

Kinguin.io

A decentralized marketplace for digital
games, items and services

Whitepaper version 2.1.1

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Abstract

Kinguin is a marketplace for digital games, items and related services, that has generated \$100m in turnover for 2016.

In an effort to go beyond other marketplaces, and advancing the industry at large through innovation, Kinguin is reformatting its platform to a completely decentralized model built entirely on Blockchain technology and powered by Smart Contracts. A more efficient, autonomous, and transparent marketplace with built-in fraud prevention to the benefit of all Gamers.

Background

The gaming industry is growing exponentially with the increasing awareness and adoption for eSports, and in-game assets. Kinguin has been the go-to platform for players to trade their in-game assets at their discretion. We are believers in free-trade and Blockchain technology can supercharge this belief to make it a reality.

In 2017 the market is expected to surpass a billion dollars in annual revenue. The ability to trade digital games, own in-game assets, and micro-transactions, is a key contributor to the meteoric growth curve currently observed in the gaming industry itself. Online payments are considered normal in these transactions, and it has led to players having a native aptitude for digital transactions and recognizing value. We believe because of this, our transition to Blockchain Technology is not only welcomed but necessary as it provides players with more access and control to game related transactions through smart contracts and reward mechanisms.

We believe that the global gaming community is underserved by current technology and trade options; which in turn negatively impacts value creation for hundreds, thousands and millions of players. New distributed ledger technology (colloq. 'Blockchain') offers an opportunity to truly transform ownership and limitations for game-related digital assets, by enabling both an immutable store of ownership, and a trustless¹ peer-to-peer network on a truly global scale.

It is time to change the game.

¹ 'Trustless' in a cryptocurrency context, means that you don't need to trust a third party, like a bank or a government to verify a transaction or value. The system is inherently 'self-verifying' through cryptographic proofs.

Background

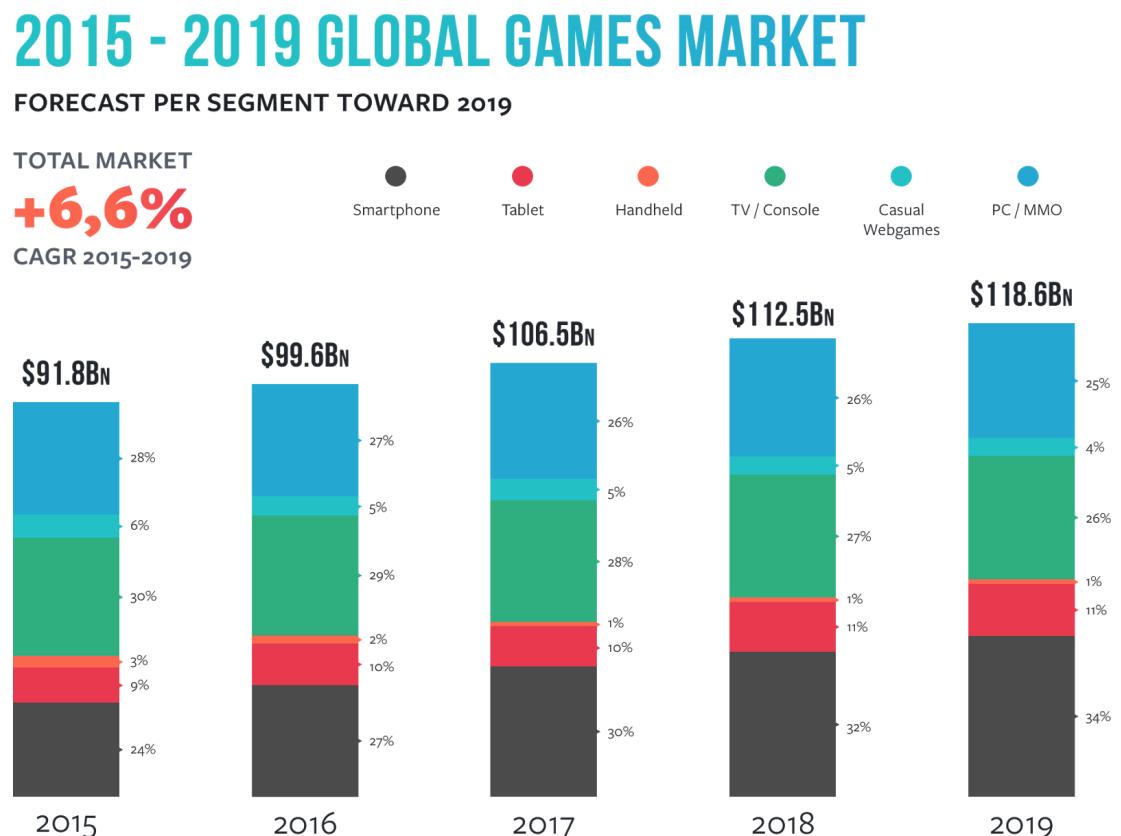
Before internet connections became widespread, physical media such as floppy disks were the dominant solution to delivering video games.

