

Esports Smart Tournaments



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Abstract

Esports platform Eloplay.com allows players to organize and participate in tournaments with decentralized prize pools. The Eloplay team has managed to develop and test a set of hypotheses, and to bring the project to life in 18 months.

The next stage is to raise funds over a Token Sale to expand the platform's audience, add new games and game consoles, and run extended advertising campaigns in order to reach new markets of the EU, the USA, and China.

The platform is made for:

- players and teams who want to battle for prizes and rewards;
- brands and organizations who want to conduct tournaments by themselves;
- advertisers who target esports audience.

Global brands and game developers conduct major tournaments with million dollar prize pools. However, only a small group of professional players can compete for those prizes. It creates inequality and leaves millions of amateur players aside with no chance to compete for major prizes.

Eloplay introduces Smart Tournaments with decentralized prize pools. They work on the smart contracts technology and allow players and brands to organize esports tournaments. We're also implementing Eloplay Tokens to support the Smart Tournaments ecosystem.

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Introduction

1.1 Market Overview

Esports are a form of competitive computer gaming[1] and a new kind of sports, rapidly gaining popularity among the youth[2]. Esports will be an official discipline at the 2022 Asian Games in China, which is the boldest step yet toward mainstream recognition of competitive gaming[3]. And it might be added to the Olympic programme as an official medal sport in 2024[4].

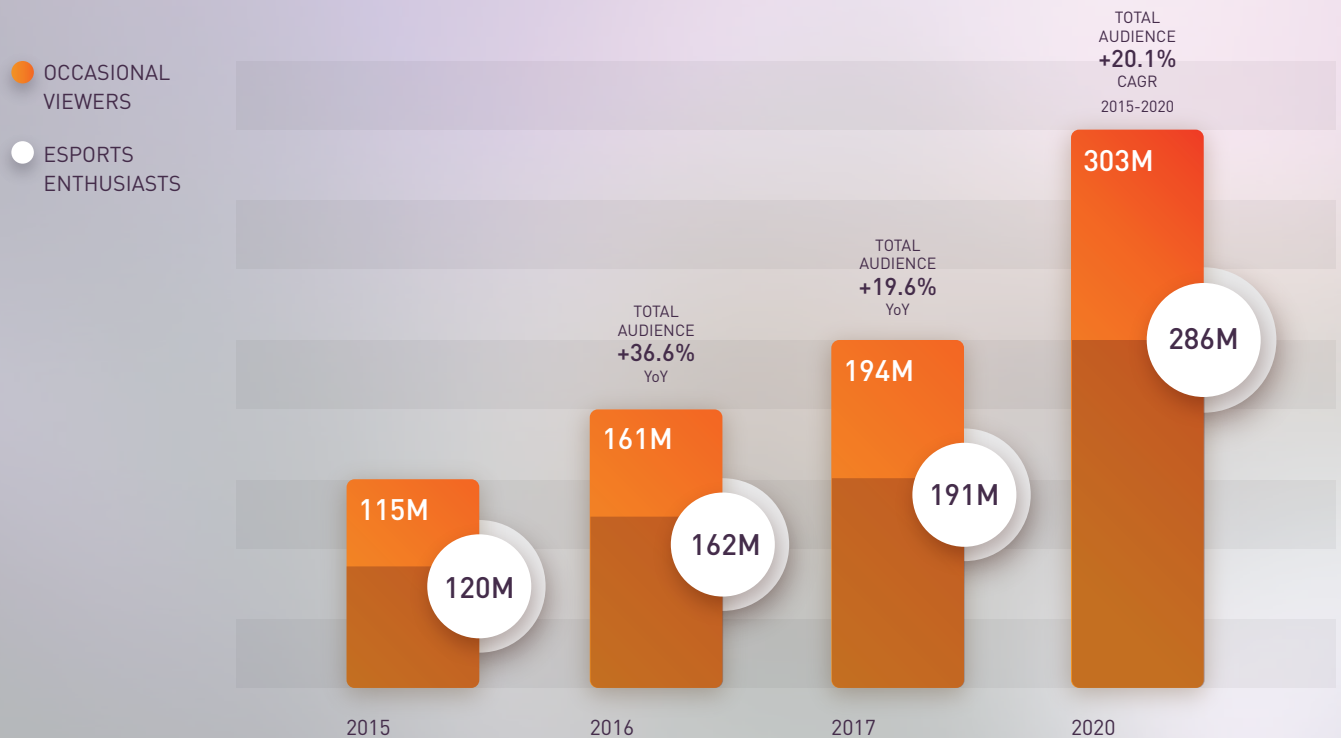
Video games have turned into a global esports market with revenues turnover that might reach \$1.5 billion by 2020. Experts call esports the investment opportunity of the decade[5].

The esports market is booming.

The global esports audience will reach 385 million in 2017, including of 191 million esports enthusiasts and a further 194 million occasional viewers. The global esports awareness will reach 1.3 billion people in 2017 and is estimated to reach 1.8 billion people by 2020. The overall number number of esports participants in the world will have reached 58.4 million by the end of this year[7].

ESPORTS AUDIENCE GROWTH

GLOBAL | 2016-2020



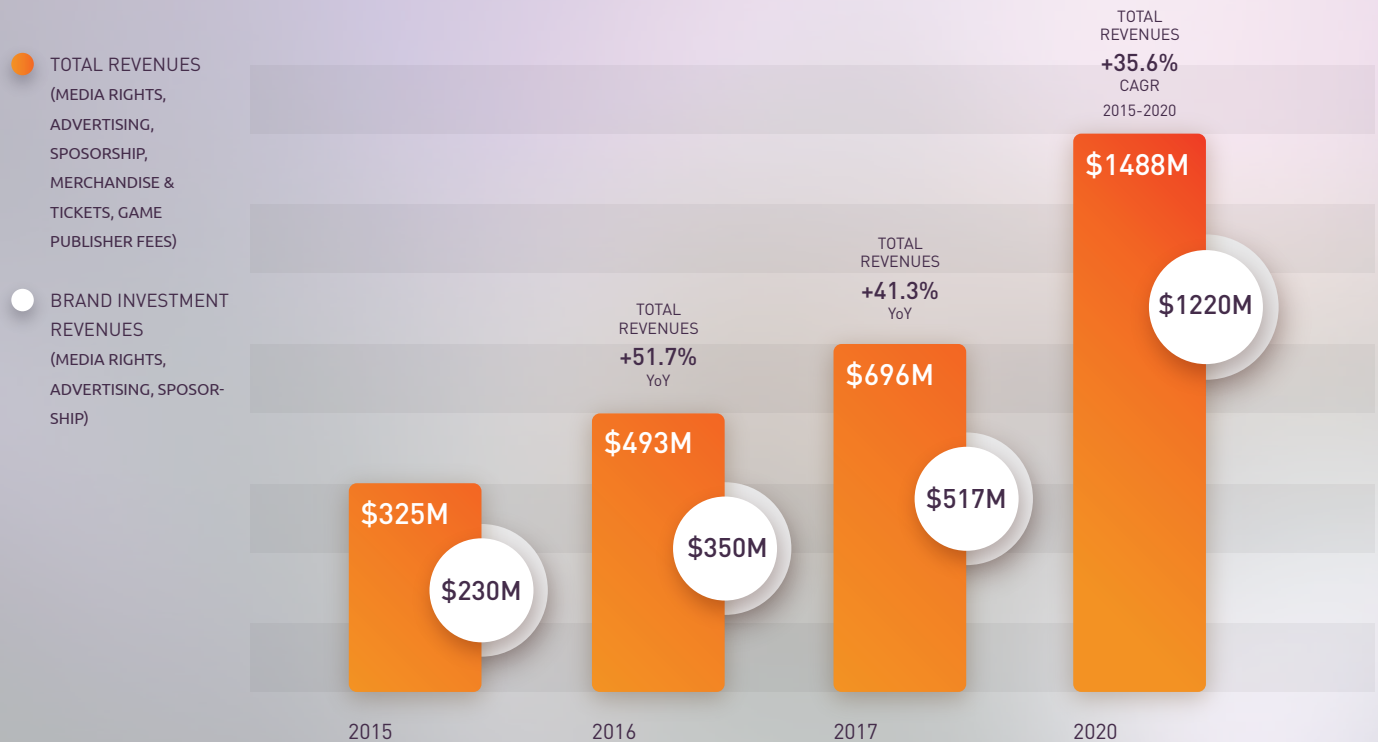
Picture 1. The growth of the esports audience

