



# Fueling the Gaming Industry

PlayFuel provides a platform for gamers and developers to earn through playing, developing and selling in-game items.



# WHITEPAPER VERSION 1.0

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# 1. Introduction

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PlayFuel brings the power of blockchain technology to the gaming world. We are doing this by creating a platform that allows developers to earn funding by integrating PlayFuel into their games and allowing players to mine PLF — crypto-tokens just by playing. Players can use these tokens to buy games, redeem exclusive goodies or even exchange the tokens into real money.

Developers can gain funding through gamers who purchase PLF and invest in the development of their games. Investors get access to beta testing, exclusive in-game items, and will be one of the first users to be given access to the actual game.

Players acquire premium and exclusive perks using PlayFuel tokens. Items, upgrades, and other in-game purchases can be bought without hassle.

Once the game is ready, players can indulge their experience more by earning PLF tokens as they level up in the game. The longer you play, the greater incentives you can get.

PlayFuel is a gaming and development platform that lets players buy games and in-game items with PLF Tokens.

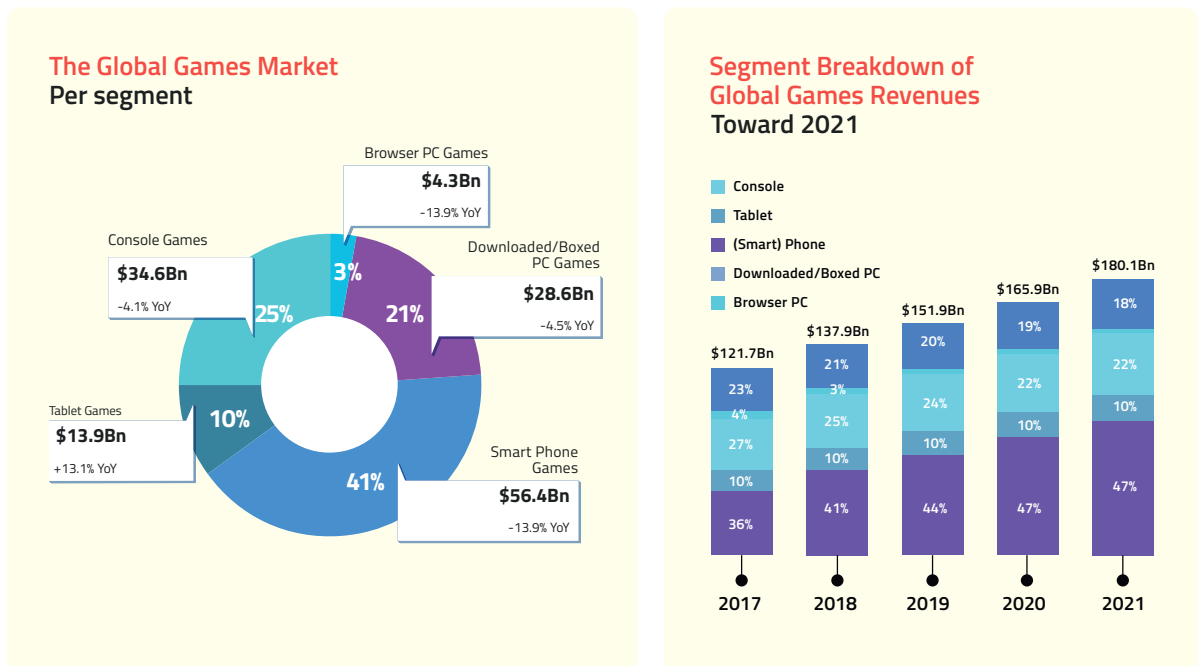
PLF is a utility token based on the ERC-20 standard, enabling PlayFuel to fully leverage the Ethereum ecosystem and easily integrate with the existing infrastructure. PLF will be available to use on PlayFuel platform from day 1 when the tokens are forged.

The maximum supply of PLF Tokens (“PLF Total Supply”) will be issued in a single genesis block and limited at 10,000,000,000 PLF.

## 2. The Market

### 2.1 Overview

According to research published by The Global Games Market, the games market took more than 35 years to grow to a \$35 billion business in 2007. In the current year, that market is expected to make \$137.9 billion in revenues. With just 11 years, an astounding \$100 billion of additional values was created.