One of the earliest examples of digital distribution in video games, was GameLine in the early 1980s. A dial-up based distribution service for the Atari 2600, where users could download and store new games through a proprietary modem and cartridge bundled together as a single unit. The service was discontinued in 1983, but the founders went on to create similar services for Commodore 64 / 128 users, which in turn evolved into what became known as America Online (AOL).

Through the 1990s, only a few attempts were made at digital distribution of video games. Among the most notable were Sega's Meganet, and subsequently, Sega Channel services, providing digital access to games for Sega Genesis users.

Prior to the widespread adoption of the internet, in the early 1990s, it became common for software developers and users to upload demos and shareware to Bulletin Board Systems (BBS), where users would connect to a terminal server through a dial-up connection. The BBS would provide messaging services, downloads of software and text-based magazines, and of course also the first networked multi-player experience for most people - the Multi-User Dungeons & Dragons games, or MUDs as they were colloquially called.

Gaming has since come a long way, mainly due to the ubiquity of high-speed internet, which has led to the global games market growing to a massive \$106bn



<https://www.linkedin.com/pulse/global-games-market-reaches-996-billion-2016-mobile-37-wybe-schutte/>

Our Market View

A common theme in most gaming and blockchain-related projects announced to date, is the underlying assumption that publishers will voluntarily share revenue from their games with others. Or that publishers have intent to cooperate with third-parties to invest, develop and grow the total market. It is, unfortunately, hard to find supporting evidence of this assumption. Our concern with projects based on API-hooks to publishers is philosophical: any market relying on centralized access to supply, can be forced to operate on that supplier's terms. This has throughout history resulted in trade with low inventories, sold at maximum inflated prices. In markets with a high barrier of entry (like the cost of making and distributing a game), a few companies can together control "best practices" for, pricing and monetization in the market, companies without actual competition usually "forget" to double down on fair practice and customer service.

The Kinguin founders pioneered the market for secondary cd-keys, leading to us serving a global community across across regions and borders. We have since our inception saved our community more than \$150 million dollars. We strongly believe that the only way to support a continuous growth of the gaming community and trade, is by decentralizing the economic models that governs the industry. Free trade with digital products is the single most effective mechanism for ensuring that unfair exploitation of players does not take place.

We're introducing the future marketplace for gamers, a simple revolutionary ecosystem for player-to-player trading - redefining where, how and what digital goods are monetized. This decentralized economy is designed specifically for the global gaming community. Kinguin will accelerate this economy by transitioning our existing platform and infusing millions of customers who collectively trade \$100m annually.

Our Mission

We believe that everyone should have access to great gaming experiences.

Kinguin's mission is to make great gaming experiences available to everyone, by building platforms, services and locations that support the free economy and personal rights of players.

"All your loot are belong to you²", and as a gamer, all your digital assets, purchased or won, through luck or skill, are the personal digital property of you.

Forced regional pricing on digital games and items is player-hostile, like all other archaic implementations of Digital Rights Management (DRM) seen in gaming.

Players have become both gameplay and content in online games, but share little to no upside from their own value creation. We believe there should be no limitations for how players monetize their expertise, skills, playtime, loot or digital gear.