The basic audience of esports mostly consists of young males (71 per cent), with more than a half of them being 21 to 35 years of age. Most of them are employed and have solid income, which makes this market segment explicitly attractive to companies and brands of many kinds.

The esports market is a 385,5 million people global audience who spend \$230 million a year.^[7]

ESPORTS REVENUE GROWTH

GLOBAL | 2015, 2016, 2017, 2020



Picture 2. Esports Revenue Growth

Revenues will have reached \$1,488 million by 2020, with the sponsorship being the largest source of income at \$655 million[6]. New brands entering esports, especially those non-endemic, will drive the growth in sponsorship revenues in the years to come. Advertising generates the second biggest revenue, and will grow to \$224 million by 2020[7].

1.2 Current Esports Challenges

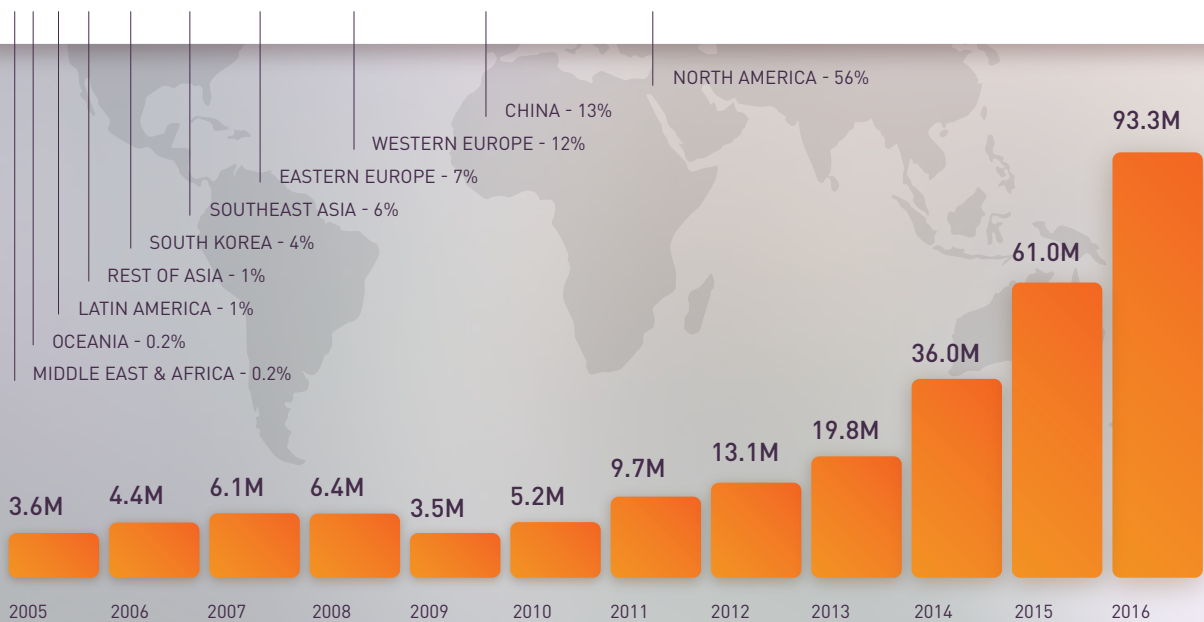
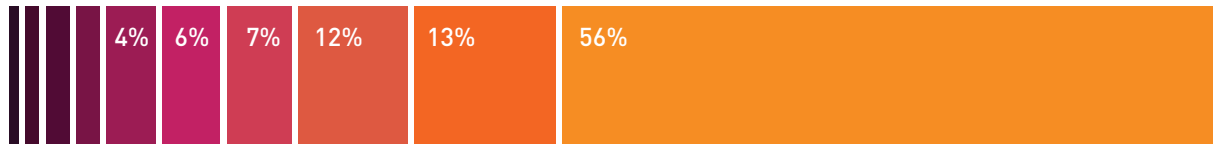
Tournaments are the most exciting esports events.

The overall prize pool at major events where prize funds exceed \$5,000 has reached \$93.3 million in 2016.

MAJOR EVENT PRIZE MONEY

SPLIT PER REGIONS | GLOBAL | 2016

\$93.3M



Picture 3. Esports major event prize money

Major tournaments are organized and funded by global brands and game developers, but there's only a handful of elite players that can compete for those prize pools.

This situation creates disparity in esports and leaves amateurs no chance to compete for major prize pools.

ESPORTS CHALLENGES



Picture 4. Sports challenges

Eloplay introduces Smart Tournaments with decentralized prize organized by individual players, organizations or brands. These tournaments work on Ethereum smart contracts.

This solution enables the entire ecosystem to be scaled up by attracting a great audience of enthusiasts to sports tournaments, and opens the gate for the platform's expansion to new markets.

1.3 Smart Tournaments Market Potential

Smart Tournaments are a blockchain-based ecosystem that brings automation to conducting an esports event. For players, it's a completely new opportunity to self-organize, launch tournaments and establish collective prize pools. For brands, the tournaments offer a direct access to the esports audience. It might take the form of a brand-led tournament, or just ad placement at the platform.

Smart Tournaments offer new opportunities for esports enthusiasts and have the potential to be scaled to three types of existing esports markets.