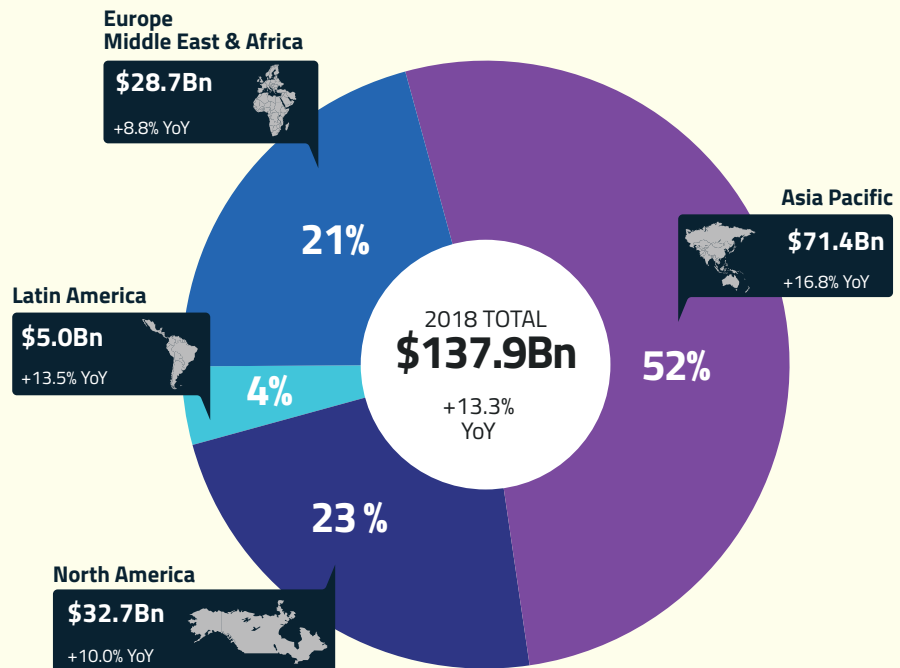


Source: Newzoo Global Games Market Report

Mobile gaming is the largest segment in 2018, claiming more than half of all global game revenues for the first time. Combined, smartphone and tablet gaming generate \$70.3 billion, accounting for 51% of the total global market. The segment also has the most players with 2.2 billion, the majority of whom are gaming on smartphones.

The gaming industry is in a healthy state as both console and PC games are also growing. Console is the second-largest segment with revenues of \$34.6 billion in 2018. This will grow to \$39.0 billion in 2021 with a CAGR (2017-2021) of +4.1%. The overall PC segment will generate \$32.9 billion in 2018 and is the third-largest segment. Growth in downloaded/boxed PC games is offset by declining browser PC revenues, as browser gamers have largely transitioned to mobile. Browser PC revenues will continue to decline with a CAGR (2017-2021) of -16.1% to \$2.5 billion in 2021.

## The Global Games Market Per Region



The Asia-Pacific region will generate \$71.4 billion this year, or 52% of total global game revenues. This represents a +16.8% year-on-year increase. The share of total revenues claimed by the Asia-Pacific region has increased slightly over the past years due to continued growth in smartphone gaming, for which the region has, by far, the largest player base.

North America remains the second-largest region, taking 23% of the global games market. Total revenues in North America will increase year on year by +10.0% to reach \$32.7 billion. Growth in EMEA's diverse markets is lagging slightly behind North America, as the uptake of mobile gaming has been slower.

As a result, EMEA (Europe, the Middle East and Africa) region represents 21% of the market, equal to \$28.7 billion. Latin America will grow to \$5.0 billion in game revenues this year, taking 4% of the market.

Growth in the coming years will cement AsiaPacific as the largest region by game revenues, as the fastest-growing markets in the coming three years will be India and various countries in Southeast Asia.

The largest single market will continue to be China, which will reach \$50.7 billion in 2021.