Decentralized trading in cryptocurrency served with trustless-security and smart contracts, will significantly scale global player-to-player trade and create a new revenue stream for thousands. Many from low-income regions where the concept of selling time on a marketplace is a common and popular freelance business. A new crypto market will emerge seemingly overnight, as it becomes known that hourly rates for skilled gamers and hardware experts outperform services commonly sold on marketplaces like Upwork (14 million users, \$1 billion+ dollars in revenue³). Blockchain technology provides a perfect foundation for our quest for fair market conditions and for players' rights to ownership, monetization and control.

Based on our beliefs, we are determined to establish the necessary conditions to evolve our current marketplace for Gamers - by pioneering the next big game change;

Kinguin.io: A decentralized marketplace for digital games, items and services, enabling global player-to-player trade empowered by blockchain and smart contracts.

Krowns: A cryptocurrency for a new generation of online gamers looking to monetize gaming, enabling a global gaming community to profit from the buildup and adoption of a decentralized economy.

² Reference to a cutscene in 1989 arcade game 'Zero Wing' -
https://en.wikipedia.org/wiki/All_your_base_are_belong_to_us

³ <https://en.wikipedia.org/wiki/Upwork>

Kinguin.io overview

Established Kinguin brand

A community of 6,5 million gamers have saved more than of \$150 million dollars on Kinguin.

Conversational tech

We began work on bots more than a year ago and have since served thousands of customers through chatbots - recording a groundbreaking 96% customer support satisfaction rate.

Simple trading

Sell and buy anything, anytime, anywhere. Trade and do real-time bidding straight from Discord, Messenger and other social platforms.

Secure and reliable

The blockchain, smart contracts and community reviews will together eliminate trust issues in the value chain, increasing the number of both buyers and sellers.

Smart publishing

Indie Developers can publish their games to the community using smart contracts, and monetize their audience with respect and in compliance with EU Directives.

Community Support

Kinguin.io will be the easiest and most rewarding way to support content creators, teams, individual players and anybody else who is providing value to the community.

Krowns Overview

Ethereum sub-token

Krowns is initially an ERC20 sub-token utilizing the established Ethereum blockchain and smart contract infrastructure, to act as a medium of storage and exchange on the Kinguin.io platform. The next stage of Krowns will be a Token developed from the ground up with its own specialized Blockchain and smart contract infrastructure.

Smart Contracts

When a buyer and a seller agree on a transaction, a smart contract is executed between the two. Unlike other contracts, a smart contract cannot be stopped, reversed, or overwritten. This contract will be recorded forever in the blockchain.

Kinguin.io Ecosystem

Use Cases

Buy/sell Game assets

The Kinguin.io platform provides a low friction, safe and reliable way to handle your digital assets. A gamer is able to initiate a trade through their favorite chat interface, their wallet or through the Kinguin.net website.

Case - 'Want To Buy':

Gamer has Krowns in their wallet and wants a specific game item. The Gamer uses Discord chat to communicate to the Kinguin.io chatbot, that they want to buy that specific item. Through natural language conversation, the neural network behind the chatbot determines the Gamer's preferences for speed, price and quality of seller, and returns an estimated time for a successful transaction, if not instant.

Case - 'Want To Sell':

Gamer has a specific game item they want to exchange for Krowns. The Gamer prefers to use the Kinguin Wallet UI to initiate a trade, and does so while indicating their preferences for speed, price and quality of buyer. As soon as the trading engine finds a match, both parties are alerted, and the transaction is performed, with an immutable record stored on the Blockchain.



Buy/sell Game services

To help empower the Gamers, we are committed to let them take part in the economic growth in the Gaming industry. If a Gamer can provide value to another Gamer through services, they are able to monetize that through the Kinguin.io platform.

Case - 'Coaching':

A Gamer is having trouble reaching the rank they aspire to in a specific game. Through the Kinguin.io platform, they can search for, and identify Gamers who are willing and able to coach them towards their goals.

Case - 'Tech Expertise':

A Gamer is not content with the current FPS⁴ they are achieving in a specific game. Through the Kinguin.io platform, they can search for, and identify Gamers who are willing and able to tweak their system settings, install correct drivers and suggest hardware replacements to achieve the desired FPS.



