



Building infrastructure for the future of art investments and donations

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# 1. Executive summary

**1.1 Orion Vault:** Building **infrastructure** for the future of art investments and donation. Creating fully digital, unique masterpieces, with ownership coded on blockchain. Providing **marketplace** to trade this new **digital asset class**, faster, more secure and cheaper than current solutions. All built with new **social business model**, that allows museums and artists to create new revenue streams.

## 1.2 Problem:

- **Inaccessibility of art market** - the most desirable artworks are not for sale since they are owned by museums/foundations, e.g. the Mona Lisa in Louvre. There are high barriers of entry. Most investors cannot afford fine art masterpieces like Picasso or Da Vinci. Art funds require relatively high investment (\$250k+) and offer low liquidity (5+ year lockups). What is left is investing in younger/rising artists but not without high risk, as such investment is exposed to volatility and low liquidity.
- **Lack of transparency** - It's difficult to track ownership (provenance) and investors rely on personal trust. This leads to many scams and fraud (15% to 40% of overall art market). There is a lack of price transparency and high fees due to multiple middlemen, and on top of that additional costs eg. storage, insurance, transport, taxes. All of that reduces profits for investors by 40%-50%.

## 1.3 Solution:

- **New digital asset class** and investment opportunities created to expand the art market
  - Digital Masterpieces - partnering with artists and museums like the Louvre to make hyper-detailed digital versions of the most desired fine art pieces, e.g. the Mona Lisa. Only one digital piece will be certified ever and can be tracked and traded by investors on blockchain.
  - Tokenization of art - ability to buy, own and trade a percentage ownership of famous paintings, e.g. owning 2% of Picasso's painting.
  - Patronage model with investment opportunities where investors support artists with smaller donations each month and in return they share profits from the sale.
- **Trusted and transparent blockchain based marketplace** where ownership of all artworks is recorded and transferred through blockchain, securing lower and transparent fees.

**1.4 Benefit: Make more money** for investors, artists, collectors and museums. Preserve world's culture and provide museums and artists with additional revenue streams.

**1.5 Market - \$100bn** with strong growth potential.

**1.6 Business model:** 5% fee on all deals made on the platform and 1-2% fee on donations, current models are 5x-10x higher.

**1.7 Team:** international and experienced team (10+ years) from US, Europe, Asia consisting of developers, UX, product managers, finance, communication and business development professionals. The team comes from Google, Facebook, JPMorgan, Citibank, Startups.

**1.8 ICO:** Soft-Cap \$11M; Hard-Cap \$100M; 380M tokens created, 280M for ICO, 1 Token = \$0.36 / 1 ETH = 1369 tokens. Unused tokens burned. Team tokens with 1 year lock up.

**1.9 Funding allocation:** platform development 45%; partnerships and business development 30%; marketing 15%; legal and admin 10%; Funding target in line with market standards for online art marketplaces, 18-24 months to becoming cash flow positive.

## 2. Introduction

### 2.1 Motivation

Art has always been at the heart of human communities and civilisations. It has been with us before we knew how to write or talk, and long before we invented money. From the Paleolithic cave paintings to the Da Vinci inspired art on the Pioneer spacecraft traversing the universe; art has always accompanied us as a species. However the current art market is stagnated, with the majority clinging to business models that have not evolved in the last 500 years. Far from embracing new transparent opportunities, the art market is probably more closed and opaque than ever. We are changing this.

Imagine a world where all art is preserved and secured for future generations. Imagine that museums can create complete new revenue stream to rely less on government and private donations. World where artists can find patrons and collectors easily, and receive profits from their works even after the initial sale, for the lifetime. Imagine you can buy inaccessible icons of art like the Mona Lisa, or the Night Watch. World where you can always be sure that the art you are buying is original, and where you are paying one tenth of the fees and commissions you are paying now. This is the world we are building.

### 2.2 Principles and Orion Vault Platform outline

We are creating infrastructure that builds on **three principles**:

- **Digitization** - we believe that future will be digitized, and we have been observing this trend for the last decades. Good example is money, which firstly moved from gold to banknotes, then digital cards, and now to cryptocurrencies. This trend will continue, more and more things will be digitized, and in the end they will exist only in the digital space.
- **Sustainability** - we believe that any lasting business or social change needs to generate and distribute value, it needs to be self-sustaining and cannot be supported/donated from outside. Good example of that is reward system for miners in bitcoin.
- **Social Business Model** - lastly we believe that what we do is going to have a positive impact on society and civilisation we live in.

