



Very Quick Access to Anything

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Abstract

VQ Marketplace is a platform that allows entrepreneurs, creatives and businesses to build marketplaces, with a focus on the on-demand sector. The platform enables buyers and sellers of goods, services and spaces (car-sharing, service-based tasks, home-sharing etc. but also traditional B2B marketplaces) to connect and transact. Furthermore, We create VQ Ecosystem of Marketplaces that concentrates on boosting Network Effects between different stakeholders in the Ecosystem.

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Executive Summary

We design and build **VQ Marketplace Ecosystem**, a decentralized open source marketplace ecosystem for product, service and rental marketplace verticals. VQ Marketplace Ecosystem will be the first system which allows the demand and supply to deal with each other on the platform across different marketplace verticals without any fee or commission. In addition to that, we will build marketplace templates for all the supported verticals that can be customized and deployed cost-free by anyone in our ecosystem. The decentralized system will hold the VQ listings and booking ledger which will be the core of the engine.

Existing platforms (e.g. Amazon.com, Airbnb.com, TaskRabbit.com) are currently centralized and take fees from the supply and/or the demand side. Additional middlemen are the payment processors. All listings and deal parameters in the VQ Marketplace Ecosystem will be decentralized on the Ethereum blockchain, eliminating all middlemen and guaranteeing transparent execution.

Value for Marketplace Creators

We enable entrepreneurs and small business owners to start their own marketplace platforms in seconds. One-click solutions for coping predefined marketplace templates and other running marketplaces will be provided. No developers are needed for starting a new marketplace. The marketplace can be easily build and managed through the Admin dashboard. Enabling anyone to start an online rental, service and product marketplace will boost competition and ensure that the marketplaces must stay on the edge to stay in business. We will build an ecosystem that is self-sufficient and powerful enough to compete with the biggest marketplace providers in the over 1 trillion online marketplace sector.

Value for Suppliers

In the VQ Marketplace Ecosystem, suppliers who posts listings on one marketplace, will be able to publish their listings automatically on other marketplaces in the same vertical in the ecosystem. Product marketplaces, apartment rentals, services and ride-sharing marketplaces are examples of possible verticals. Furthermore, we will implement Network Effects to connect and boost collaboration among suppliers on the platform.

Value for Customers

Customers will be able to browse for the properties, products and services, using both web and mobile apps. Customers will be able to access the same platform across different boundaries. The zero commission which by default is a feature of the decentralized VQM Ledger, will provide the lowest rates, possible only when end customer and property owner deal directly. Customers will have one global account in the ecosystem and one global reputation.

Value for the world

For the world — The entire decentralized VQM Ledger, built on the Ethereum blockchain, will be open source and free-to-use by anyone in the world. The entire end-user application codebase of VQM are and will be completely open-sourced to boost competition and lower market entry in the Marketplace Ecosystem.

Introduction

The rise of the Sharing and On-demand Economy



Due to limited resources, people are now striving to create sustainable solutions which generate not only economic prospects, but true value for both users and providers alike. The two main foundational aspects of the Sharing Economy are: the conversion of idle assets into economic opportunities, and the building of communities through the sharing of goods and services amongst one of more entities. Since its inception, the Sharing Economy concept has rapidly spread across the globe, in large part due to innovative SaaS (Software-as a-Service) solutions and the ever-growing globalization of communication platforms. This shift in economic structure has resulted in the creation and overwhelming success of several online marketplaces, spanning a wide variety of sectors, in an attempt to meet the accelerating demand. One such example is Airbnb, a peer-to-peer accommodation platform created in 2008, which had a reported value of roughly \$30 billion in 2016. Shortly thereafter Uber, a personal taxi service, was launched and now has a reported value of over \$68 billion.