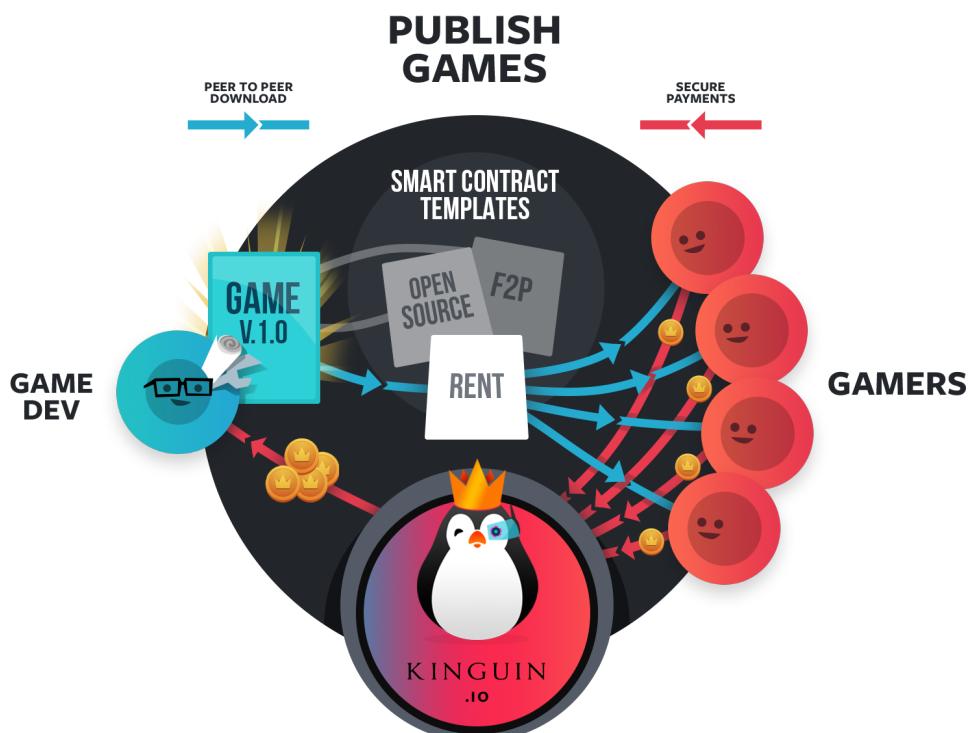
Publish games

Game developers will have access to a publishing platform based on smart contracts and secure payments with Krowns.

Smart contract templates

Kinguin.io will provide easy-to-use publishing templates based on smart contracts, that enables the Developer to freely choose between a large variety of payment models:

- FOSS
- F2P
- Time Based Rent
- Pay-what-you-want
- One time fee
- *More will be added based on Developer feedback*



⁴ 'Frames Per Second'. A high FPS results in smoother, and more precise gameplay, and is vital for competitive gaming.

Crypto payment system

As part of the publishing platform, Developers get access to a cryptographically secured payment system based on the Ethereum blockchain. This ensures the Developer is sure to get paid, due to the trustless architecture of blockchains in general, and specifically due to the design of the Kinguin.io smart contracts verifying and enabling payments.

Trustless Distribution

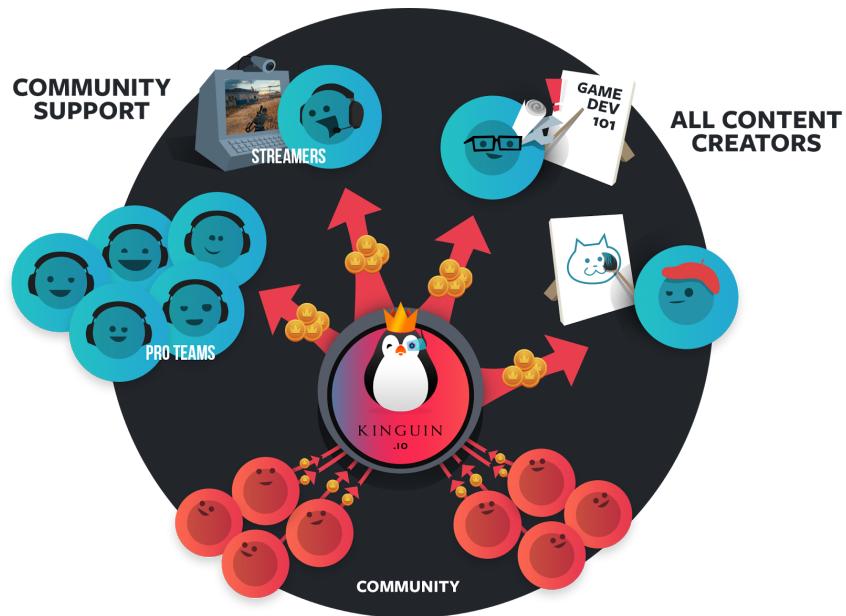
The digital distribution of the game, can be done through our peer-to-peer download client, which secures the Gamer against malware and corrupted software, by ensuring file hashes matches the original master copy of the game.