**Orion Vault Platform** builds on those principles, by combining three innovations:

- **Digital Asset Class** - the future of art is digitization, the challenge so far was how to make art unique and ownable in the digital world. Orion Vault Platform provides infrastructure that allows artists and museums to create a fully digital art pieces, we call them Digital Masterpieces. Those Digital Masterpieces are new Digital Asset Class, the future of art and art trading. For example the Louvre can create a digital Mona Lisa, the Louvre certifies that only one such Digital Masterpiece Mona Lisa will be ever created. The certificate and its ownership are coded on blockchain. Such digital Mona Lisa, separate from physical one (which stays and is still fully owned by the Louvre), can be sold or given as a thank you to a donor. Owner of the Digital

Masterpiece can then feature it at home (on special digital screen), make it available to public in free, virtual gallery, or trade it with investors. Another example of Digital Masterpiece creation involves working with contemporary artists who digitizes painting and creates one and only certificate on blockchain. Afterwards the artists destroys the physical painting, leaving only one unique Digital Masterpiece.

- **Marketplace** - to attract more investors and funds into the art world, OV Platform enables investors to trade Digital Art Asset Class faster and retaining more profits due to lower fees (up to 1/10 of they would pay now). Blockchain ownership tracking, ensures trusted and secure transactions, it also allows for anonymous direct investor to investor trades.
- **Value distribution coded in blockchain** - OV Platform benefits all parties of the art world, from artists, through institutions who popularize art and their audiences, to investors and patrons who provide means to make it possible. All fees are transparent and visible on blockchain, 96%+ of value goes to artists, museums and investors. Carry commission coded in blockchain ensures that artists and museums get percentage of all future sales (even after the initial sale), for the lifetime. Creating new revenue streams for museums and artists (as well as 'retirement plans' for artists).

### 3. Problem

#### 3.1 Investors challenges

There are numerous problems that investors face when trading art. The key challenges are around the **inaccessibility** of the art market and **lack of trust and transparency**.

We focus on resolving the challenges that affect three different types of investors:

- High Net Worth investors - those who buy multimillion dollar paintings, who often have assets exceeding billions of dollars.
- Occasional Investors - those who invest between \$25 000 and \$250 000 in art once in a while. They often participate in an art fund, buy paintings of rising artists or original prints of established masters.
- New investors - those who invest less than \$25 000 annually. For them, investing in art is more a passion than serious hobby. Often they 'bet' on young, up-coming and local talent. They lack experience and established relationships in the market.

#### 3.2 Inaccessibility of the art market

No matter what type of investor you are, you will find that access to the art market is extremely limited. The art space is very much a walled garden and, for most investors and art lovers, it is kept closed. Many deals are happening in secrecy, at exclusive showings and meetings. A handful of art experts and galleries are calling all the shots on what should be considered art and its value.

We have identified three main problems related to inaccessibility within the art market based on the types of investors outlined above:

### 3.2.1 High net worth investors

These may seem to be in a privileged position as they already have contacts, experience in the market and a track record of successful investments. However, they can struggle to acquire the art they are truly interested in - only 5% of all art in the world is being traded in any given year. Some masterpieces can be available for sale only once or twice in a century, and even then it is not clear how to acquire them and how to navigate the whole process. Many deals are made behind closed doors and even **experienced investors can be denied access**.

Those investors who are lucky enough to acquire the art they love usually don't see it too often as most expensive art pieces are stored in special, secure storage facilities such as freeports - the one at Geneva airport alone is rumored to house over \$100bn worth of art. Investors rarely feel secure about keeping their art pieces in their home and enjoying it on an everyday basis. Lastly, even the wealthiest investors can only dream of owning the Mona Lisa or The Night Watch as **most of the most desirable art pieces are not for sale**. They are in possession of museums, or foundations/galleries. For any art lover, traditional reproductions are the only way to enjoy art on everyday basis but, from an investment perspective, those reproductions are of low value.

### 3.2.2 Occasional investors

These face low liquidity and high risk challenges. Access to fine art is restricted by virtue of the **high prices of very well-known artworks, the requirement for high upfront investment with arts funds** and a **lack of relationships on the market**. Occasional investors have little room to maneuver - usually they join an art fund or invest in rising artists, which puts their investments at higher risk. Art funds require a significant amount of capital (usually \$250 000 - \$1 000 000), locking in money for 5+ years with returns that can often be impaired by high fees. Buying rising artists is risky in itself. Even if occasional investors can afford them, they are likely to be **refused the sale**, as galleries prefer to sell their best artists to established, wealthy investors. They do so because they want to favor regular buyers, but also because they want to attach a very well-known investor/collector's name to the sale, to further build the prestige of the new artist.

