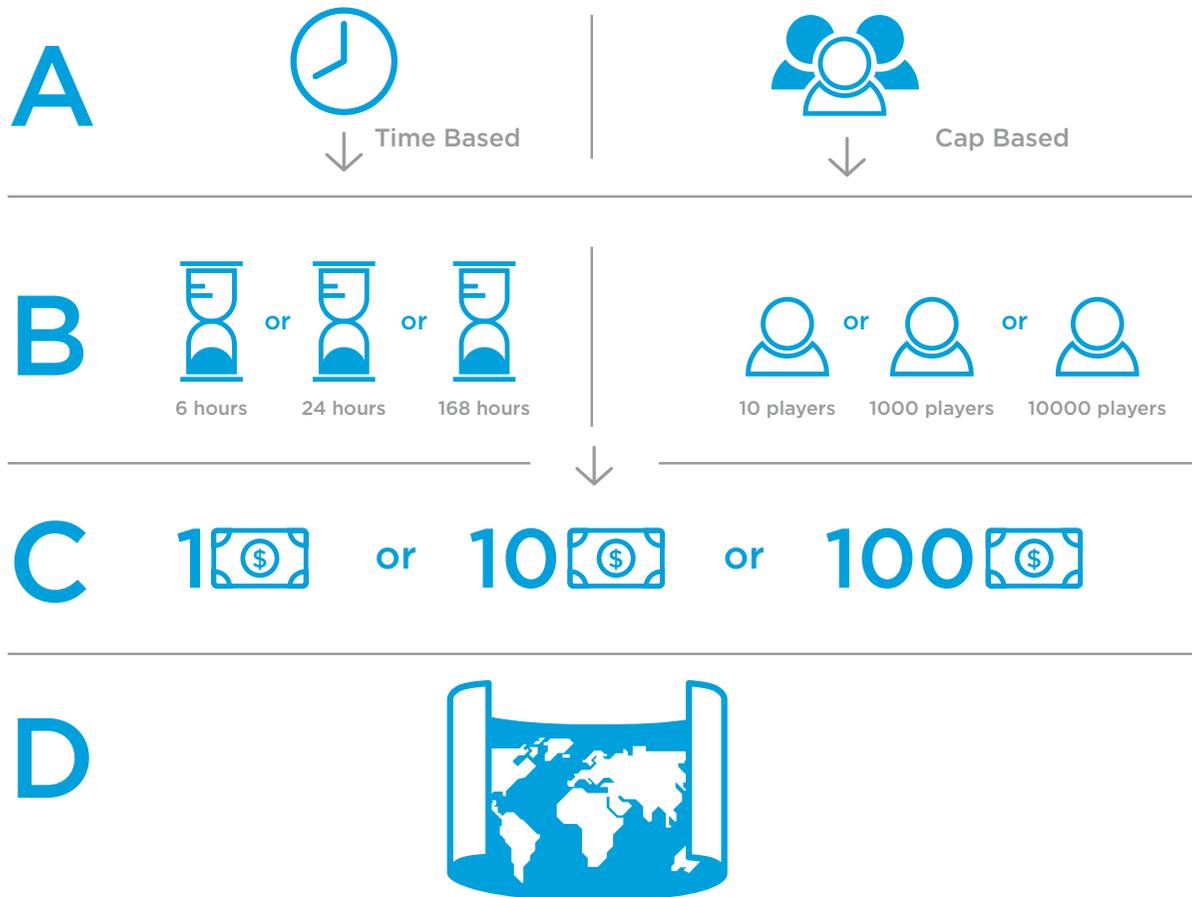
or



10000 players

3.3 RYFTS STRUCTURES

1.0 BETTING STRUCTURE



A. First Step: The player chooses the type of raffle in which he/she wishes to participate in, either the Time Based Model or the Cap Based Model.

B. Second Step: The player chooses one of three type variant options under each category (06 Hours or 24 Hours or 168 Hours) if he previously chose the Time Based Model in step 1, or (100 Players or 1000 Players or 10000 Players) if he previously chose the Cap Based Model in step 1.