Community Support

Every content-creator within the realm of Games, will be able to receive Krowns from the audience, through easy 1-click interfaces on streaming platforms like Twitch.tv, and through the Kinguin.io wallet. Whether you are a streamer, a pro gamer or pro-team, the Kinguin.io platform makes it simple and cost-efficient to support your favorite people in the world of Games.

Our token-based rewards program will launch already in January 2018 as *alphaKrown* Rewards. This is pilot program, to mainly gain business feedback, and secondarily technical feedback before moving on to the next iteration.

Going through one more iteration with *betaKrowns*, also to gain knowledge and test assumptions, we will finally then launch *goldKrowns* as the final iteration of the specialized community support token and platform.



Users will always be able to send standard Krowns to Creators they want to support, but goldKrowns are special sub-tokens, that can only be gifted away to Creators in the community. When a creator receives goldKrowns, they are automatically exchanged for standard Krowns in a 1:1 ratio.

The community support program is where we expect to experience the highest amount of network effect, exponentially reaching more Gamers every day. Many influencers' first acquaintance with Krowns, will be in a positive setting, where a fan is trying to give them money.

Technology

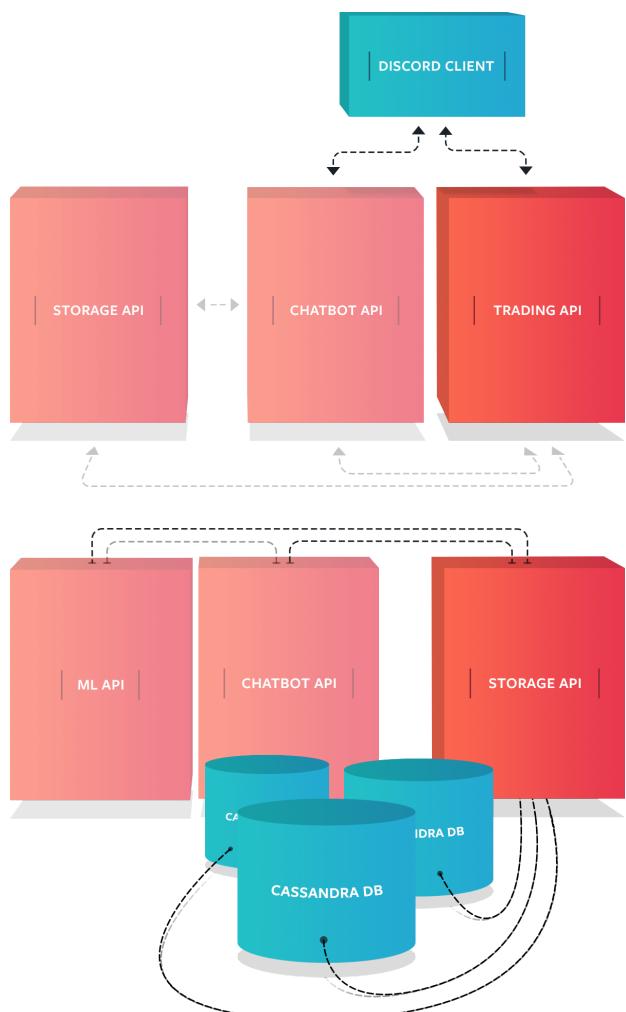
Kinguin.io

Microservices

The new trading platform will be built using a microservice architecture. This is an architectural style that structures an application as a collection of loosely coupled services, which implement independent business capabilities. The microservice architecture enables the continuous delivery/deployment of large and complex applications.