### 3.2.3 New investors

These investors find it hard to get into art space and are easily rejected. It is difficult for newcomers to **know where to start and avoid being taken advantage of as the art market lacks clear structure**. Most investors that enter the market have to navigate and educate themselves throughout the whole process. There are many challenges that investors face, from finding the right galleries and artists, to experts who can support them in making the right investment decision. They have less capital for investment, so their **options are very limited**.

### 3.3 Lack of transparency and trust

Opacity is the second biggest problem on the art market. There's no transparency on either prices or history of ownership (provenance). Without clear information and public records most trades rely on personal trust. The art market is flooded with forgeries that results in millions of dollars of losses for investors that put their reputation at risk (if they resell an art piece that is later discovered to be fake).

#### 3.3.1 Price transparency

Lack of price transparency is causing investors to achieve much lower profit margins and return on investment multiples. There are **numerous intermediaries and middlemen** in the art market, both on the sell and buy side. **Profits are limited by high fees and additional costs** like sellers fees, buyer premiums, insurance, storage, transportation, authentication or consulting advice (easily totaling to 20%-50% of the total price). High fees are eating up profits margins, stalling trading and making art an even more illiquid asset. Prices are often kept secret and, even when publicized, they are rarely accurate. This state of the market is different to almost all other widely-traded investments classes, where one can easily track prices such as bonds, stocks, commodities or real estate.

#### 3.3.2 Ownership and its history (provenance)

Ownership history is notoriously hard to prove in the offline world. The current **system relies on personal trust which leads to many scams**, where even the biggest collectors and galleries can be fooled by forged art. This situation makes people hesitant to invest in art and so investors trade less than they could. Moreover it drives fees up, and reduces profits, as investors need to rely on numerous middlemen to reassure them about the provenance of any art piece.

## 4. Solution

### 4.1 Open access to the art market for investors across the globe

We are radically improving access to the art market. We offer new investment opportunities for investors around the world, depending on their individual needs, pocket-size and preferences. There are three new ways in which investors will be able to access the decentralized art market. Each is tailored to a slightly different audience, beginning with high net worth investors, then the occasional ones and finally newcomers:



#### 4.1.1 Create new digital asset class in the art world - a unique, digital masterpiece based on the most famous art pieces.

By using specialist [photographic](#) equipment (gigapixel camera with laser and sonar), and partnering with museums and artists, we will create a state of the art digital image. **There will be only 1 unique digital image per art piece.** Together with artists, curators and experts we will refine it as close to the original as possible. Then, it will be **certified and signed by the museum/artist/curator** with the commitment that only one will be ever produced. This digital image is then sold at auction, with ownership tracked and transferred through the blockchain on our platform. The owner of such a piece is able to own the Mona Lisa and present it on a screen at home. Moreover, the owner has safe and comfortable access to top-quality artwork and, if he chooses, can appear on blockchain repository as the legal owner, building authority and getting recognition from like-minded collectors. This is the only way to own some of the most famous masterpieces in the world. Investors will be able to trade those digital masterpieces between themselves directly and discretely with low fees, and clear ownership tracked on blockchain.

#### 4.1.2 Tokenizing art - allowing investors to own a percentage of an artwork

When artwork is tokenized, **investors can easily trade percentage shares of ownership of the given artwork.** For example an investor can own a 5% share in a famous Picasso or Da Vinci digital masterpiece painting. The ownership can be tracked, and the investor can later sell their share of the painting. This solution gives access to mid-sized, occasional investors to participate in the trading of the most valuable art pieces. Not everyone can buy an original Picasso work, but many will be able to invest few thousand dollars to own a percentage of it. Even \$10 000 or \$20 000 can be enough to own a small percentage of a multimillion dollar masterpiece. This allows for **more liquid investment** compared to other options available for this level of capital.

Tokenization gives **access to the fine art market** that occasional investors could not otherwise access. At the moment, if investors put their money into an individual artwork, it can take years before they can sell it at a profit. The same is true for art funds that can take years to resolve with uncertain returns. With tokenized art investors can trade parts of their portfolio much faster. In tokenized investment the shares of the painting can be traded at any time; there is no need to wait for the whole fund to be liquidated. This opens new opportunities for investors by giving more flexibility as to when and at what price they can trade. Moreover, tokenization of art is a good opportunity for investors to diversify their portfolio. For example instead of investing in a single artwork, they might split the investment in 5% allocations across 20 different artworks.