C. Third Step: The player chooses the amount of the bet (ticket price) which is one of three amounts in USD equivalent* (1\$ or 10\$ or 100\$). Only players with the same ticket price can bet against each other, it means that players who chose 1\$ ticket price will only play against players that chose the exact same amount, and therefore the pool will be consisted of 1\$ bets.

D. Fourth Step: Instead of using traditional ticket layout that uses numbers, Ryfts tickets (Which could be bought either with RFT tokens or ETH) resemble cities that can be chosen from a fully functioning world map right before entering any type of betting round. The player bet the previously chosen amount in Step 3 by choosing a desired city from the main raffle pool, which is the map.

3.3 RYFTS STRUCTURES

2.0 FEE STRUCTURE

The house takes a fixed fee of 1% of each bet. Once the player chooses a city -as in Step 4- which constitutes placing a bet, a house fee of 1% will be deducted from the betting amount, and the player's bet (after fee deduction) will be added to the pool.

3.0 PRIZE DISTRIBUTION STRUCTURE

Once the timer hits zero or the cap is reached, a random number generation process will take its place to select and decide 11 winning countries respectively from the pool of all countries that players previously chose.

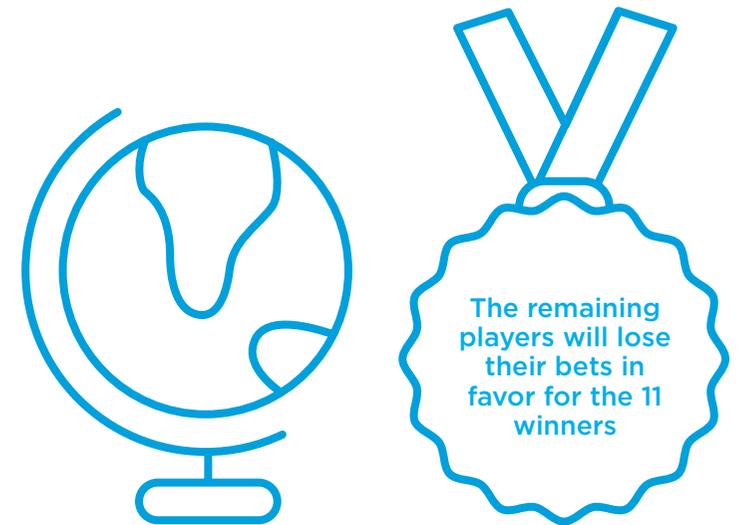
- The first selected/winning country will grant its chooser/holder the jackpot of 90% of the entire pool.

- The next 10 selected/winning countries will grant their choosers/holders their investment/bet amount back, which constitutes 1% for each.

- The remaining players will lose their bets in favor for the 11 winners.

- Pool prizes will be paid out and delivered to the winners' wallets in ETH.

A random number generation process will select and decide 11 winning countries from the pool of all countries



3.4 RYFTS FEATURES

- Anonymity, any person from any place in the world can use Ryfts platform without providing any private information.
- Transparency, the draw process is operated by open-source software, the source code is shown in the open blockchain ledger and all transactions are reflected in the open blockchain registry.
- Security, all processes are guaranteed to be safe and secure and all prizes are guaranteed to be paid out in ETH.
- Instant payouts, all payments and payouts are executed instantly and automatically through Ethereum smart contracts with no third parties involved.
- Competitive fees, the house edge is very low with a fee percentage of only 1%.
- Flexible odds, the combination of various types and sub-types of Ryfts' models and bet sizes provide the players with a generous degree of control over the odds they want to play against.

Table 1 Ryfts vs. Traditional Lotteries/Raffles vs. Online Lotteries/Raffles

	Traditional Lotteries/Raffles	Online Lotteries/Raffles	Ryfts
Odds Flexibility	Inflexible, Uncontrollable	Inflexible, Uncontrollable	Flexible, Controllable
Odds of Winning	Extremely Low 1 in 10,000,000s	Low 1 in 100,000s	Very High 1 in 1,000s or 100s
House Edge	Very High More than 30%	High 10-15%	Very Low 1%
Instant Payouts	No	No	Yes
Provably Fair	No	No	Yes
Transparent	No	No	Yes
Anonymous	No	No	Yes

* The pricing of Ryfts' tickets/bets is equivalated in U.S. Dollars to avoid the fluctuations in ETH or BTC prices.