API

Kinguin will open its new trading platform to the outside world through APIs (Application Programming Interfaces). These APIs will provide programmatic access to read user inventories, create new trades, access user profiles, provide 'oracles' for smart contracts, and in general interact with all entities.



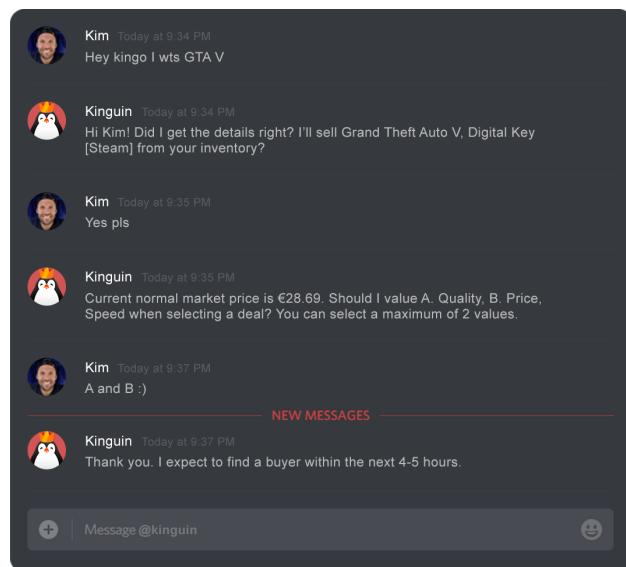
Database

Kinguin.io will utilize Cassandra⁵, a highly scalable, high-performance and distributed database, designed to handle large amounts of data across many commodity servers, providing high availability with no single point of failure. Cassandra is in use on high-end services like Netflix, Facebook and Booking.com, as thus guarantees its always-on architecture and reliability that millions of customers across the globe already trust.

⁵ <http://cassandra.apache.org/>

Chatbots

By leveraging Kinguin in-house experience with chatbots and machine learning, the Kinguin.io interface also exists in the user's preferred messaging client. By adding the Kinguin.io chatbot as a friend, a user is able to interact effortlessly with the Marketplace and community activities, enabled by natural language processing based on a neural network running reinforced learning models on an ever expanding dataset of conversational transactions.



Krowns

Blockchain

The Blockchain is arguably the first truly radical technological innovation of the 21st century, spearheaded by the Bitcoin Whitepaper published in 2009⁶. It provides a secure ledger system which is distributed across various network entities, thus offering a highly secure accountancy system which is cryptographically infallible against fraudulent transactions due to its decentralized nature.

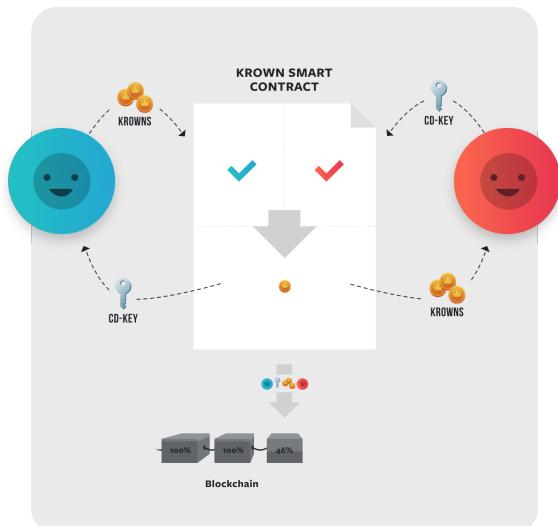
The nature of a blockchain makes it extremely difficult for the system to be compromised. Additional advantages include accessibility and transparency by all participants.

The goal of using blockchain as part of the Kinguin.io platform is to maintain proof of ownership and historical data when gamers and merchants engage in transactions using the platform.

Ethereum

Ethereum⁷ is the largest decentralized network that allows users to build up smart contracts and distributed applications without any downtime and without any third party interference. Ethereum is not just a crypto-currency, but also a software platform with a programming language (Solidity) running on the blockchain that enables developers to create and publish distributed applications.