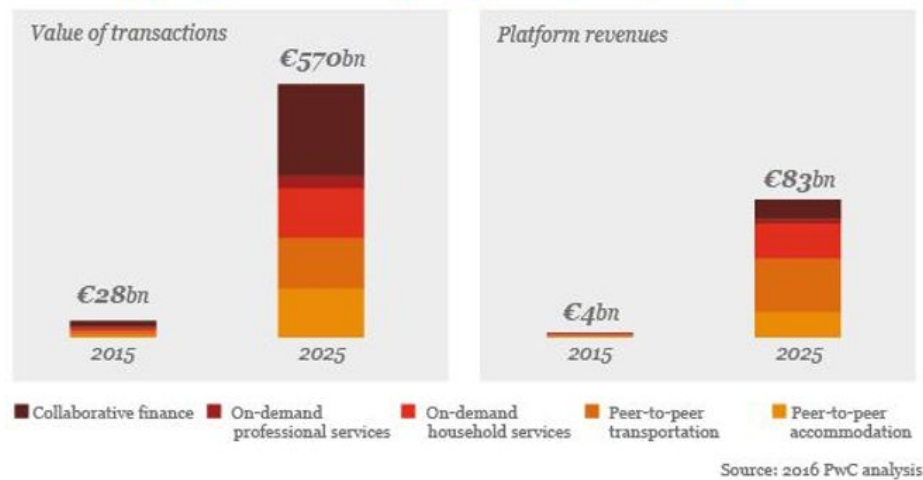
This shift has been noticed by everyone from small start-ups to globally established corporations; resulting in a need for efficient online marketplaces, which seamlessly combine supply and demand in one platform. However, the creation, implementation and maintenance of the aforementioned software is no easy task. It requires a substantial amount of time, and a very specific skill set, which can be cost prohibitive for new and smaller companies to create and sustain.

The future of the Sharing Economy

The value of sharing is an inherent trait in human nature, our technology system will enable users to raise it to a new level. The Sharing Economy has the potential to address global issues such as: the unsustainable growth of cities and their required resources, poverty, and the degradation of community values.

From a purely financial point of view, the Sharing Economy is projected to undergo exponential growth and generate a transactional value of \$570 billion by 2025. With the growth of newly emerging online marketplaces, the market will experience a decentralization, further facilitated by Blockchain technology.

Revenues and total transaction value facilitated by sharing economy platforms in Europe by sector, 2015-2025



VQ Marketplace recognizes the potential of growth and the positive outcomes which can be achieved through the Sharing Economy. By enabling the creation of online-marketplaces for anyone in short time, we empower entrepreneurs to turn their ideas into reality, helping them realize their full potential while also aiding in the development and success of the global economy.

Vision

We believe anyone should have quick access to anything. The Sharing Economy will play a major role in the sustainability and success of societies social and economic development by replacing 'ownership' with 'access' through peer-to-peer and on-demand platforms. We strive to further increase its effect by decentralizing the Sharing and On-Demand Economy. Our solutions will allow to bring people together and for them to interact and share with one another without the need for an intermediary. Anyone with an idea will be able to start an online marketplace and this democratization process will lead towards a more sustainable future by contributing to the social and economic growth of societies.

Network Effects

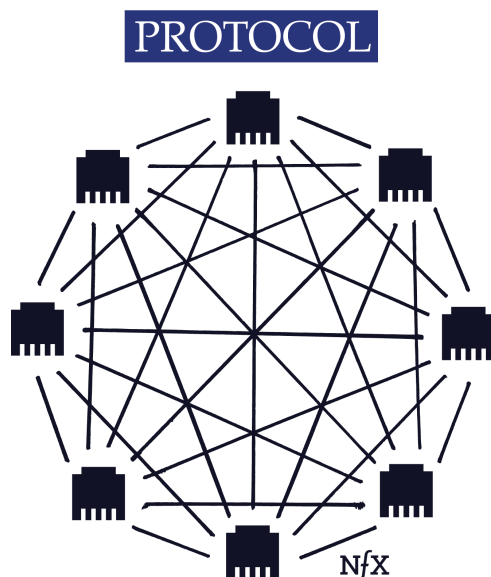
A network effect (also called network externality or demand-side economies of scale) is the positive effect described in economics and business that an additional user of a good or service has on the value of that product to others. When a network effect is present, the value of a product or service increases according to the number of others using it.

“Once you’ve built a strong network effect, it’s really difficult for others to compete with you.”, says James Currier from NFX Guild.

In the following, an overview of relevant network effects are discussed.

Protocol Network Effect

A Protocol Network Effect arises when a communications or computational standard is declared and all nodes and node creators can plug into the network using that protocol. Bitcoin and Ethereum are recent examples of protocol networks. The protocol setter can be either an individual company, a group of companies, or a panel.



Protocol networks coalesce around communication and computational standards, which form the basis for the links between nodes (e.g. Bitcoin miners and Bitcoin wallets).