4.0 BUSINESS MODEL



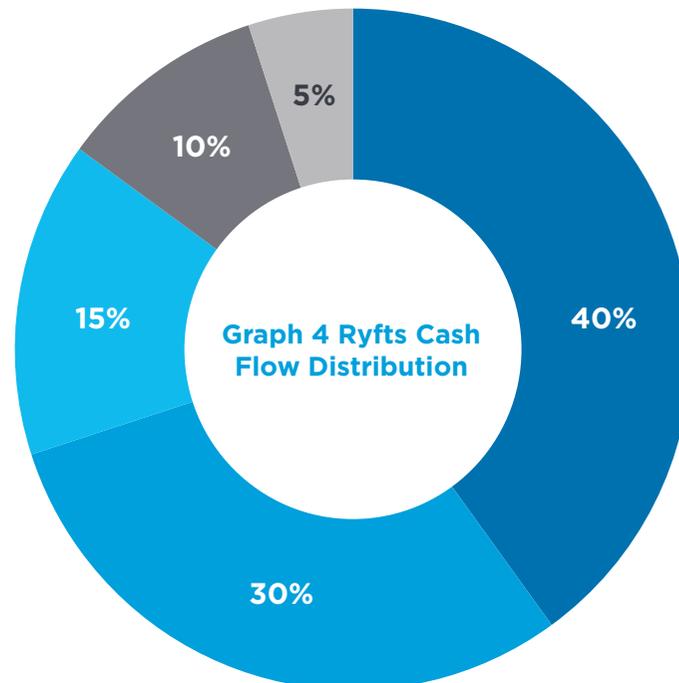
The main service that generates Ryfts' profits is ticket/bet fees. The graph below demonstrates how cash flow is assigned to main areas of expenditures.

The fee comprises 1% of each bet amount (the bet amount is either

1\$, 10\$ or 100\$). Our basic forecast suggests 500 placed bets per day.

After the marketing campaign is over, the daily turnover in our model might reach 10'000 placed bets.

- Reserve Fund
- Development
- Marketing
- Operations & Legal
- Ryfts Team



After the fee is deducted from the bet, the funds will be distributed as follows:

1. 40% will be reserved for payouts in ETH and for granting investors rewards
2. 30% for further development of the platform
3. 15% for marketing
4. 10% for operating expenses & legal fees
5. 5% goes to Ryfts team

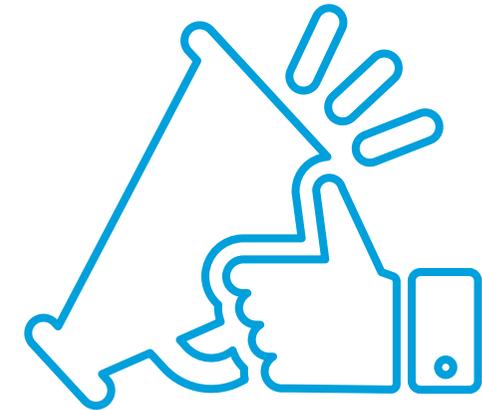
5.0 MARKETING PLAN

For all businesses (both offline and online), whether a modest start up or a multinational giant, an effective marketing strategy can serve as a crucial roadmap for the entire business.

By developing and establishing a coherent and well considered marketing strategy, organizations can promote their business, court the right types of client and allocate their resources correctly, all while safeguarding the reputation of the business.

As such, effective marketing strategies are comprised of numerous facets that companies must consider at all times, and a comprehensive and effective marketing strategy is something businesses must employ at all costs.