## Top 20 Countries/Markets by Game Revenues in 2018

RANK	COUNTRY/MARKET	POPULATION	ONLINE POPULATION	TOTAL REVENUES
1	China	1,425M	850M	\$37,945M
2	United states	327M	265M	\$30,411M
3	Japan	127M	121M	\$19,231M
4	South Korea	51M	48M	\$5,647M
5	Germany	82M	76M	\$4,687M
6	United Kingdom	67M	64M	\$4,453M
7	France	65M	58M	\$3,131M
8	Canada	37M	34M	\$2,303M
9	Spain	46M	39M	\$2,032M
10	Italy	59M	40M	\$2,017M
11	Russia	144M	113M	\$1,668M
12	Mexico	131M	86M	\$1,606M
13	Brazil	211M	142M	\$1,484M
14	Australia	25M	23M	\$1,269M
15	Taiwan, China	24M	20M	\$1,268M
16	India	1,354M	481M	\$1,169M
17	Indonesia	267M	82M	\$1,130M
18	Turkey	82M	53M	\$878M
19	Saudi Arabia	34M	26M	\$761M
20	Thailand	69M	38M	\$692M

**Source:** Newzoo Global Games Market Report

*As shown on the data above, the online gaming industry has risen significantly. The PlayFuel Team sees this as an opportunity to target the growing global gaming market. PlayFuel has the goal of connecting blockchain with the gaming industry.*

## 2.2 Market Opportunities

Due to the extensive research done by the PlayFuel team, we discovered the market opportunities that follow. PlayFuel will solve the following issues in the gaming community:

PLAYERS	DEVELOPERS	INFLUENCERS	MERCHANTS
Lack of earning opportunities as a gamer	Initial budget acquisition	Decreasing revenues from traditional platforms like YouTube	Audience targeting
Intrusive advertising	User retention	Increasingly hard to keep follower base engaged	Marketing costs are too high
Rewards can't be used across different games	Low advertising and in-app purchase revenue	Decreasing effectiveness of traditional social media	Undeveloped ecosystem for advertising
Cost of digital goods	No innovative revenue channels	Need for more revenue channels	Lack of in-game advertising opportunities

## 3. Market Needs

### 3.1 For Players

One of PlayFuel's core missions is to provide players with an unparalleled user experience where they can play their favorite games while seamlessly "mining" PLF Tokens. In addition, PlayFuel engages players in entirely new ways, such as by rewarding players with item drops that can be sold for PLF Tokens in the in-game item market. Then can also exchange the PLF Tokens for real money at the exchanges where PLF Tokens will be listed.

PLAYER NEEDS	PLAYFUEL SOLUTIONS
Lack of earning opportunities as a gamer	Many earning opportunities such as mining through playing, selling in-game items, and streaming
Intrusive advertising	Advertising will be limited, players can spend PLF Tokens to block advertisements, or earn PLF by watching advertisements
Rewards can't be used across different games	With PLF Tokens as rewards, this type of reward can be used everywhere in PlayFuel
Cost of digital goods	With PLF Tokens, buyers in the early stage can purchase exclusive in-game items

### 3.2 For Developers

Developers can enjoy plenty of benefits by using PlayFuel. They can easily get funding to work on developing their projects through investors in the Initial Game Offering. They will be working with investors through beta testing and providing perks and rare sellable items to investors.

DEVELOPER NEEDS	PLAYFUEL SOLUTIONS
Initial budget acquisition	Will provide Initial Game Offering option for crowdfunding the development costs
User retention	Enables players to profit making gaming a potential source of income
Low advertising and in-app purchase revenue	Partnerships with merchants and in-app item marketplace opportunities will be developed
No innovative revenue channels	Scalable revenue channels

### 3.3 For Influencers

PlayFuel allows Influencers to monetize their followers through a referral system which generates an ongoing revenue stream for every lead, regardless of whether the lead remains an Influencer's follower in the long-term.

INFLUENCER NEEDS	PLAYFUEL SOLUTIONS
Decreasing revenues from traditional platforms like YouTube	Unlimited potential regarding revenue streams
Increasingly hard to keep follower base engaged	Rewards encourages and enables participants to engage more
Decreasing effectiveness of traditional social media	Innovative medium for gamer influencers
Need for more revenue channels	Many ways to earn PLF tokens



### 3.4 For Merchants

PlayFuel provides an easy and cost effective way for merchants to promote their products online through the In-Game Market and Game Marketplace.

