

# REPUBLIA

Comparative analysis of  
existing ecosystems and  
Republia ecosystem



# INTRODUCTION

Republic is a global decentralized ecosystem that within a single project combines all the structural mechanisms and platforms which are able to meet user demand.

In addition, all subsystems are based on its own blockchain - Republia Blockchain.

This document presents a comparative analysis of existing ecosystems, drawing users' attention to drawbacks of the industry.

This research has been conducted to define vulnerabilities of competitive projects and vulnerabilities, which will be eradicated by Republia Ecosystem. The data were collected and analysed, based on information obtained from various resources of submitted projects, as well as official documents, websites, forums etc.

## CRITERIA FOR COMPARATIVE ANALYSIS

### Management

**Management** criteria define project decentralization level.

### Mining

**Mining** criteria determine possibilities for mining coins and tokens within a project.

### Wallet

**Wallet** - analysis of official wallets through the criteria of comfortable usage and multi-functionality.

### Volatility

**Volatility** - exchange rate variability of coin or token, which can lead to loss of funds.

### Government support

**Government support** - cooperation with regulatory authorities and/or government representatives, introduction of legislation and integrating blockchain into government institution.

## Launching ICO on the project platform

Criteria of **launching ICO on the project platform** determine the availability of own ICO platform and profitability from project deployment.

## Crypto exchange

**Crypto exchange** - availability of crypto exchanges.

# RESULTS

The following analysis is based on a comparative study of popular projects, which provide the industry with technologies and introduce own ecosystems. The data below have been compiled on the basis of information from their publications, websites, videos and other materials, available in public domain.

## Comparative analysis of existing ecosystems and Republia ecosystem

Criteria	Republia	Icon	NEM	NEO	Waves	EOS	Cardano
Management	Full fledged decentralization	Full fledged decentralization	Limited decentralization	Centralization	Limited decentralization	Limited decentralization	Limited decentralization
Mining	Available to everyone	Not available	Limited mining	Limited mining	Limited mining	Not available	Limited mining
Wallet	Multi-functional	Limited functionality	Multi-functional	Limited functionality	Limited functionality	Not available	Limited functionality
Volatility	Low	High	High	High	High	High	High
Government support	Close cooperation	Close cooperation	Close cooperation	Close cooperation	No cooperation	No cooperation	Close cooperation
Launching ICO on the project platform	Successful project launch	Platform does not exist	Platform does not exist	Profitable project launch	No benefits from project launch	No benefits from project launch	Successful project launch
Crypto exchange	Two crypto exchanges are available	Not available	Not available	Not available	Available	Not available	Not available

## PLEASE, REFER TO TABLE 1. FOR DETAILED ANALYSIS



### Management

Republia is a large-scale and completely decentralized platform, as it operates under “we-ecosystem” principle, where users independently influence the ecosystem through transparent voting, avoiding any possible vote fraud.

### Mining

In Republia every user can mine blocks, as ordinary nodes are responsible for RPB mining and recording into a block. Since in Republia blockchain mining occurs via consensus algorithm, only nodes, which are allowed by the system in accordance with verification of RepubliaID and rating system, can add entries to distributed register.

### Wallet

Republia introduces multi-functional Republia Wallet, where users can view their transaction history, send or accept payment, exchange messages, share files with others and create smart contracts. Also, direct voting system is embedded in Republia Wallet, so users can vote directly on any poll within the ecosystem.

### Volatility

RPB coin is an internal payment tool, which is not vulnerable to high volatility. Smoothing of volatility is achieved by implementing Republia Bank, one of the key components of the economic model of decentralized Republia ecosystem. Also, due to smoothed volatility, RPB coin price is increasing gradually influenced by promotion of Republia ecosystem and incremental delivery of its components.

### Government support

Developers of decentralized Republia ecosystem established an official Working Group to draft legislation for the regulation of blockchain technology and cryptocurrency in Ukraine. Also, Republia developers aim at international cooperation in order to implement self-developed blockchain in government institutions. Moreover, there are plans to establish legislative framework governing blockchain technology and cryptocurrency in order to regulate them internationally.