Ryfts' utilized SWOT & PEST [9] analysis alongside with an integrated and comprehensive Ansoff Matrix [10] of the business plan will be carried out by three main facets:



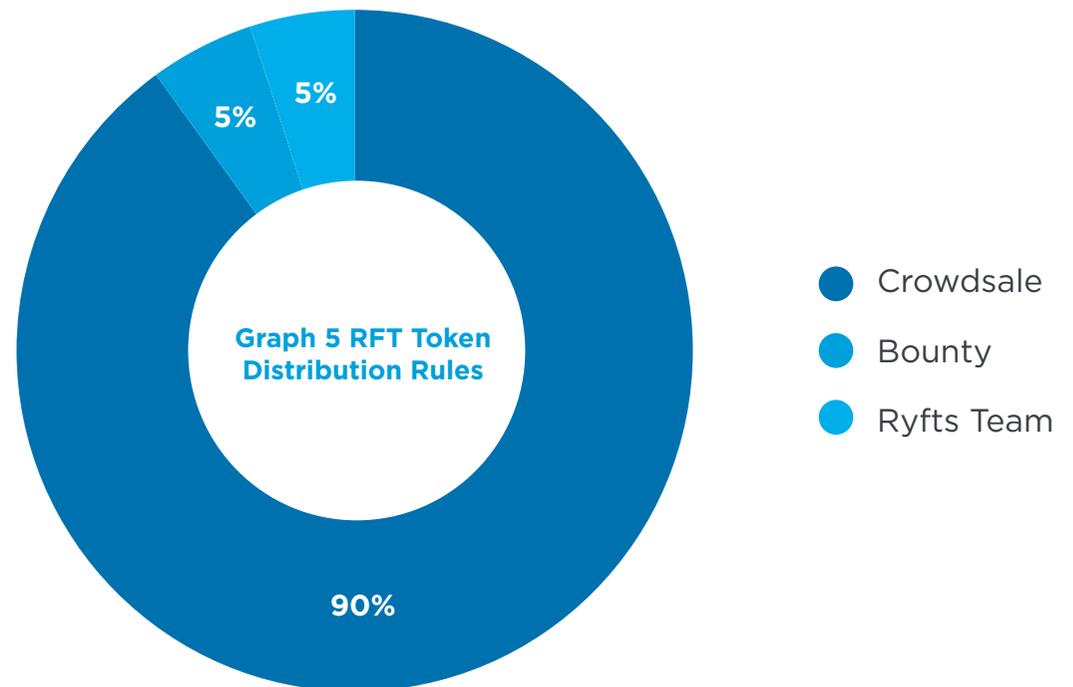
1. Social Media: Social media outlets (social networks, discussion forums, blogs) are increasingly becoming one of best ways for promoting a product and enabling the companies to track the progress, success and engagement of ad campaigns through their own built-in data analytics tools. We will use the massive power of these outlets in a comprehensive way to run public campaigns and spread its marketing strategy.

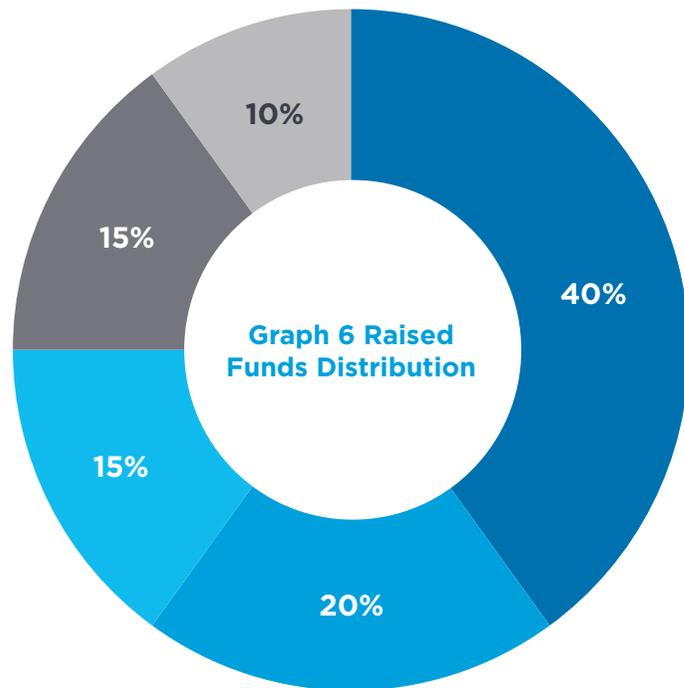
2. Advertising Agencies: One of the most traditional but reliable marketing strategies is to seek the services of specialized and competent advertising agents. We intend to conduct various media advertising and PR campaigns through the offered services of highly respectable and professional advertising agencies. It will be expensive, and hence a big chunk of the raised capital will go to marketing.