MERCHANT NEEDS	PLAYFUEL SOLUTIONS
Audience targeting	Merchants who want to advertise will be able to target gamers easily, also ads will be relevant to gamers
Marketing costs are too high	There will be more efficient marketing channels
Undeveloped ecosystem for advertising	Advertising ecosystem will be developed
Lack of in-game advertising opportunities	In-game advertising opportunities when partnering with developers

## 4. Key Features

### 4.1 Game Marketplace



PlayFuel offers a faster, scalable, and secure platform that will allow game developers to design, create, and sell games of their preference. Developers have the freedom to conceptualize the technicalities and gameplay according to the demands of the gaming industry.

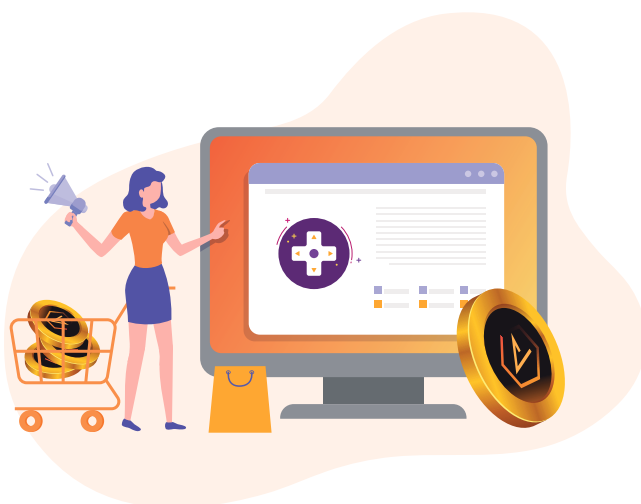
Through the PlayFuel platform, developers can collect development funds through the PLF token pre sale. After presenting the concepts and building a prototype version of the game, developers can market it with the investors, professional gamers, influencers, and merchants who are part of the PlayFuel ecosystem. Those who are interested

in the game development can buy the PLF tokens which would serve as the capital fund for the game of their choice. The fund capital acquired by game developers during this stage will be used to fully develop the game, which is needed for the release of the full-version of the game before it hits the public market.

The people who have invested during the pre sale have advantages once the developers has released the full version of the games. They can have exclusive access to in-game purchases for a certain period of time, compared to other buyers who have bought the game during its Initial Game Offering (IGO). All special in-game purchases could be paid using PlayFuel tokens.

Upon successful completion of the game development, the PlayFuel platform will open the IGO stage to the public. This is when everyone can purchase the game and enjoy exclusive in-game items with PlayFuel tokens.

## 4.2 In-Game Item Market



Game developers will work alongside PLF to introduce assets which are only available for purchase using its in-game crypto tokens. This safeguards the way in-game transactions are made and creates digital items players can actually own. Through the Ethereum blockchain, PLF token give players and developers a new platform through which they can distribute, trade and buy virtual items.

Games may differ on how the player uses an item which proves the necessity of having a platform that could benefit the gamers by acquisition of in-game items. Through PLF, users can take advantage of getting previews of upcoming in-game items, access to the hottest and most exclusive gears, and other latest in-game purchases available in all the games developed within the PLF ecosystem. Game developers would include unlockable and rare in-game items such as virtual goods, skins or upgrades which could be traded and sold only using PLF tokens.

Players can buy and sell items with no risk of fraud. The PlayFuel platform is equipped with advanced fraud protection and blockchain security which ensures all item transactions are valid. Trading of in-game items from different games developed within the PLF platform can also be done. Players who want to convert their customized virtual goods to PLF tokens can do so by selling those items for public takers. In-game items are available through different game servers and games within the PlayFuel platform.

The people who have purchased a game developed within the PlayFuel ecosystem can earn PlayFuel tokens while playing games. This allows players to easily buy in-game items for a more exciting and awesome gaming experience.



### 4.3 Referral System

By definition, affiliate marketing is the process of earning a commission by promoting products of other people or companies. When you find a product you like, you will promote it to others and earn a piece of the profit for each sale that you make.

PlayFuel have taken into consideration that the gaming industry has grown through the years by word-of-mouth promotion and referral reward programs. According to Get Social, customers that come via referrals have higher chances of being retained, amounting to almost 37%. Furthermore, experts also said that brands can expect a minimum of 16% higher profits through referred users.