Ethernet is another, more traditional, example of a Protocol Network Effect. When Robert Metcalfe founded 3Com, he persuaded DEC, Intel, and Xerox to adopt Ethernet as a standard protocol for local computer networks, with a standard speed of 10 megabits per second, 48-bit addresses, and a global 16-bit Ethertype-type field. Competing proprietary protocols existed, but as Ethernet pulled away and began to capture more and more market share, Ethernet-compatible products flooded the market. This increased the value of Ethernet at a compounding rate and decreased the value of competitors, regardless of their relative performance. Soon, ethernet ports became standard features of all modern computers.

Once a protocol has been adopted, it is extremely difficult to replace. Note how the fax protocol is still in use, or the TCP/IP protocol (even though other, better protocols now exist for those purposes).

It's also true that the protocol creator doesn't typically capture most of the value from the development of the network, as they normally do with other direct nfx.

This distribution of value in a Protocol Network can be shifted if the protocol creator can maintain ownership of a significant percentage of the tokens within a token-enabled network, or maintain central control over addressing, identity, wallets, naming, or prioritization and still get the network to adopt the protocol.

The success of such an adoption strategy is often less about technology and more about marketing, social engineering, and choice of market niche. That's why VHS beat Betamax, even though Betamax was arguably a better standard. It's also part of why Bitcoin has taken off as a digital store of value, when it is costly to operate and less transactional than many other digital currencies.

(Source: <https://www.nfx.com/post/network-effects-manual#protocol-direct>)

Market Network Effect

A Market Network combines the elements of a **professional network, an online marketplace, and a SaaS tool all in one**. As a result, its network effects and defensibility are more powerful than that which any of the three elements would provide alone. At the core no marketplace is as defensible as other marketplaces combined due to the significant multi-tenanting on the supply side, so there was a drive for scale and deepening the network effect.

Problems faced by new online marketplaces (OMP):

- With the established paradigm in the market "Winner takes it all", it is often hard to enter the market and compete with existing players.

- Creating an OMP requires technological know-how & time. People usually lack one/both, and often do not possess the financial resources pay for professional assistance.
- People prefer to start with a simple, but well-functioning solution in order to validate their idea. This allows them to build a solid user base prior to investing large amounts of money.

Problems faced by customers:

- Customer are charged high fees, often ranging to 30% of the transaction volume for transacting on existing on-demand and conventional marketplaces

Problems faced by suppliers:

- Suppliers need to maintain their listing portfolio on a wide range of platforms to ensure the exposure.

Entrepreneurs need a Minimum Viable Product with the potential for growth

Entrepreneurs need to validate their ideas prior to investing significant amounts of money. This demand for Sharing Economy platforms can be seen in various sectors, to include: logistics, transportation, aerospace, corporate and many others. To meet the growing demand and enable entrepreneurs to quickly obtain a Minimum Viable Product (MVP), we built a marketplace platform that can support exchange and rentals of goods, services and products.

VQ Marketplace Platform

- A platform which enables creators to easily start, build and manage their marketplace.
- Create a Minimum Viable Product (MVP) at zero-risk: Creators have free access to a fully functional marketplace with the necessary features to allow for quick market entry, and idea validation, prior to the further development and growth of the marketplace community.
- Open source code and licence to build highly customized solutions based on the platform
- Leverages Network effects among suppliers and marketplace creators
- VQ Marketplace will be decentralized and gradually shifted on the Ethereum blockchain

VQ Marketplace Ecosystem

VQ LABS identified and will implement network effects early on and will leverage them to build strong supply and demand side, to incentivize growth and introduce defensibility in its ecosystem.

Marketplace Unions

In the VQ Marketplace Ecosystem, suppliers who posts listings on one Marketplace, will be able to publish their listings automatically on other Marketplaces in the same vertical that are part of the

Marketplace Union. Apartment rentals, services and ride-sharing marketplaces are examples of possible verticals.

The incentive for existing marketplaces to join the union, is to gain access to much bigger user base (namely of all of the marketplace owners) than they currently have.

For new marketplaces to join the union, the process of creating a new marketplace needs to show the following characteristics:

- It must be risk-free and not involve big upfront investment
- The start of the Marketplace needs to be easy and quick
- It must not involve technical expertise, at least at the beginning
- There is an existing user base

We will create initially predefined unions for every marketplace vertical where marketplace creators will be able to join without restriction and operate their marketplaces in a new geography with a differently designed user application/storefront or offering better fees.

Every marketplace joining the network thus increases the value for the end-consumer and every consumer creates more value for each Marketplace participating in the union.