3. Partnership Networks: A partnership network is a technological platform that facilitates the connection and information transfer and interaction between advertisers and partners. Any kind of business organizations get an opportunity of holding advertising campaigns online. On the other hand, media partners get instruments for selection and deployment of advertising offers.

6.0 TOKEN SALE

Token name	RFT
Utility of token	Buying tickets in any Ryfts models + Acquiring a special royalty ranking status (explained in "Investors Rewards" below)
Coins accepted	BTC, ETH
Minimum number of sold tokens required	3,000,000
Maximum supply of tokens	33,000,000
Tokens available for sale	30,000,000 (Crowdsale 90%)
Tokens emission	3,000,000 (Bounty 5% + Ryfts Team 5%)
Token price	1 RFT = 0.5\$*
Unsold tokens policy	Burned





RAISED FUNDS DISTRIBUTION:

- 40% Reserve Fund**
- 20% Marketing & Advertising
- 15% Product Development
- 15% Infrastructure Costs
- 10% Operations & Legal

* The pricing of Ryfts' token (RFT) is estimated in U.S. Dollars to avoid the fluctuations in ETH and BTC prices.

** For backing up payouts in ETH and granting investors rewards.

7.0 INVESTORS REWARDS



Ryfts implements a royalty ranking mechanism which consists of 4 types of rankings that represent a membership of sorts by creating a secondary wallet for the player for the purpose of adding reward tickets to it from the reserve fund.

These tickets allow players of certain membership rankings to participate in free rolls each week for a certain period of time. These royalty rankings are as follows:



1- Platinum Membership: is awarded to the top 10 investors in the crowdsale. It gives its holder the right of participating in a weekly freeroll for lifetime. Platinum members are also exempt from paying fees (0% fee).

2- Gold Membership: is awarded to the top 11-50 investors in the crowdsale. It gives its holder the right of participating in a weekly freeroll for 1 year.

3- Silver Membership: is awarded to the top 51-200 investors in the crowdsale. It gives its holder the right of participating in a weekly freeroll for 3 months.

4- Basic Membership: it doesn't have any privileges, and it's consisted of both newcomers who pay for tickets in ETH and investors who fell in the range after the top 200 investors in the crowdsale.

TOP 10 INVESTORS

Platinum Membership (weekly freeroll for life + 0% fee)

TOP 11-50 INVESTORS

Gold Membership (weekly freeroll for 1 year)