PlayFuel applies the concept of affiliate marketing through its referral system. Existing players within the PLF platform can refer the game they are playing to their friends and colleagues to get a referral bonus of up to 100 PLF tokens. Once the referred user has been actively playing for 30 days, the existing player can also get access to a locked in-game feature.

When users reach a certain number of referrals, they can start sharing and receiving PLF tokens from their invites. PlayFuel might also conduct referral contests to win special prizes and perks by simply sharing the game and asking their acquaintances to join and play. The winner will be based on the person who successfully generates the highest number of referrals.

## 4.4 Business Opportunities

### Gaming Ecosystem

The mission of PlayFuel is to develop a gaming ecosystem utilizing PLF token and its blockchain. It will propagate the use, awareness and understanding of the benefits of tokenized game development and gameplay and build a thriving community of gamers, investors, developers, and enthusiasts.

### In-game Purchases

With PLF, developers and game designers can tokenize in-game purchases. Developers will allow players to buy and own various items and use it in any games created within the PlayFuel platform. While PLF is unlikely to change gameplay itself, it will hugely impact the actual in-game experience by providing a more convenient way for users to acquire in-game purchases, earn additional profit, and build a network with gamers and investors within the community.

### Mining and Marketplace

PlayFuel allows gamers to mine PLF tokens as they play. The longer the game duration and the higher the level of difficulty within the chosen game, the faster the mining process would be. As

long as the players are actively using the game on a regular basis, they are eligible to mine PLF tokens. PlayFuel's marketplace is available to everyone in the community. Aside from the in-game purchases, customized items and item drops can also be sold to the public. IGO investors get access to premium and rare items, as well as complimentary elite investor sets which they can use or sell to a much higher price within the market.

## IGO Investment

The game price during the IGO will be lower compared to the price during the full-version release. The discounted offer during ICO is one of the benefits of investing PLF tokens beforehand. Developers can get their payments in a maximum of 24 hours, which is faster than any other platform in the market at present. There can neither be fraud payments using the payment gateway nor chargebacks. Aside from the IGO fund, premium subscriptions also generate profit for developers. They can issue games free of cost with a minimum revenue share of 5% against 30% in comparison to PlayFuel's competitors. Furthermore, influencers can also profit on the PlayFuel platform by being a player and accepting donations through Steam.

# 5. Mainnet

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## 5.1 Token

PLF tokens will be integral to all of the processes within the PlayFuel ecosystem. PLF token is based on the ERC-20 token standard, and is a utility token which serves a plethora of functions and purposes within the ecosystem. These functions and purposes are mentioned within the whitepaper. Eventually, PlayFuel will develop a mainnet.

## 5.2 Transaction Model

PlayFuel is a crypto gaming platform initially built on the Ethereum network, but it will migrate to its own mainnet eventually. The mainnet gives PlayFuel the freedom to break free from the limitations set by the Ethereum platform. It also provides independence for the platform to set its own rules and restrictions.

All PLF tokens awarded to players are deposited to their internal wallet on PlayFuel. These tokens are readily available for serving various purposes within the PlayFuel marketplace such as the purchase of in-game items and gears, customized sets, and many more. Players are capable of transferring PLF tokens from his in-game wallet to his personal crypto wallet so long as it is ERC-20 compatible, and vice versa.

We will assist game developers by providing open-source plugins, application programming interfaces (APIs), and software development kits (SDKs) to allow players to buy digital items via PLF tokens.

## 5.3 Proof-of-Play Protocol

PlayFuel implements the Proof-of-Play protocol. This is a concept similar to Proof-of-Work, but instead of awarding users new tokens based on computing power, this protocol will award based

on how much “play” the user has performed. The number of PLF tokens awarded to the player depends on a variety of factors. Once these have been met, the player will mine a “Fuel-Block”.

### 5.3.1 Fuel-Block

As mentioned above, Fuel-Blocks are a certain set of conditions that, if successfully met, generate a block reward. These blocks vary by level, and there are three types of conditions in a Fuel-Block, namely Time Conditions, Difficulty Conditions. And Offer Wall Conditions. Each will be discussed below.