#### 4.1.3 Patronage with investment options

For some investors it is difficult to put aside \$10 000 for even a small tokenized investment. Our mission is to open access to the art world for everyone, therefore we are also creating a new patronage model that allows investors to support artists and invest in the industry with smaller amounts of money. With this model **everyone will be able to become a patron** and

support their favorite artists with small donations. Even more importantly **such patrons will be able to become investors, earn a return on their contributions.**

How the patronage works:

- A patron identifies an interesting artist/s that need support to complete their work.
- The patron agrees with the artist on the level of support (e.g. 1000 OV Tokens a month = approximately \$300) in exchange for 15% share of profits from sales of their artworks in the future.
- As the supported artist starts to become recognized for their talent and begins to sell their work (via our platform), the patron receives a profit share e.g. if the artist sells 5 artworks for total amount of 1 200 000 OV Tokens, the patron receives 180 000 OV Tokens (= at current price approximately \$60 000).
- Tokens can be used to invest in more artists and/or to buy the digital masterpiece or tokenized artworks for the investor's portfolio.

## 4.2 Trusted and transparent blockchain based platform

Blockchain gives us opportunity to not only offer access to new investment opportunities in the art market, but also to trade with much greater trust, transparency and scale than any other platform so far. There are two main benefits that separate our platform from all currently available online and offline solutions:

### 4.2.1 Ownership on blockchain

Our platform allows users to see who owns the rights to a specific art piece. The ownership can be anonymous, or public if the owner chooses so. **Tracking of ownership on the blockchain creates a history of when and at what price deals were made, in a fully transparent way.** As the ownership is tracked on blockchain there is no need for multiple intermediaries to connect investors and verify ownership. **Investors are able to deal directly between themselves, speeding up the whole process and retaining more profit.** Here are a few examples of how ownership can be tracked for different art investments:

- Let's assume we want to track the ownership of the digital masterpiece, like the digital Mona Lisa. We can see when the certificate of ownership was created, by whom (in this case by the Louvre - and who personally signed it off), with detailed information about the piece like dimensions, imperfections, markings etc. Once the first sale is completed, the certificate lists the originator (Louvre) of the artwork as well as the new owner and the price that it was purchased for. The blockchain certificate keeps track of all price and ownership history.
- Tokenized artwork can be owned by multiple investors each holding a percentage of the artwork. The main difference in tracking ownership in tokenized art is that the certificate of ownership will have all current owners (addresses associated with them) together with the information on the current percentage that each of them holds. In this case we will also track the history of price, trades and ownership.
- Finally, there is ownership of a percentage of a physical artwork, e.g. a share in a physical Picasso painting that is tokenized. In this case the artwork is stored securely in a fine art storage facilities (e.g. freeport at Geneva airport), while on the blockchain

we track who owns what percentage. Investors can trade parts of their ownership on blockchain while we track how this changes over time. It sounds simple, but it will be a big breakthrough in the art world.

In all cases trust is based on transparent data existing on the blockchain, not on multiple intermediaries. Implementation of blockchain ownership and provenance is seamless with no extra steps for investors. All transactions on our platform use blockchain provenance automatically. This makes Orion Vault the most trusted and transparent provenance tracking platform in art history.

#### 4.2.2. 10x lower fees

Thanks to blockchain ownership tracking, there is no need for 3rd party verification. **Elimination of intermediaries increases the value for investors** on both sides of the deal. Sellers are able to keep more money from the sale, while buyers pay lower fees. The whole transaction process is faster and smoother as fewer people need to be involved and most touchpoints are automated. Consequently, Orion Vault is able to operate on up to 10x lower margins than current solutions. **All fees are coded in smart contracts, making them fully transparent.** Investors can be confident that they are getting the best deal and that they are treated fairly.

### 4.3 Why this will work

To make the platform work there needs to be motivation on both the demand and supply sides. Below we set out briefly why we feel different sides would want to engage in the creation and usage of the new digital masterpieces, tokenization of art and new patronage-investment models.