ESPORTS GROWTH BY COUNTRY

	Year growth pace, %	Market volume, \$ mln.	
		2016	2020
UNITED KINGDOM	+32.1	9	35
GERMANY	+19.4	32	77
INDIA	0	0	0
CHINA	+26.4	56	182
RUSSIA	+33.2	4	16
USA	+22.6	108	299
JAPAN	+36.3	5	23
WORLD	+21.7	327	874

Picture 5. Esports growth by country

The main goal of Eloplay is to expand geographically. Presently, the project is operational and being tested in post-Soviet countries, with Russia being the prime market of \$4 million of annual turnover. Introduction of Smart Tournaments would allow the platform to enter the leading markets in terms of revenues and development rate, being China, the USA, Germany, and the UK.^[8]

Another way to attract new players to Smart Tournaments implies adding new games to the platform. Every game means additional audience with millions of new players. Overwatch has 30 million players^[9], World of tanks has 60 million^[10], and Rocket League has 30 million^[11], to name a few.

The third way is to use game consoles. The market consists of 55 million Xbox^[12] monthly users and 70 million of PlayStation4 players^[13].

Esports Smart Tournaments

2.1 Eloplay.com

The project kicked off in November 2015 with the idea to create a service for one-on-one video games competitions. In April 2016, the platform hosted the first trial battles where opponents were chosen randomly. The winners received bitcoin rewards.

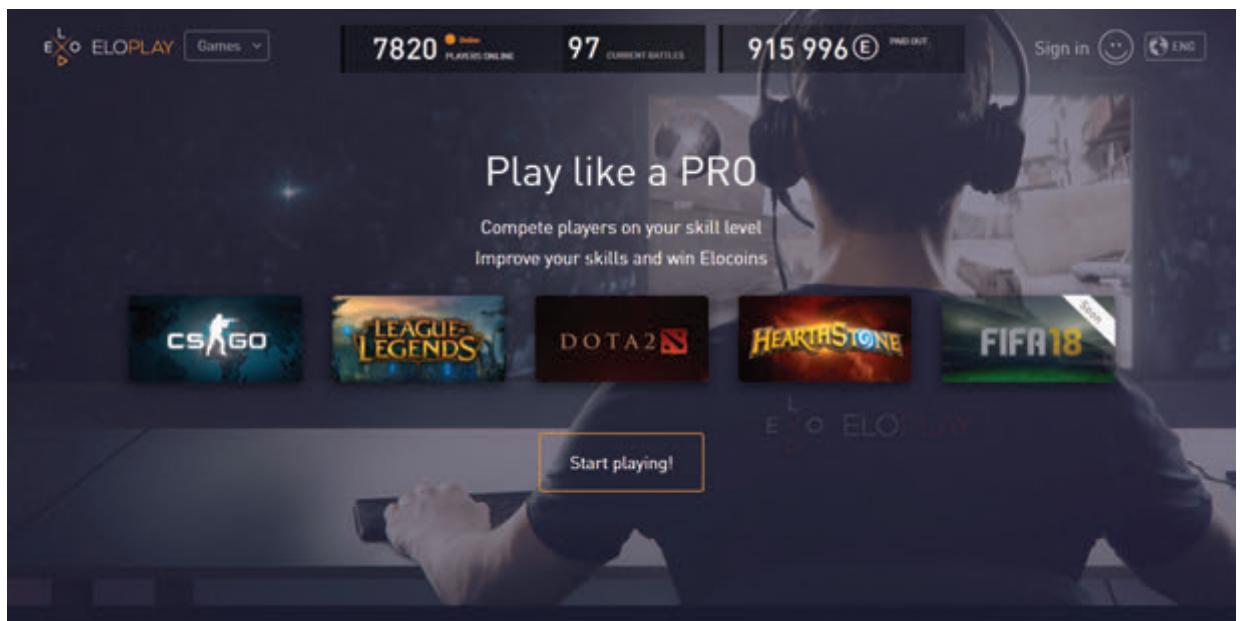
Today Eloplay is an operational esports platform with 90,000 registered users and 80,000 finished battles. We've already hosted 3,500 one-on-one and team tournaments.

The platform supports the most popular esports disciplines:

Esports discipline	Monthly active users
League of Legends ^[14]	100,000,000
Hearthstone: Heroes of Warcraft ^[15]	70,000,000
Dota2 ^[16]	12,500,000
Counter-Strike: Global Offensive ^[17]	11,600,000

Table 1. Esports disciplines on Eloplay

There are 3 competitive modes on the platform: quick battles (matchmaking with random opponent), duels (select with whom to fight), and tournaments. The site offers Russian and English interfaces.



Picture 6 .Eloplay.com

Eloplay is community-driven startup. Most ongoing tournaments are organized in cooperation with enthusiastic esports organizations of post-Soviet countries. That keeps the Eloplay team connected with our audience. And we're determined to keep on that approach in the future when it comes to work with global esports organizations.

We understand that blockchain and smart contracts technology provide new opportunities to the platform development. After initial implementation of smart contracts for Smart Tournaments there is a plan for new modules (development of which may take more than 24 months). These modules would offer detailed analytics of player stats and game preferences, ladders (esports championships), a system for talent scouting, a system for players' contracts and transfers between teams, a system for prediction of winners, and a betting module.

2.2 The Eloplay Token

The main accounting unit at the platform is the cryptographic Token Eloplay (ELT). It can act both as a tool for encouraging activities at the platform and as an access Token for certain Eloplay modules.

EloplayToken (ELT) is an ERC20^[18] standard Token on the Ethereum platform. It is compatible with wallets, stocks, and is a transferable active. ELT allows its holders to:

- Organize and participate Smart Tournaments;
- Advertise on Eloplay;
- Purchase game inventory and other virtual goods at the Eloplay Store.

EloplayToken (ELT) will be implemented on the platform within 3 months after the Token Sale ends.

At the moment, the main accounting unit and reward for the players is the virtual points called Elocoins. Elocoins are centralized and have a fixed exchange rate (1 Elocoin = \$0,01).

Elocoin is used for payment purposes and for rewarding tournament winners. It was implemented as method of work with fiat money. The advantage of Elocoin is that it is easy to integrate with the platform, and allows one to work with classic payment systems (Visa, Mastercard, Webmoney, Payeer, Yandex Money, Qiwi). Elocoins can also be purchased with Bitcoin.

Having Elocoin onboard allowed the team to test some of our hypotheses. For instance, there was a test of correlation between tournament prize pools and the number of participants; analysis of players' involvement in free and paid game modes; analysis of the customer base's monetization following certain service plans. The total amount of rewards paid out to the users comprised nearly \$10,000.

At the same time, Elocoin has certain limitations which restrict its usage in Smart Tournaments. It can't be transferred to a third party and has unlimited emission. It deprives its holders from an opportunity to use it as digital asset. Elocoin can not be used in decentralized prize pools so it can't be used in smart tournaments as well.