Single User Identity and Seamless access to Marketplaces

In the Ecosystem, every user in the marketplace will have one global account instead of many separately for each marketplace. In this way, the customer will be able to use marketplaces in every vertical seamlessly. Imagine AirBnB (Rental Marketplace), Uber (On-Demand Taxi Marketplace), Amazon (Product Marketplace) in one Network. Every user that comes to the ecosystem profits from a spectrum of all the different marketplaces offerings combined without the hurdle of having multiple accounts / identities.

Connecting Suppliers on a Marketplace and Marketplace Unions

We will create a community approach on the supply side on every Marketplace. When a service provider gets a deal, they can source help from other people on the platform and join forces with them. Suppliers will be able to form teams. The Supplier teams will give the following advantages:

- Handling requests together or per individual availability.

Marketplace Templates - Copy Marketplaces seamlessly in the Network

We will start a Marketplace of Marketplace Templates. It will allow to start a copy of predesigned or already existing marketplace platform in seconds. Everyone will be able to create a template for configuration utilizing our standards and protocols. It should lower the hurdle of starting a new marketplace, incentivise to transfer existing business model in a new geography, form local markets and

increase the competitiveness in the market. The Marketplace operators own their brand, but the marketplace infrastructure is intended to be a public good.

Single reputation in the network

We will integrate with a global decentralized Reputation System based on the [Ink Protocol](#).

Decentralized VQM Ledger

The Decentralized VQM Ledger is the engine that regulates all transactions and relationships between the suppliers and the clients. In its core, there are going to be rules and operations governed by smart contracts which will be deployed in the Ethereum Blockchain.

The VQM Ledger will keep record of all transactions and will regulate the transaction executions through client/supplier driven smart contract triggers. The VQM Ledger will run solely with the native VQM token and any application that wishes to connect to the engine will have the freedom to provide added value services such as support of additional payment methods which they can convert into VQM at the time of the booking. This can be done either through integration to external exchanges or by converting the currencies themselves with an internal algorithm.

Some of the operations (but not limited to) the decentralized VQM Ledger will run:

- Product, service and rental listings
- Purchase, service and rental requests
- Booking confirmation policy (instant, after request)
- Escrow accounts for deposits
- Deposit release or refund
- Disputes

VQM Token

The native VQM token will be an integral part of the ecosystem. The more marketplaces connect to the VQM engine, the higher the usage and adoption of the VQM token.

Since the VQM Ledger will be an entirely new marketplace backend, we find it of importance to have a fully integrated and operational marketplace applications for each marketplace vertical that will be connected with the VQM Ledger and act as a front-end. As such, we will make it easy and provide a range of value-adding services for building and managing marketplaces. VQM Token will be used in the VQ Marketplace Ecosystem as means of payment for subscriptions to these services.

Subscriptions to centralized back-end service

Every node that fulfils our requirements will be able to run a marketplace node.

Subscriptions to the VQ Marketplace Service will be paid in VQM Tokens or in other currencies which will be automatically converted to VQM tokens. 50% of the subscriptions received will be burned (sent to an address noone has access to). Each token burn will decrease the available supply of the token, thus

increasing each holder's percentage of ownership. It will be up to the holder of the token if he should sell or hold the increase in relative ownership.

- **No transaction costs** - Instead of many small transactions to every token holder separately, we need just to conduct few transactions on exchanges to purchase the required amount of the token to be burnt.
- **No profit-sharing with exchanges** - Many token holders store small and medium amounts of tokens on exchanges on a custom address. There is a risk that unaware holders of exchange may not distribute the profits to the token holder.
- **Regulatory safety** - if VQM token was associated dividend-like profit-sharing, it could be assumed as a security by regulators and have a more difficult path to be listed on popular cryptocurrency exchanges.

Referrals

We want early buyers and suppliers to promote the platform to their peers. A referral program that offers gradually decreasing token award sizes as verified referrals are completed will be implemented to incentivize individuals and businesses to engage in grassroots marketing to increase the total number of network participants. In this way, early advocates of the platform will get a larger stake of VQM token than later advocates as they are doing the hard work of building up the buyer and seller user bases. Again, we will put the requisite verification and fraud prevention measures in place to make sure this is a healthy, honest rewards system.

Token as reputation in the system

Both clients and suppliers can increase the trustworthiness of their accounts by staking VQM token as a second way of increasing their reputation rating on the platform. Suppliers with bigger VQM stakes will potentially show up higher in browse and search results. Clients with staked account will be able to instantly book without having to go through a back-and-forth messaging process with some suppliers.