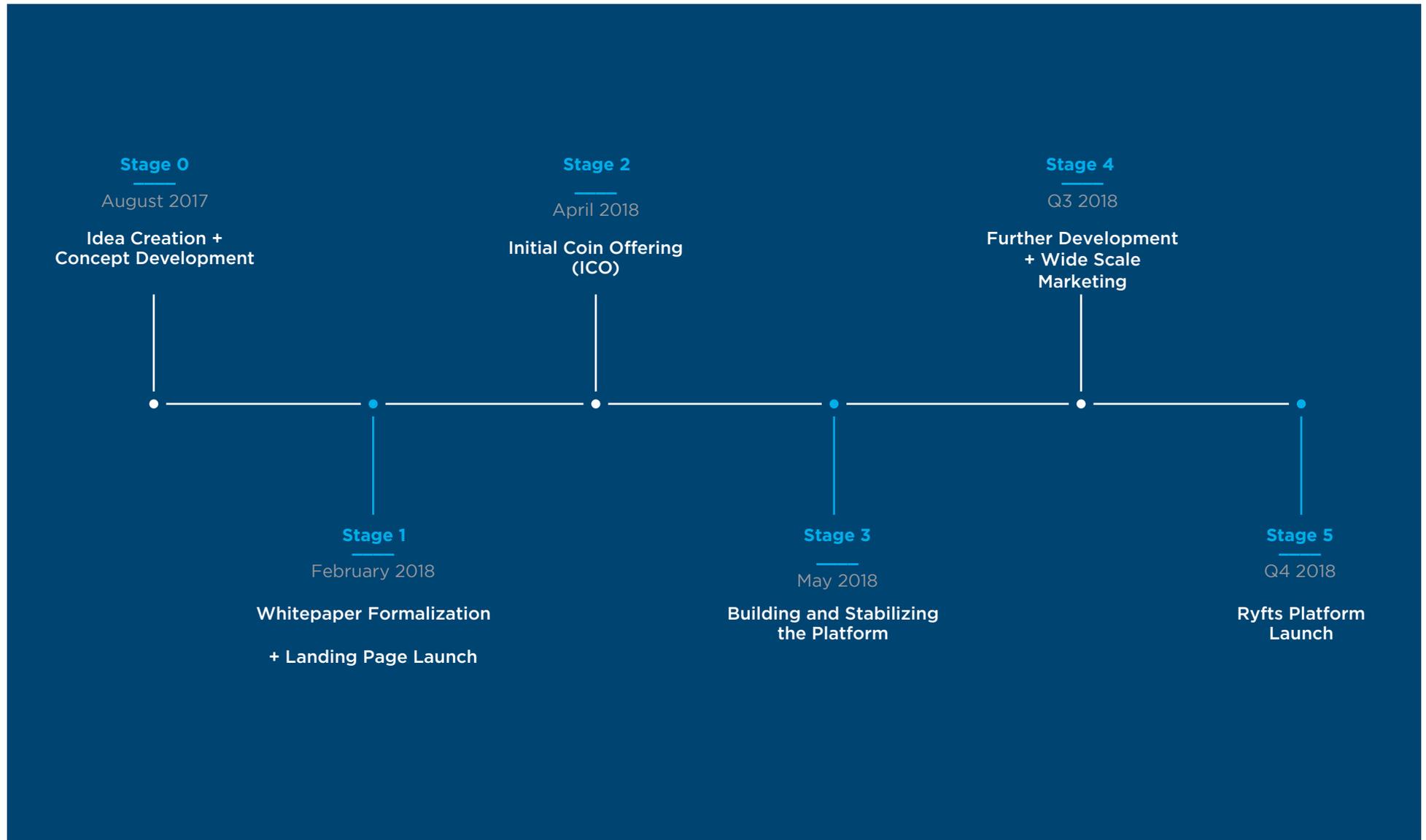
TOP 51-200 INVESTORS

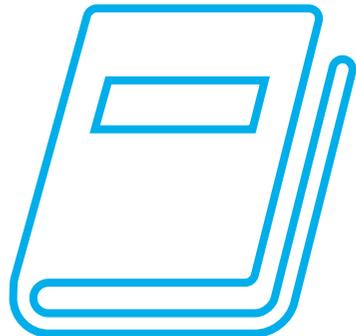
Silver Membership (weekly freeroll for 3 months)

>200 TOP INVESTORS + NEWCOMERS

Basic Membership (no special privileges)

8.0 ROADMAP





[1] Global Betting and Gaming Consultants
<http://www.gbgc.com>

[2] global growth of gross gaming yield (GGY) by yearly growth
<http://www.gbgc.com>, <https://slotegrator.com>

[3] global growth of gross gaming yield (GGY) by method
<http://www.gbgc.com>, <https://www.statista.com>

[4] size of the online gambling market
<http://www.gbgc.com>, <https://slotegrator.com>, <https://www.statista.com>

[5] smart contracts
https://en.wikipedia.org/wiki/Smart_contract

[6] Ethereum smart contracts
<https://www.ethereum.org/greeter>

[7] random number generation
<https://www.random.org/randomness/>

[8] Powerball lottery
http://www.powerball.com/pb_home.asp

[9] SOWT & PEST analysis
https://en.wikipedia.org/wiki/SWOT_analysis,
https://en.wikipedia.org/wiki/PEST_analysis

[10] Ansoff Matrix
https://en.wikipedia.org/wiki/Ansoff_Matrix