The Eloplay team has discovered that the blockchain technology allows significant improvements of the platform.

That is why the Eloplay team has decided to implement EloplayToken. ELT is decentralized, can be transferred to third parties, has limited emission, and its exchange rate is not fixed.

Eloplay Token issuance and distribution

The amount of tokens to be issued will depend on the results of the Token Sale. The initial token distribution will be as follows:

Token allocation	Initial Token Offering Share
Token Sale	70%
Eloplay Team	15%
Advisory Board	5%
Token Sale Bounty Program	3%
www.bancor.network	3%
Long-term Bounty Fund	2%
www.wings.ai	2%

Table 2. Eloplay Initial Token Distribution

Once the Token Sale is over, users will have two wallets: one for Elocoins at the project's website, and the other for ELT on Ethereum blockchain. Please note that there will no options to convert Elocoins to ELT directly.

The implementation of Eloplay token will be stagewise. The first area of ELT application will be smart tournaments followed by a bonus fund and an ad module. As Eloplay is an operational platform with active users, there is a need to support game modes that are temporarily not connected to the blockchain. Those game modes will work with Elocoin, and will feature short battles and duels with random opponents. Once the first stages of the token's implementation are over, all modes will start using it, and Elocoin will become obsolete.

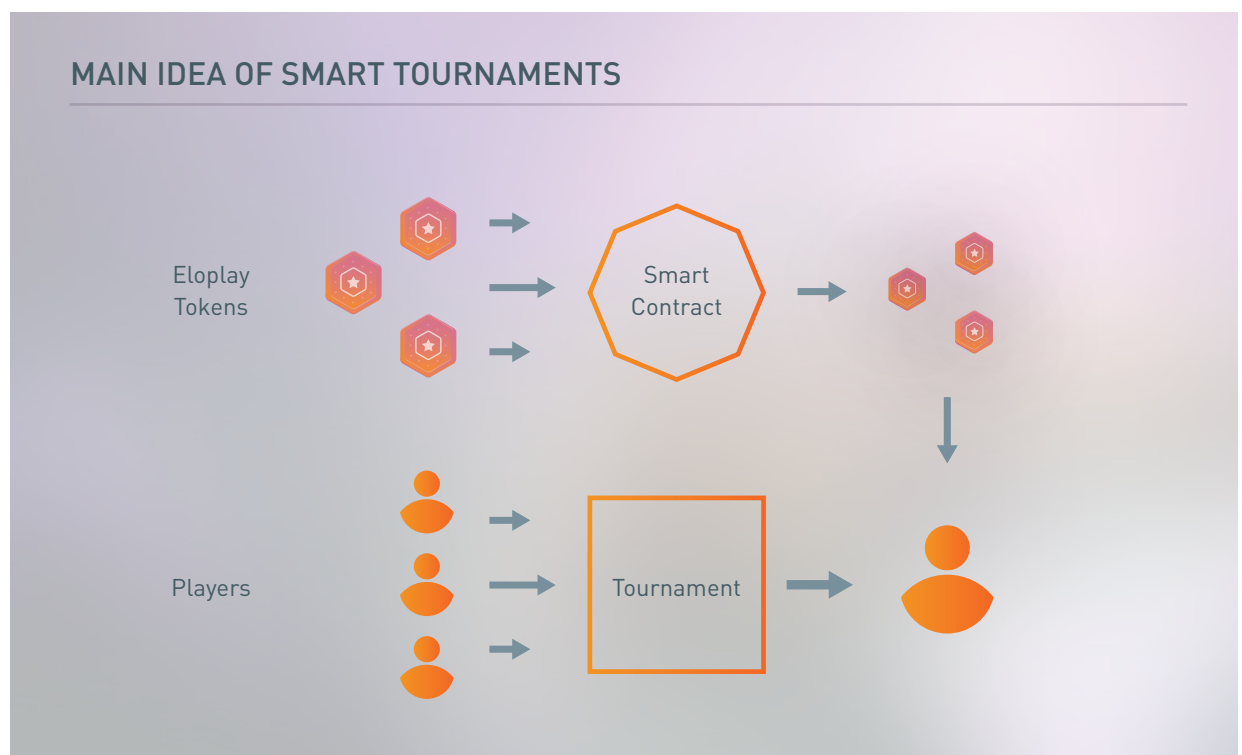
2.3 Smart Tournaments

Eloplay proposes Smart Tournaments as a solution to the challenges faced by esports today.

Smart Tournaments are esports skill competitions with decentralized prize pools. In these tournaments prize pools are funded by players or tournament organizers. Funds are gathered in Eloplay Tokens.

In technical terms, Eloplay's smart tournaments are an automatic software platform tracking and managing battles that make up a tournament. Its prime purpose is to determine winners in group competitions and distribute decentralized prize funds among them. The system completely excludes the human factor from the process and therefore makes biased judgments impossible. At the same time, Eloplay will feature tournament moderators who perform various administrative operations like ensuring teams are in place before the battle, but never influence the results.

Smart tournaments work as follows: once players enter the tournament, the smart contract receives the prize pool in Eloplay tokens and stores it until the tournament is over, i.e. when the winners are declared. At that moment, the tournament uses API to transfer ID's of the winners, their wallet numbers and amounts of winnings to the smart contract. That way, the winners get their prizes.