Token collateral

Malicious behavior (e.g. failing to return a rented asset, creating fraudulent listings) will result in the possible freeze of the token that is staked at the account. In this way, the trusted accounts will not have an incentive to exploit the system.

Architecture overview

VQ Marketplace is an open-source platform consisting of many micro-projects and is built on top of several existing open-source libraries and protocols.

1) User Layer

The user interface on different platforms, starting with responsive web and then mobile clients for Apple and Android smartphones and tablets. We will provide configuration and design templates for each marketplace vertical and for each platform for the marketplace creators. The User Layer is offered as a Service on a subscription basis to marketplace creators. It will be up to the marketplace creator to

choose which node / provider he chooses for running the centralised user layer.

Web application storefront for marketplaces and admin panel:

<https://github.com/vq-labs/vq-marketplace-web-app>

Web Landing page component. It is a separate component with the purpose to enable a smooth indexing by Search Engines and increasing the score of the marketplace in the Search Results.

<https://github.com/vq-labs/vq-marketplace-landing-page>

2) Centralized Backend Layer – The central backend will keep a mirror database of the decentralized VQM Ledger and entails integrations with external centralised services.

- A) As it is expensive to keep data on blockchain, the layer will keep the heavy data (pictures, videos or any other content) on its servers.
- B) It is crucial that confidential user data is not shared on the blockchain. The centralised back-end layer will keep the private data of each of the customer. The provider of the layer (it may be the marketplace creator itself) will be responsible for securing the data.

The Platform follows RESTful standards of data exchange to allow easy and fast integration with third-party providers.

VQ will open the network and enable delegated node program. The Centralized Backend Layer is offered as a Service on a subscription basis to marketplace creators. It will be up to the marketplace creator to choose which node / provider he chooses for running the centralised backend-layer.

<https://github.com/vq-labs/vq-marketplace-platform>

3) Decentralized Blockchain Layer – Using the Ethereum Blockchain, VQ Labs will keep an address book of all listings on the blockchain and users in the marketplace ecosystem. Settlement information will be recorded, secured and executed on blockchain (the payment rules for each property deal).

This layer is open-source and will remain for universal free use by everyone. We will encourage more applications to use it in the future which on its end can widen the practical applications for the VQM token.

Admin panel gives insights into user and transaction data on the marketplace, allows customizing and management of the Marketplace.

<https://github.com/vq-labs/vq-marketplace-web-app>

Timeline

2017-Q1 - Market research and PoC VQ Marketplace Platform

2017-Q2 - Proof of Concept and Start of Service Marketplace based on the VQ Marketplace Platform

2017-Q4 - Beta release of the VQ Marketplace Platform with 1 vertical: Services

2018-Q1 - Beta release of additional Marketplace Verticals: Products, Rentals

2018-Q1 - White paper preparation

2018-Q1 - Legal framework for organising an ICO

2018-Q2 - End of Beta and Launch of Stable VQ Marketplace Platform (Back-End Centralised Layer and User Layer)

2018-Q2 - Whitelisting for ICO-Presale starts

2018-Q2 - Implementation of sale smart contracts

2018-Q2 - Start of template marketplace

2018-Q3 - Proof of Concept: Listings on Ethereum Blockchain

2018-Q3 - Proof of Concept: Start of the first Marketplace Vertical

2018-Q4 - Token sale

2019-Q1 - Marketplace Unions Launch with 1 Vertical

2019-Q2 - Additional Vertical for Marketplace Union

2019-Q2 - Delegated node program for Centralised back-end layer

2019-Q3 - Additional Vertical for Marketplace Union (Products)