### 5.3.2 Time Conditions

Time Conditions is, as the name suggests, what refers to the amount of time required for the player to play the game before achieving the Proof of Play. This is expressed in seconds.

### 5.3.3 Difficulty Conditions

Some games are more difficult to play than others, and some quests are trickier than the others. That is why PlayFuel has created Difficulty Conditions, which refers to the in-game accomplishments of players in contrast to the game level or quest difficulty. PlayFuel will collaborate with the game developers in designating the game or quest level difficulty to make sure that this will not be manipulated or exploited by the players.

### 5.3.4 Offer Wall Conditions

Offer Wall Conditions refers to the completion of actions and the acceptance of offers posted on PlayFuel’s Offer Wall. Sample actions include the downloading of a PlayFuel app, referring users to the ecosystem, purchasing of certain games, to mention a few.

### 5.3.5 Proof-of-Play Definition

The Fuel-Block definition will be:

$$FB_i = \{1 \text{ if } A_{iw} = 1, w \in \{T, O\}, 0 \text{ otherwise}\} \text{ with } i \in \mathbb{N}$$

Where  $FB_i$  assumes the value 1 if all actions, of all the conditions met in it, have been satisfied, 0 if otherwise. We can therefore define Proof of Play as:

$$P(FB_i) = \{y \text{ if } FB_i = 1, 0 \text{ otherwise}\} \text{ with } i \in \mathbb{N}, y \in \mathbb{R}^+$$

Where  $P$  corresponds to the PLF block reward tantamount to the value  $y$  of  $P$ , if the Proof of Play of level  $i$  is satisfied.

### 5.3.6 Proof-of-Play Flow

If all of the conditions stipulated above are met by the player, PlayFuel will reward him/her with PLF tokens on his in-game wallet, which can be available to use on the in-game marketplace and more.

# 6. Platform Launch

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## 6.1 Road Map

### 2019

#### **Q2 - Forming the company**

PlayFuel launches the website and whitepaper to introduce its platform to the online gaming and blockchain community.

#### **Q3 - Blockchain development**

PlayFuel team creates PLF Tokens through the Ethereum platform. There will be a total of 10 billion PLF tokens, with 3 billion pre-mined.

#### **Q4 - PLF Token Exchange Listing**

PlayFuel will list its native currency in various leading digital asset exchanges. PLF will be made available for trading around the world.

### 2020

#### **Q1 - Partner with game developers**

Interested game developers can send their game proposals to PlayFuel. The proposal must include a clear concept of the game and PLF token integration.

#### **Q2 - Sneak peek of games**

Developers provide a preview of the games that they are developing to the PlayFuel community. Be excited about what's more to come on your favorite game.

#### **Q3 - Beta testing with investors**

The PlayFuel team and PLF investors will beta test the blockchain-based games created by the affiliated developers to check for possible bugs and errors.

#### **Q4 - First game launch**

PlayFuel officially launches the first wave of games on its platform. This will be open to the public with game availability depending on certain conditions.

## 7. Crowdfunding Structure

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PlayFuel has designed its ecosystem in a way that there will be a maximum of 10 billion PLF tokens in existence. There will be 3 billion pre-mined PLF tokens which will be made available for purchase during the token presale. The remaining 7 billion PLF tokens can be acquired by members of the PlayFuel community via a Proof-of-Play mechanism.

### 7.1 Terms and Conditions

Persons who would like to gain access to PLF tokens can do so through 3 possible ways, with each explained below.

#### Token Presale

PlayFuel will hold a token presale event, wherein it will be selling the first 3 billion tokens to the public. These will be used for investors to fund upcoming games on the PlayFuel platform.

It is very important for readers and interested investors to join the presale because there will not be any more way to own PLF tokens prior to the launch of the first games on the PlayFuel platform except by purchasing the said tokens from users who bought the tokens during this time.

PLF tokens can be purchased via wire transfer or through major cryptocurrencies like Bitcoin and Ethereum. Once the 3 billion tokens have been purchased, the token presale will be closed, and additional tokens will not be created for purchase.

#### Initial Game Offering (IGO)

Developers whose game proposals have been approved by the PlayFuel team will be allowed to conduct their own Initial Game Offering (IGO), wherein they will open their gaming projects for the public to fund. These can be purchased through PLF tokens, which are native to the PlayFuel platform.