Picture 7. The basic principle of smart tournaments

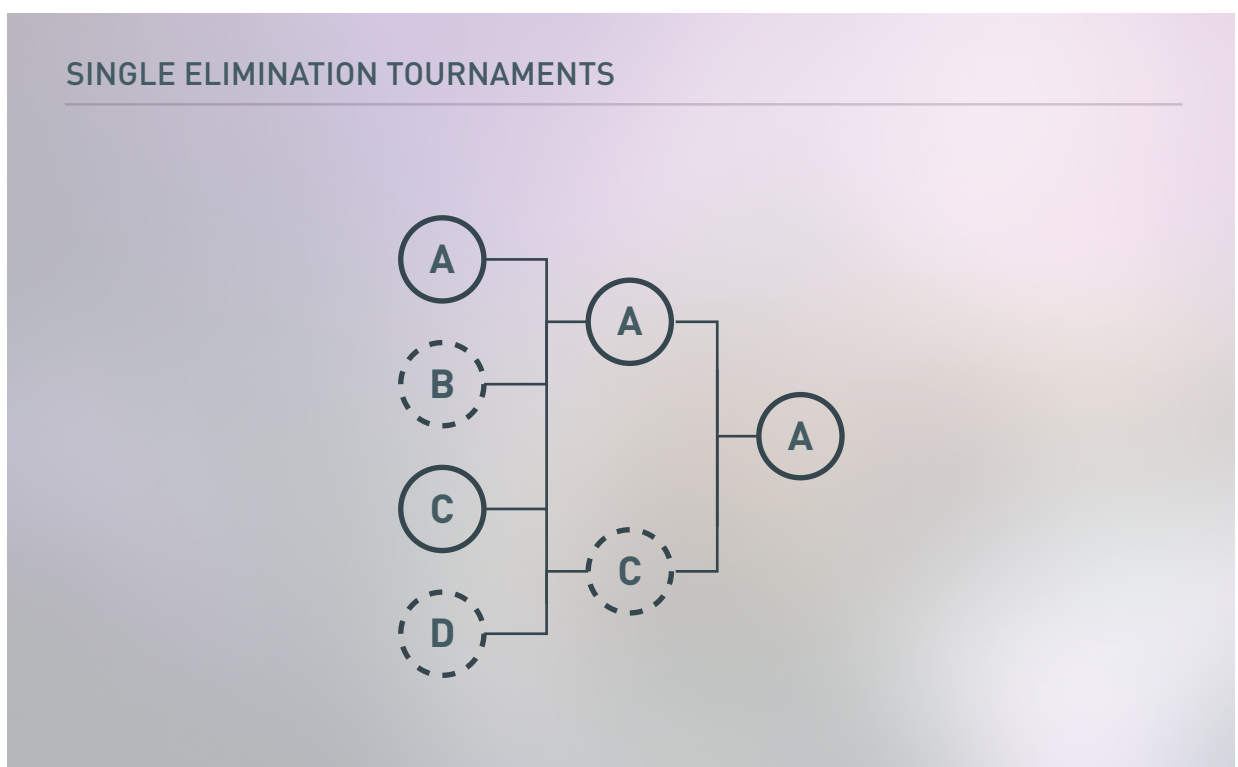
Smart Tournaments can be organized by:

- individual players;
- organizations or brands;
- Eloplay.

Each way has own features and the main difference is the method of prize pool forming.

There are few tournament formats already implemented on Eloplay:

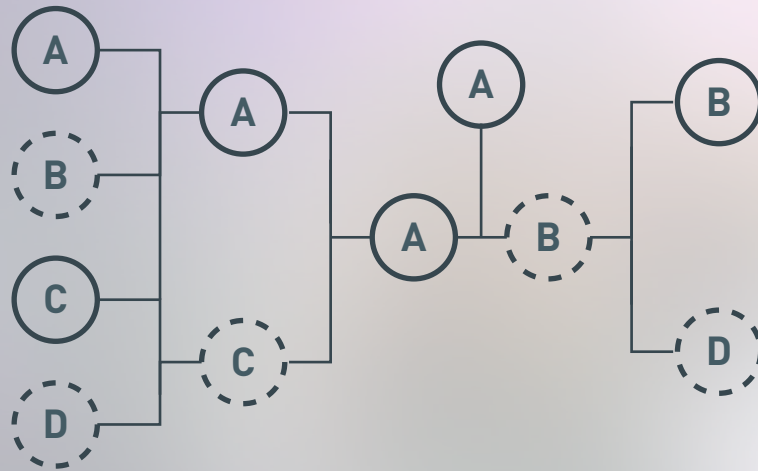
Single Elimination tournaments (olympic system). The winner passes to the next stage, while the loser leaves the tournament^[19].



Picture 8 . Single elimination tournament

Double Elimination tournaments. The winner passes to the next stage, while the loser passes to a game with a loser of a different battle. Thus, two branches (winners' and losers') are formed. The ultimate winners from those two branches battle in the finals^[20].

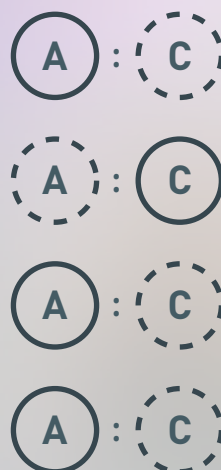
DOUBLE ELIMINATION TOURNAMENT



Picture 9. Double Elimination Tournament

Best of N tournaments. It's a system typical for esports finals. Two teams play against each other until the exact number of wins is reached. Usually it's 3 or 5.

BEST OF THREE TOURNAMENT



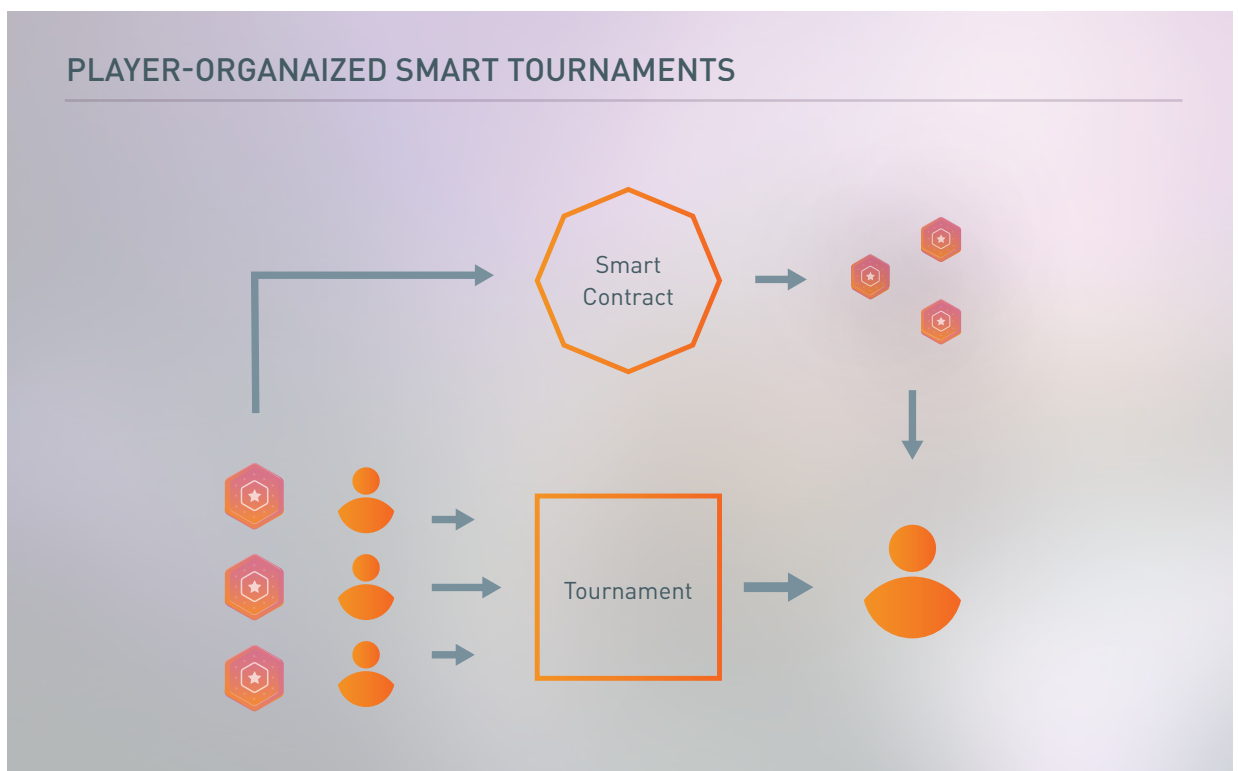
Picture 10. Best of Three Tournament

The maximum number of participants in one tournament is 256. Eloplay has already implemented a system which allows one to unite tournaments together and create filial tournaments whose winners pass to parent tournaments. This enables mergers of tournaments, and gather 512, 1024 or more participants in the same tournament.