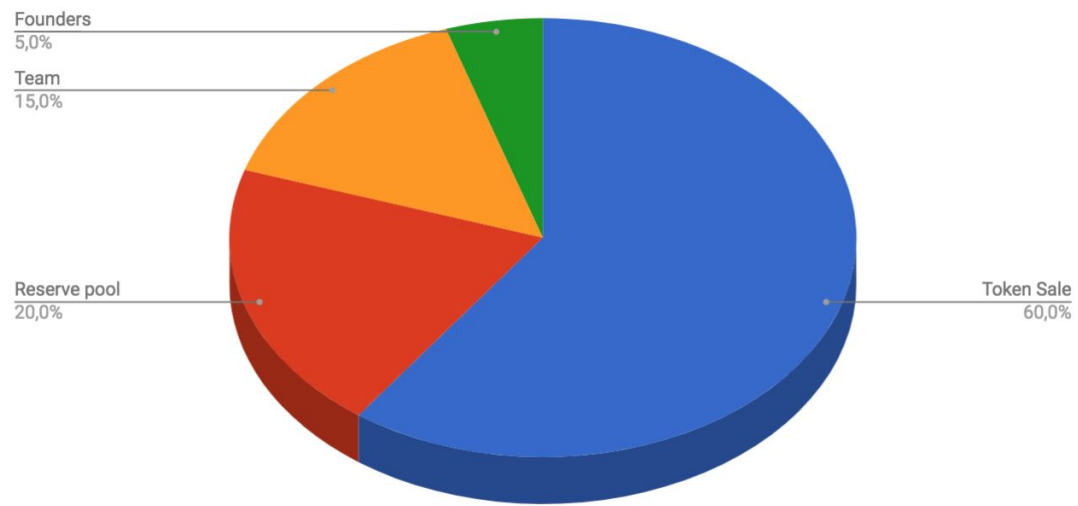
2019-Q4 - Single User Identity in the Network

2019-Q4 - Global users Rating and Reputation across the Network

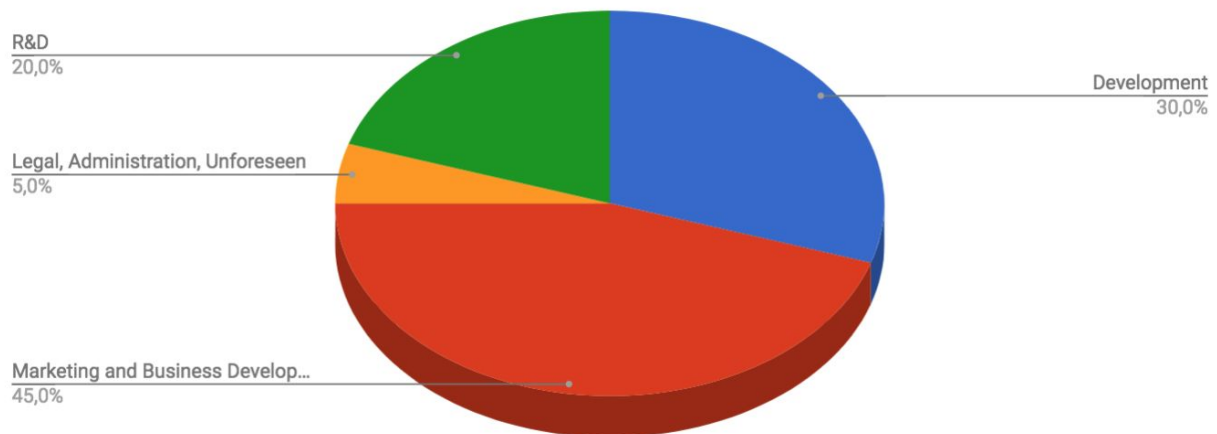
Token Sale

Ticker Symbol	VQM
Token Background	VQM is built as an ERC20 token on the Ethereum blockchain
Total Supply	500 MM
Target Raise	15000 ETH
Hard Cap	25000 ETH
Scheduled Start	16:00 GMT on 29th of August 2018
Planned End	16:00 GMT on 29th of September 2018

Token Distribution



Budget Allocation



Team

// todo

Advisors

// todo

Partners



InnoWerft is our strategic partner and also a significant shareholder. InnoWerft is the first key partner/investor and are constantly helping us in business development. FZI is a research institute for applied research in computer science from Karlsruhe.

Summary

For the past two decades, Internet marketplaces have changed the way that buyers and sellers connect, creating new opportunities for the exchange of goods and services. However, these marketplaces have always been governed by centralized companies that maintain their individual monopolies on data, transaction and other service fees, and ultimately, user choice. With blockchain and other distributed technologies beginning to hit the mainstream, the world is poised for a new wave of decentralized commerce. VQ is focused on bringing change and innovation to the marketplace economy. We're excited by the opportunity to lower fees, increase innovation, free customer and transaction data, and decrease censorship and unnecessary regulation. Even if you are perfectly content with the centralized providers of today, what about the day when these monopolies stop being so benevolent? We hope you agree that future-proofing our world against oligarchs and tyrants is a worthwhile endeavor. We are building a platform that invites other interested parties including developers and entrepreneurs to build this technology and community with us, altogether working to create the economy of tomorrow.

We hope you'll join us on this exciting journey.

References

- (1) **Network Effects Manual by NFX**

[<https://www.nfx.com/post/network-effects-manual#market-networks>]