Members of the PlayFuel community can choose whichever game they would like to fund through IGO.

Participating in IGOs will prove beneficial to the users because some games will not be available for everyone, and only those who have participated in that game's IGO will have access to the game. In this case, PLF tokens will function as a way to "purchase" a license to play the game.

## Game Launch

Once the first wave of games have been launched on the PlayFuel platform, PLF tokens can utilize their tokens to serve different purposes, including access to pay-to-play games, in-game items, trophies, features, weapons and armor, to name a few.

Furthermore, users who will play the games on the PlayFuel tokens will have the opportunity to receive newly-minted PLF tokens through the Proof-of-Play mechanism. The amount of tokens earned and the difficulty will depend on several factors including game system requirements, amount of time played, game difficulty, and more.

## 7.2 Use of Funds

Developers who hold successful IGOs will use utilize the PLF tokens to fund the development of their games, as well as the operation expenses. They may not use the funds in any other way aside from the functions stipulated within the PlayFuel whitepaper.

PlayFuel expects any PLF token holder to observe the same. PLF tokens are utility tokens native to the PlayFuel ecosystem, and while these will be made available to trade with cryptocurrencies and fiat money, we do not support nor associate ourselves with persons who will utilize our PLF tokens, especially those tokens collected as funds in the IGOs, to be used for illicit activities commonly associated with traditional initial coin offerings (ICOs).

# 8. Legal Disclaimer

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## General Information

1. PlayFuel is a platform that uses blockchain technology to deliver its services in line with its vision and purpose. The reader must understand that blockchain technology is an open-source protocol and is not an exclusive property of any single person or organization. The company also uses smart contracts based on the Ethereum protocol.
2. PlayFuel focuses on providing a new marketplace and ecosystem for the gaming industry, and there is a possibility that some of its features may be identical with others. This is purely because other ecosystems are also empowered — and limited — by innovations like blockchain technology, artificial intelligence (AI), virtual reality (VR), and other complementary technologies.
3. This whitepaper is used to introduce PlayFuel to the community and to highlight all of its special features. It only serves the purpose of providing comprehensive information to the reader regarding PlayFuel and nothing more.
4. Every piece of information provided in this whitepaper should be taken by the reader as is, and it is not encouraged for the reader to interpret the information in any way other.



## Risks

1. Blockchain and other similar technologies being used by PlayFuel, as cited and described in the whitepaper, are not perfect, and readers are expected to understand that there will be limitations and risks associated with PlayFuel's ecosystem. Readers are expected to agree that should any untoward event occur in the duration of the reader's engagement with the platform, PlayFuel will not be immediately and conveniently blamed; as security measures are being improved, so are security threats.

2. Possessing PlayFuel tokens (PLF tokens) and storing them involves potential risks, including, but not limited to the risk that the company may not be able to launch its platform as initially scheduled, the company may not be able to develop its blockchain system as initially scheduled due to many factors including legal, technical, technological, or financial. Therefore, interested PLF purchasers are expected to buy the said tokens at their own risk.

## Due Diligence

1. Readers are expected to practice Due Diligence in reading this whitepaper and in conducting any business with PlayFuel, both its platform and its community.

## Purchase

### PLF Tokens

1. PlayFuel will have its native PLF token as a means to allow users access to various features and functionality within its platform, as described in the earlier parts of this whitepaper. Other cryptocurrencies will not have any other function except to be traded for PLF tokens and vice versa.

2. PlayFuel will conduct its initial PLF token sale on the date said in official announcements on its communication platforms — be it PlayFuel's very own website, or its social media channels and email messages.

3. All of the details provided in the official announcements shall be considered true by the readers, and they are discouraged from holding contrary information in the same esteem as PlayFuel's official announcements. Users are also discouraged from disseminating any piece of information which are not consistent with PlayFuel's official announcements.

## No Investment

1. PlayFuel does not and will not endorse its PLF tokens to the public as investment assets. PLF tokens function as a utility token which will allow token purchasers to have access to various features and functionalities within the PlayFuel ecosystem.

2. PlayFuel token (PLF) sale is final, and tokens are not refundable. These may however be converted into cryptocurrencies in the near future. But as of the time of writing this whitepaper, this function is not available yet.