### Launching ICO on the project platform

Since Republia ecosystem operates using “we-ecosystem” management model, it is extensible by other projects, which are being created using Republia ICO Platform, users independently decide whether they need such a project within the ecosystem. Projects should put their ideas to the vote in order to gain support among ecosystem participants. Moreover, users will be able to improve any project of the ecosystem by voting. Thus, users get a product that meets all industry requirements, ecosystem that meets their needs, as well as increase of the investments achieved by constant system improvement. ICO projects, in turn, are in high demand, influenced by voting, and obtain financing, collected on the internal platform, and active users participate in project development.

### Crypto exchange

Republia Exchange is a main platform for the exchange of assets and creation of liquidity for RPB cryptocurrency. Users can choose between two types of crypto exchanges - Rialto и Emporium. Rialto exchange is implemented using Atomic Swap technology with the most popular Top-20 cryptocurrencies, its priorities include complete anonymity when making transactions.

Emporium, in turn, provides opportunity to exchange and make transactions using internal Republia bank card. When making transactions using Republia debit card certain amount of RPB coins will be sold according to market order and transaction will be made faster, than in such popular payment systems as MasterCard or Visa due to instantaneous operation of Atomic Swap mechanism.



### Management

Each blockchain, which is part of the system architecture, introduces own management tools that provide the system with equal opportunities. It proves that the platform is of democratic nature.

### Mining

Mining is not available by design. The only option is to buy coins on crypto exchanges.



## Wallet

There is an official cryptocurrency wallet - ICONex, which can be used only for storing, sending and exchanging its tokens to other cryptocurrencies.

## Volatility

It is difficult to predict the price of cryptocurrency, the system suffers from high volatility. Cryptocurrency is inflationary, that is a cause for concern among cryptocurrency experts. Annual inflation rate is 20%, which raises doubts about long-term earnings from ICX token.

## Government support

The government of South Korea officially supports ICON token. However, some experts state that the government will prevent the project from international dissemination. In such a case, ICON will lose its importance. It is observed that the project is developing locally. It is not obvious whether ICON will be able to access global markets under the conditions of increasing government control.

## Launching ICO on the project platform

There are no plans to develop own ICO platform.

## Crypto exchange

There are no crypto exchanges within ICON project



## Management

To qualify to vote and influence project development the user must have 3 million NEM coins on his account. As resources on account grow, commission also grows.

## Mining

In order for XEM cryptocurrency to be mined the user must have at least 2000 XEM, which indicates limited mining for a significant number of users. NEM operates using improved PoS - POI algorithm, where stakes have been added by number of transactions and account lifetime. Thus, algorithm is a unique, but not innovative, because it does not provide added value comparing to others.

## Wallet

NEM cryptocurrency wallet (Nano Wallet) can be used for storing and sending XEM tokens. NEM WeChat Wallet users can link NEM-wallet addresses to contacts in order to execute cryptocurrency transactions through messenger.

## Volatility

526 million XEM coins were stolen from one of the largest crypto exchanges in Japan(Coincheck). In addition, NEM representatives stated that they had already stopped to track stolen assets. This occurrence has had a negative impact on coin price and capitalisation of XEM cryptocurrency.

## Government support

Since headquarters of the company is in Japan and it is being controlled by Japanese regulatory authorities, NEM cryptocurrency is not anonymous, because Japanese government does not support anonymity of ICO project users.

## Launching ICO on the project platform

There are no plans to develop own ICO platform.

## Crypto exchange

NEM developers only plan to create their own crypto exchange.



## Management

NEO founders control almost 60% of the platform, so developers are able to track any transaction due to direct access to transaction history.