Eloplay's tournament module provides organizers with tuning agility for tournament formats. For instance, they may use Double Elimination for qualifier tournaments, while the finals use the Best of Three mode. In case there are too many participants, tournaments may take several days.

2.3.1 Player-organized Smart Tournaments

The main idea behind player-organized Smart Tournaments is to give users freedom to create tournaments and make up decentralized prize pools. Once the entry fee is set, the prize pool is formed out of all entry fees paid by the participants.



Picture 11. Player-organized Smart Tournament

In order to launch a Smart Tournament, a player has to set the following:

- The game;
- Date and time;
- Tournament name;
- Tournament format (Single Elimination, Double Elimination, Best of N);
- Maps, rounds and other game settings;
- Entry fee;
- Number of winners (if there's more than one, they also have to describe the distribution of prizes among the winners).

When the tournament is set up, Eloplay generates a tournament page which can be used as a landing page for new participants*. The tournament is also referenced to at the homepage, and is visible to all Eloplay users.

The minimum entry fee at the platform comprises 10 Eloplay Tokens.

If the tournament has brought 20 participants together, the prize pool will have 200 Eloplay Tokens that will eventually be distributed as follows:

- 90% to be distributed among tournament winners;
- 8% to be paid as a bonus to the organizing player;
- 2% to Eloplay's Long-term Bounty Fund described below.

That model allows any player to initiate a Smart Tournament and earn Eloplay Tokens upon its completion.

Prize pools of \$5,000 and higher are considered major. In order to raise such funds for a tournament of 1024 players, one player would have to pay only \$4.88. The organizing player would have 8% of this fund, i.e. \$400. It is important to note, however, that USD prices are for explanatory purposes only, and in actuality all settlements will be conducted in Eloplay tokens.

Smart Tournament is the only opportunity for an amateur player to battle for a major prize pool.

Prize pools of Smart Tournaments can be scaled from \$5,000 to \$1,000,000 and so on.

* For instance, <https://eloplay.com/tournaments/3772>

To support Smart Tournament's popularity and incentivize players to participate, Eloplay offers a special promotion program:

- when a tournament gathers 16 participants we'll launch promotional posts in our social media channels;
- when a tournament gathers 64 participants we'll cover it with stream on our twitch channel*.

If a player-organized tournament fails to gather 8 participants, the initial fee goes to the Long-term Bounty Fund, while the rest of the participants are refunded.

Ethereum network gas fees

Smart contracts in Ethereum require gas payments for miners that process the transactions. The first gas fee after the tournament's creation is paid by Eloplay. However, the fee is then included in the entry fees for players, and is therefore paid by them. Once the tournament is over, the smart contract distributes the prize pool and sends 8% of to the organizer, plus 2% to Eloplay Long-term Bounty Fund. Fees in that case are again paid by Eloplay.

2.3.2 Sponsored Smart Tournaments

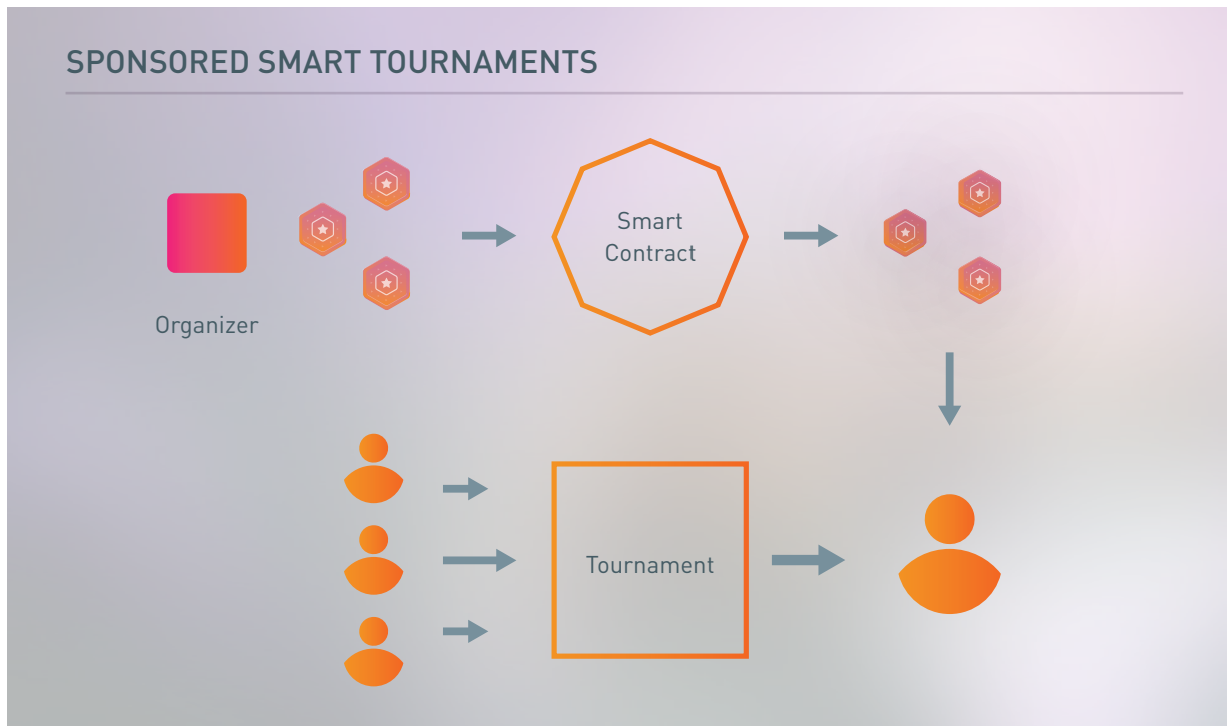
The main idea behind sponsored tournaments is about enabling brands, esports organizations, communities, and schools to conduct their own esports competitions.

Unlike player-organized Smart Tournaments, these are free to participate. Organizers can also set their own participation criteria (private tournaments accessed by links, geographically targeted, tournaments with preliminary qualifications, or any other condition at the organizer's discretion).