These applications can interact with each other on the blockchain, so a library of useful functionality will gradually build up. Ethereum has relatively short block times (~12 seconds compared to BTC's ~10 minutes). Consequently, while Bitcoin transactions normally take a few minutes to be cleared, Ethereum transactions are cleared almost instantly and in a matter of seconds.



⁶ <https://bitcoin.org/bitcoin.pdf>

⁷ <https://ethereum.org/>

Kinguin at a Glance

In 2013 Kinguin opened the door to the first marketplace where gamers could sell their secondary cd-keys, thus pioneering the secondary market for digital games. Today, five years after our inception, we've saved our global gaming community more than \$150 million dollars⁸.

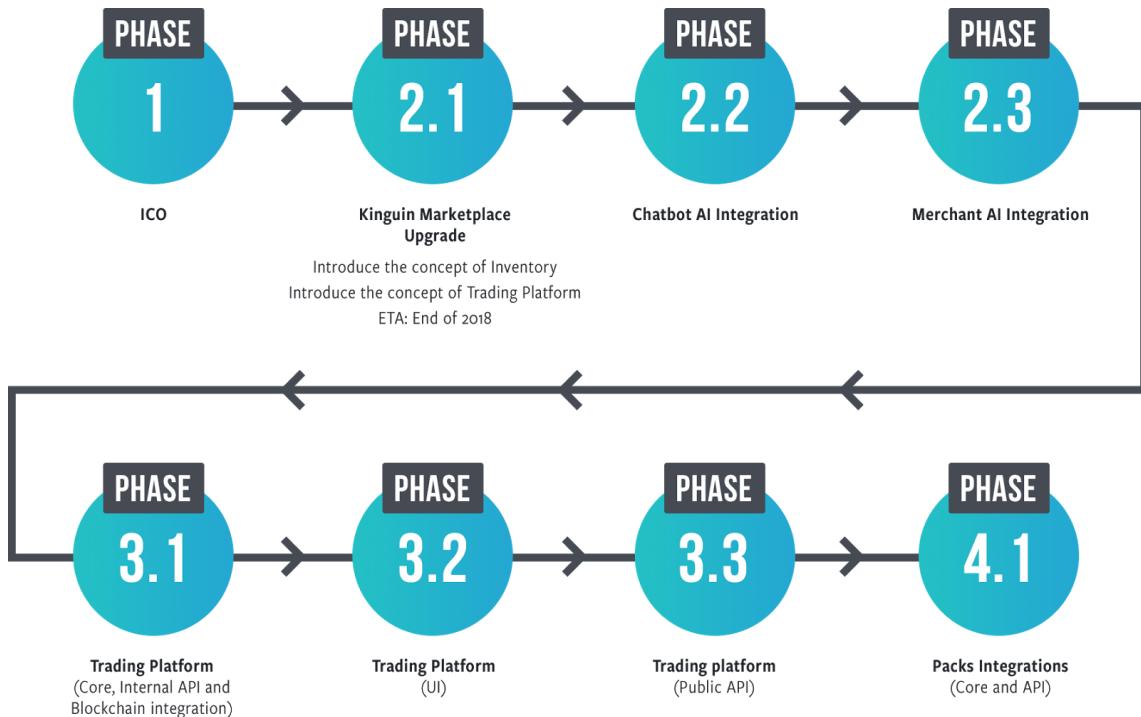
Viktor Romaniuk Wanli is the Founder and CEO of Kinguin. He pioneered the secondary market for digital games by creating the first marketplace where gamers could monetize extra cd-keys. This year the secondary market is projected to surpass one billion dollars annually. He is now laying the foundation for a new generation of gamers, traders and creators to monetize their game.