## Mining

Direct mining of NEO cryptocurrency is not available, users can only earn GAS, which is used to pay commission within the system. To receive GAS, a user must have at least 2000 coins on his account. Under these conditions user will automatically receive 1 GAS every day. Thus, mining is available for a limited number of users and only if a user has at least \$66.000 on his NEO cryptocurrency account.

## Wallet

There are three types of NEO wallets - web wallet, mobile wallet and desktop wallet. The wallet can be used only for storing and sending NEO cryptocurrency.

## Volatility

Since Chinese authorities control the platform, it is being continuously modified. Chinese authorities often introduce additional regulations and restrictions, which directly influence volatility. History of NEO coin price volatility shows that coin price is vulnerable to sharp declines.

## Government support

Within the framework of cooperation with Chinese government authorities, OnChain software company is working to introduce public services of digital identification.

## Launching ICO on the project platform

NEO platform is very popular among large projects.

## Crypto exchange

There are no crypto exchanges within NEO platform.



## Management

Waves project represents centralised order matching system. There can be more than one matching node, but matching is not subject to consensus rules. Thus, each individual matching node is centralized for orders it takes and is vulnerable through a security perspective. This obviously enables DDOS attacks on individual points of a certain order matching node.

## Mining

Mining is available only for nodes. To become a node, user must have at least 10 thousand Waves on his account.

## Wallet

Cryptocurrency wallet allows user to receive, store and send Waves cryptocurrency. Minimum top-up amount is 0.01 BTC.

## Volatility

There are no tools for smoothing Waves volatility.

## Government support

The platform introduces own tokenization. Some users have a negative attitude toward this model. Waves does not cooperate closely with government representatives.

## Launching ICO on the project platform

Tokens, released on Waves platform, are complicated if you are going to use them on other crypto exchanges, besides internal Waves DEX crypto exchange. This situation may affect token liquidity.

## Crypto exchange

Waves introduces Waves DEX crypto exchange, which provides users with the ability to create their own crypto trading pairs. Waves DEX transaction throughput is 1000 transactions per second.



## Management

Despite decentralization, in fact, large asset holders will control the system. They will have multiple opportunities and privileges to use the platform. Sometimes EOS Core Arbitration Forum (ECAAF) blocks personal accounts of large asset holders and freezes their assets without any explanation.

## Mining

Mining is not available by design. Users are offered to participate in ICO and receive coins.

## Wallet

EOS project does not have an official wallet. Moreover, there is no information available on whether crypto wallet developers support EOS token.

## Volatility

In July 2017 the official price was put at 1 cent per EOS coin, but in one month the value of EOS climbed to 1 dollar, in two months it climbed to 5 dollars. In September while other cryptocurrencies were increasing in value, price of EOS coin went down to 60 cents. Experts state that some users do not trust developers, therefore sharp drop in the price occurred.

### Government support

EOS developers are neutral in establishing contacts with government institutions.

### Launching ICO on the project platform

Neither technical documentation nor actual source code have been provided by developers.

### Crypto exchange

There are no crypto exchanges within EOS project.



### Management

Within the Republic of Korea daily ADA trading volume is 75 percent . Also, 25 percent of a reward for creating a block are stored, and Cardano users decide on how to spend collected funds by voting (fraud may occur, because voting process is not recorded on a block).



## Mining

Centralized mining is available. It occurs with the help of Cardano nodes and there is no reward, but developers promised to improve Cardano mining in the second quarter of 2018.

## Wallet

The wallet allows user to receive, store and send ADA cryptocurrency. ADA cryptocurrency uses Haskell programming language, which does not ensure code quality, but the project is in constant search for assistance in software development. It is not that easy to implement code using Haskell programming language. If Cardano platform manage to attract qualified application developers, the project will be of practical use. The technological effectiveness of the platform is not determined, because its major innovations are being investigated.

## Volatility

Cardano developers are establishing contacts with government institutions, providing the coin with a status of the official payment tool.

## Government supply

Cardano project, in fact, is a platform for launching blockchain applications.

## Crypto exchange

There are no crypto exchanges within CARDANO project.