Prize pools are funded by Organizer. That means certain amount of Eloplay Tokens are sent to smart contract and, once the tournament is over, are distributed among winners. A fee of 2% of the entire prize pool is paid to Eloplay, and then reassigned to the Long-term Bounty Fund.

The minimum prize pool for a sponsored tournament comprises 100 Eloplay tokens.

* The exact values may vary as the platform expands. Eloplay may add new ways of promoting player-organized tournaments.



Picture 12. Sponsored Smart Tournament

Once the tournament is created, Eloplay enables the organizer to place their logo and banner at the tournament's page. The tournament is also announced at the homepage and is visible to all users.

If the sponsored tournament fails to gather 8 participants, the prize pool is returned to the organizer save the 2% fee paid to Eloplay's Long-term Bounty Fund.

The Ethereum gas fee is paid by the organizer when the tournament is created, and the prizes are distributed.

2.3.3 Eloplay Smart Tournaments

Since Eloplay will have a certain amount of Eloplay Tokens in the Long-term Bounty Fund, we will hold recurrent tournaments with prize pools formed by the fees previously paid to the LTBF. No payments will be involved in such tournaments.

It will allow Eloplay to engage new players and give them a chance to win tokens in open skill competitions.

Ethereum gas fee is paid by Eloplay.

2.4 Gas Fee in the Ethereum Network

The price of a single transaction in Ethereum network is calculated with ETH Gas Station[21] calculator. Average gas for an Eloplay smart contract is 200,000*. Gas calculator gives us mini-mum (\$0,026) and maximum (\$2,648) transaction fee. The calculation is performed on 25th August 2017. Ethereum exchange rate is: \$332.72.

Transaction Inputs

Gas Used*

Gas Price* ☒ Fastest (40 Gwei)
☐ Average (4 Gwei)
☐ Cheap (0.4 Gwei)
☐ Other

Predictions: Gas Used = 200000; Gas Price = 40 gwei

Outcome	
Mean Time to Confirm (Blocks)	3.7
Mean Time to Confirm (Seconds)	81
Transaction fee (ETH)	0.008
Transaction fee (Fiat)	\$2.648

Picture 13. Smart Contract Gas Fee Calculation

Over the first year of operation, Eloplay has held 3,500 tournaments for Counter Strike: Global Offensive and League of Legends. At current pace, the platform will host 2,000 to 2,500 tournaments a year for each of those games. After a successful Token Sale that number can get twice as high due to increased marketing efforts and explosive growth of the platform's customer base. Eloplay will hold approximately 5,000 tournaments a year for each game. That means 20,000 tournaments a year with 4 games on the platform with expectation to grow to 40,000 tournaments a year with 8 games.

This is the forecasted prices for gas in Ethereum required to service the specified number of tournaments.

Number of games	Annual amount of tournaments	Average number of transactions in a smart contract	Ethereum network gas fee	Annual Ethereum network commission	Average annual commission forecast
4	20,000	4	\$ 0.026	\$ 2,080	\$ 106,960
4	20,000	4	\$ 2.648	\$ 211,840	
8	40,000	4	\$ 0.026	\$ 4,160	\$ 213,920
8	40,000	4	\$ 2.648	\$ 423,680	

Table 3. Ethereum Gas Fee Prediction

* This value is taken for current calculation and can vary in future depending on smart contract's logic change or optimisations.

2.5 Long-term Bounty Fund

Eloplay introduces the Long-term Bounty Fund.

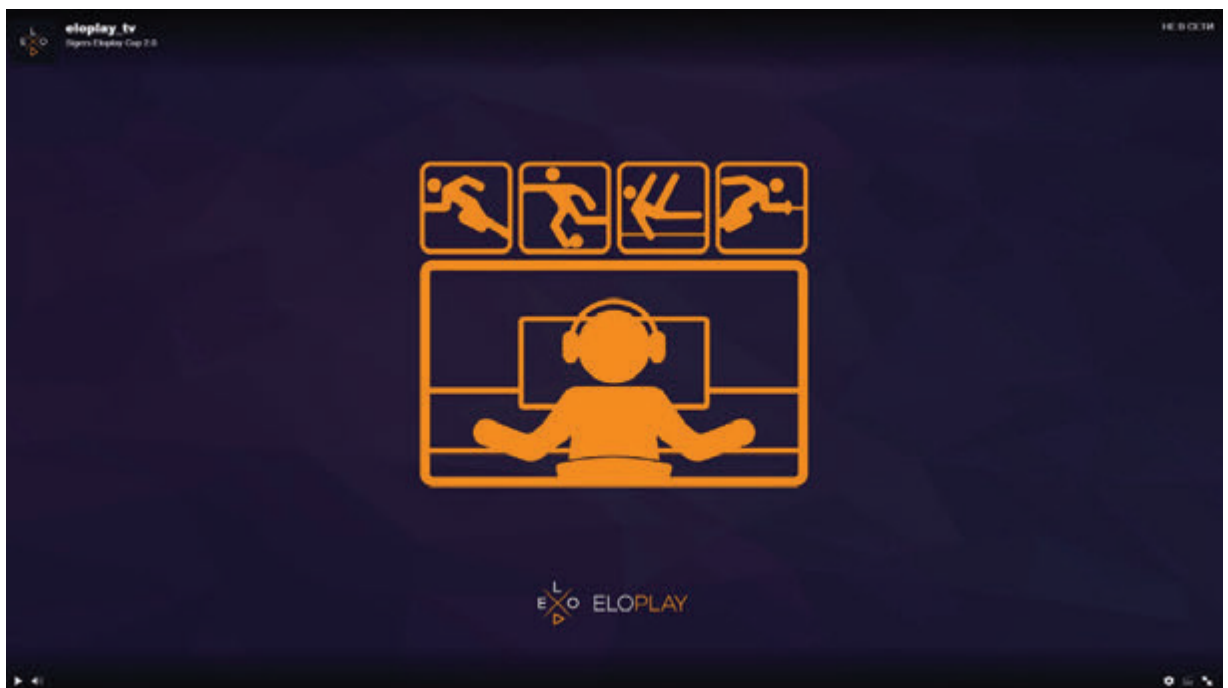
The fund will be formed after Token Sale ends from Eloplay Tokens acquired as follows:
2% from Token Sale + 2% fee from Smart Tournaments + tokens from Advertising.

The Long-term Bounty Fund will be used for Eloplay Smart Tournaments and for the Skill-Based Token Distribution System.

The Skill-Based Token Distribution System is to stimulate activity and give the best players an opportunity to win Tokens. It is a number of game achievements for new players. Players who achieve certain goals, such as total hours at Eloplay or number of kills in one game, will be rewarded with Eloplay Tokens.

2.6 Eloplay Stream Section

Current Eloplay tournaments are streamed to our Twitch channel[22]. We have a streaming team and we also collaborate with streaming studios. Over time, a commentary booth will be launched with professional commentators and analysts. That will improve the quality of the streams and allow one to analyze competitions in detail.