KINGUIN

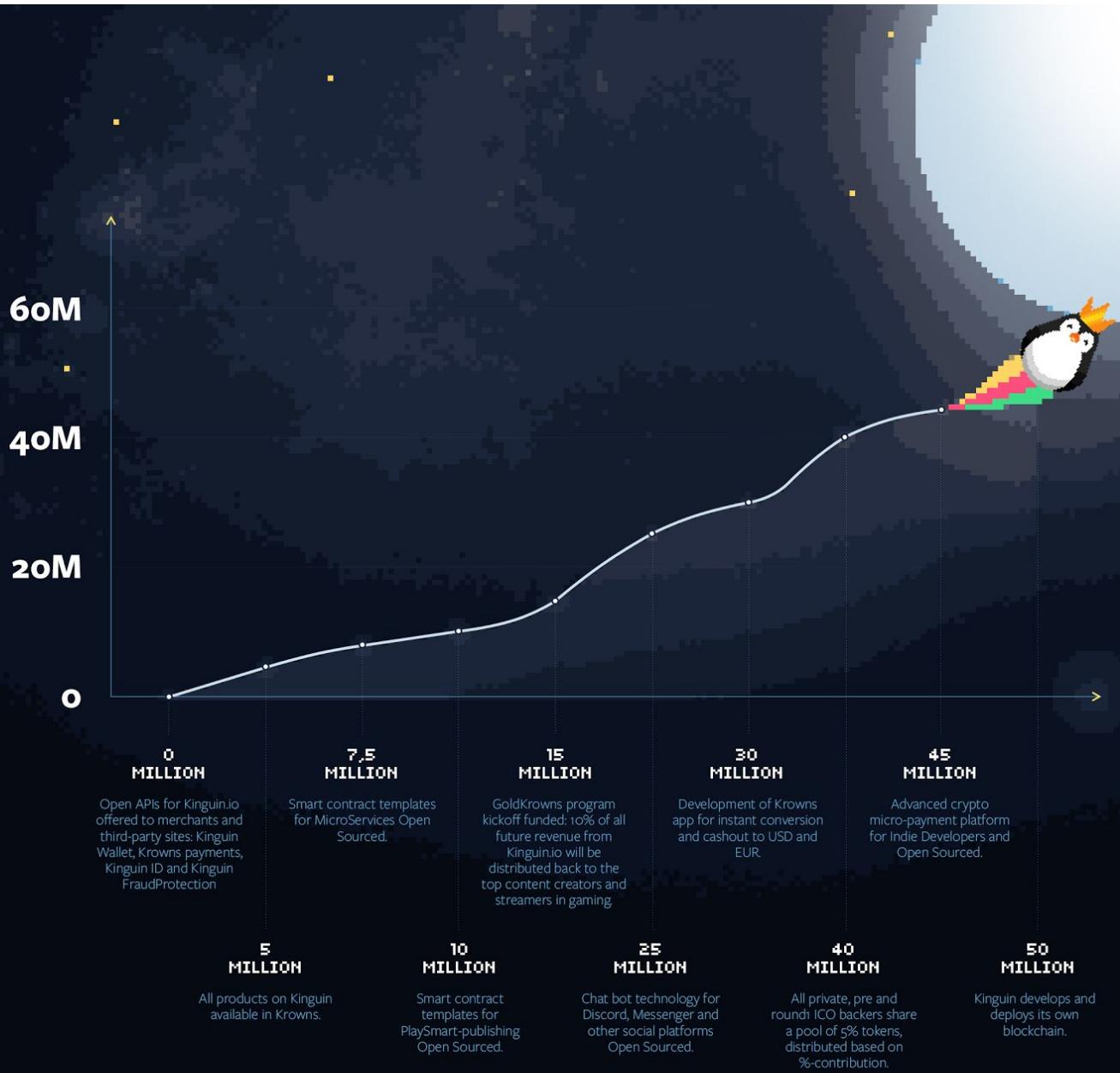
⁸ Compared to official outlet prices

Roadmap



Please note that the Roadmap is subject to change until February 15th 2018, as architecture and design decisions are still being made at this point. Please check <https://kinguin.io> for the final version of the Whitepaper at that date.

Funding goals and commitments



Changelog

Version 1.0: Original Whitepaper.

Version 1.1: Rewording to better align with concept.

Version 2.0.0: Big rewrite. Changed to semantic versioning. Changed structure, added Mission statement, changed Technology description.

Version 2.1.0: Added Use cases, and more detailed Funding goals.

Version 2.1.1: Small changes to wording. Added Changelog.