Picture 14. Eloplay Twitch

There will be a Streaming Section, which is the directory for all streams from Eloplay. It will also include streams of major esports events. That section is the main stream for monetisation via advertising.

Today Eloplay supports the most watched games on Twitch[23].

MOST WATCHED GAMES ON TWITCH

JULY 2017

	Total Hours	Esports Hours	Share Esports
COUNTER-STRIKE: GLOBAL OFFENSIVE*	67.7 M	51.4 M	76%
LEAGUE OF LEGENDS*	84.5 M	26.9 M	32%
HEARTHSTONE*	27.0 M	5.5 M	21%
DOTA 2*	24.3 M	5.2 M	21%
OVERWATCH	19.5 M	2.6 M	13%
STARCRAFT II	4.2 M	2.4 M	58%
HEROES OF THE STORM	6.0 M	1.7 M	28%
STREET FIGHTER V	3.2 M	1.6 M	51%
SUPER SMASH BROS. MELEE	1.7 M	1.3 M	72%
CALL OF DUTY: INFINITE WARFARE	1.6 M	0.8 M	49%
* Games on Eloplay			

Picture 15. Most Watched Games on Twitch

2.7 Eloplay Advertising Module

Eloplay as a platform features tournament pages, streams directory, store etc. These pages will also host sponsored banners so that advertisers could offer their products and services to our audience.

It will require creation of an Advertising Module where advertisers could set their banners. All ads will be paid for with Eloplay Tokens.

Tokens received from advertising will be stored in Eloplay's Bounty Fund.

Eloplay Token Sale

3.1 Token Sale Plan

Eloplay Token Sale will take place on ico.eloplay.com

Start date: 16 October 2017 (12:00 PM London Time, UTC+0)

End date: 15 November 2017 (12:00 PM London Time, UTC+0)

Token Sale minimum target: \$3,000,000

Token Sale maximum cap: \$12,000,000

Currency accepted: ETH

Token exchange rate:

1 ETH = 10,000 ELT

Amount of tokens per one person: unlimited

Maximum transaction amount: unlimited

Minimum transaction amount: 0.1 ETH

A Token gets minted once a certain amount of ETH makes it to the Token Sale smart contract, which means that buyers will receive their tokens immediately upon the purchase. The buyer will also receive additional tokens according to the scheme specified in table 2.

The overall amount of offered tokens is limited to the Token Sale hard cap of \$12,000,000. Once it is reached, the smart contract will automatically cease minting the coins. In case the hard cap is not reached, the smart contract will cease issuing new tokens after November 15th, 2017.

The ETH amount required to raise the preset USD amount is calculated at the kickoff of the Token Sale. This value will be stored in the smart contract. The website will show amounts of ELT tokens sold in real time (in USD equivalent).

There will be five stages in the Token Sale:

- 1st hour funders will receive a 20% Token bonus;
- 1st day funders will receive a 15% Token bonus;
- 1st week funders will receive a 10% Token bonus;
- 2nd week funders will receive a 5% Token bonus;
- After the second week, no bonuses are available.

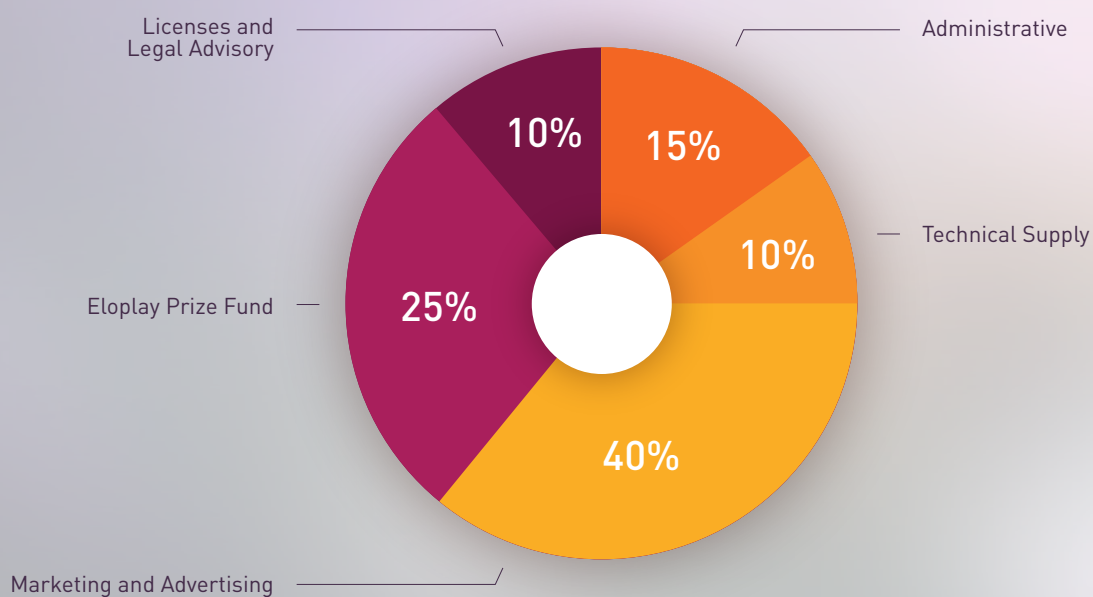
3.2 Distribution of Funds

Raised funds are going to be distributed as follows:

Administrative (offices, salaries, equipment)	15%
Technical support (servers, software etc)	10%
Marketing and advertising	40%
Eloplay prize funds	25%
Licences and legal advisory	10%

Table 4 . Distribution Of Funds

DISTRIBUTION OF FUNDS



Picture 16. Distribution of funds

Conclusion

Implementation of smart contracts on Eloplay is primarily focused on providing players with a completely new opportunity of independent formation of prize pools. Those tournaments will ensure high degree of players' involvement in the project and sports events by making them independent of third parties. Everyone will be able to organize or take part in a tournament to win a great prize.

For those who want to become cyber athletes, fame is just as important as prizes. Eloplay will enable such people to make a name on a global scale by organizing high-quality broadcasting of the events. This would further motivate them to hold smart tournaments. As the prize pools get bigger, the audience size will follow in their wake. This will ensure mutually beneficial development of the entire ecosystem.

The esports market analysis suggests that it is brands that play the most prominent role in generating revenues at the market. They invest in advertising and holding tournaments, so Eloplay grants them an opportunity to hold automatic independent tournaments while placing ads at the platform.

High-quality streams featuring professional analysis, as well as offline tournaments at stadiums can help many players get closer to sports.

Entering the global market, embracing new games and platforms, and appealing to new players via advertising would ensure explosive growth of Eloplay's user base.

Eloplay's primary goal is to ensure effective interaction between players and brands within the ecosystem. The team's basic principle is to directly interact with the users, so we will always be able to use the feedback in implementing new mechanisms that our community requires.

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