#### 4.3.1 Creating new digital asset class - digital masterpieces

Art investors have very limited opportunity to invest. The most prestigious art pieces are not on the open market, but kept in vaults and behind museum walls. At the same time museums are struggling financially and looking to raise funds for renovations and operations (e.g. the restoration of Rijksmuseum in Amsterdam cost 375 000 000 euro). There is huge incentive for all sides to get involved and support the promotion of a platform that opens the market and creates new opportunities for investors and museums around the globe. Investors can acquire digital masterpieces which would be impossible to obtain otherwise, and museums and foundations can use the proceeds to help with their operations (while still retaining possession of the physical masterpieces).

#### 4.3.2 Tokenizing art

Investors will welcome the ability to invest in more diversified and liquid art assets. On an emotional level there is pride and satisfaction in owning (even a small piece) a famous artwork. At the same time, collectors who own art, are looking for new ways to raise money to expand their collections and fund other investments. Considering that the freeport at Geneva airport alone is rumored to store over \$100bn, there is huge part of the art market

that could be tokenized and put to work for both investors and collectors without degrading supply.

#### 4.3.3 Art patronage with investment opportunities open to wide audience

While there are more artists and investors than ever in human history there is still no solution that effectively connects them on a wide scale. Investors who would not have any practical option to access the art investment market will be able to put their money to work. At the same time, artists who need help to start their projects will be able to find new sources of funding. The OV platform built on blockchain and using smart contracts creates a state of digital art where all rights are kept safely and transparently.

#### 4.3.4 Faster, cheaper and more transparent marketplace

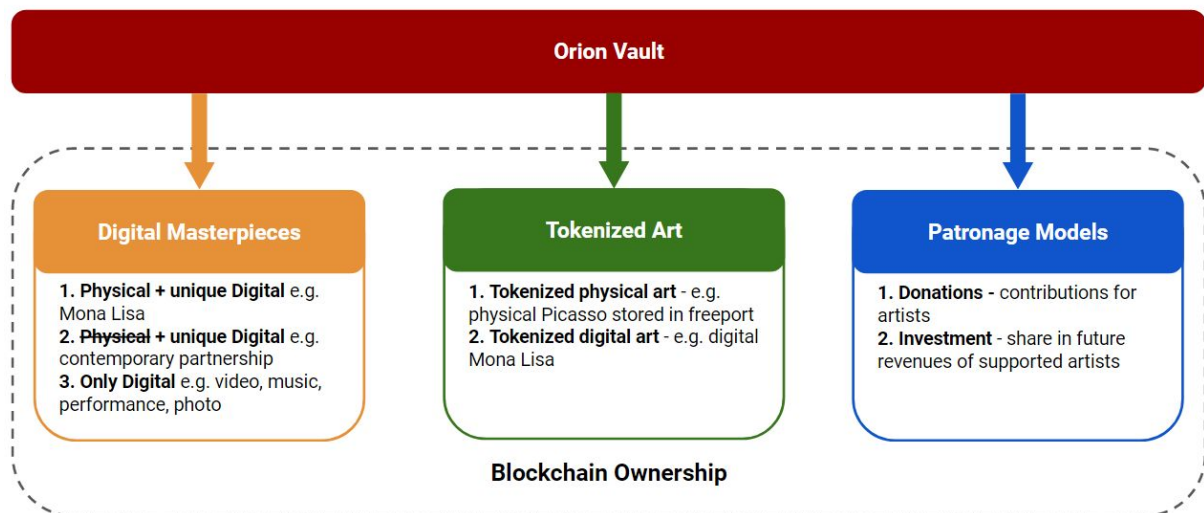
Currently the high number of intermediaries, eat into profits on both the seller and buyer sides. Investors and collectors are tired of slow and manual processes that involve multiple parties and middlemen. Unfortunately, online marketplaces didn't solve this problem, although they are the only growing segment of the art business. In the current market, they are just another middleman between buyers and galleries, creating a lot of manual interactions (phone calls, email exchanges) and leaving buyers vulnerable to fake art. Our platform offers blockchain tracking of ownership, improving trust and allowing investors to deal directly between themselves, saving time and money.

## 5. Specific use cases

Firstly, we will look at digital masterpieces and consider three different use cases (1) a digital masterpiece is created on the base of physical art and both coexist (e.g. the digital Mona Lisa on Blockchain and physical one in Louvre) (2) a digital masterpiece is created on the base of physical art, the physical artwork is then destroyed and the only digital masterpiece on blockchain exists (e.g. contemporary artists) (3) an art piece only exists in digital format (e.g. performance video, or ipad drawing).

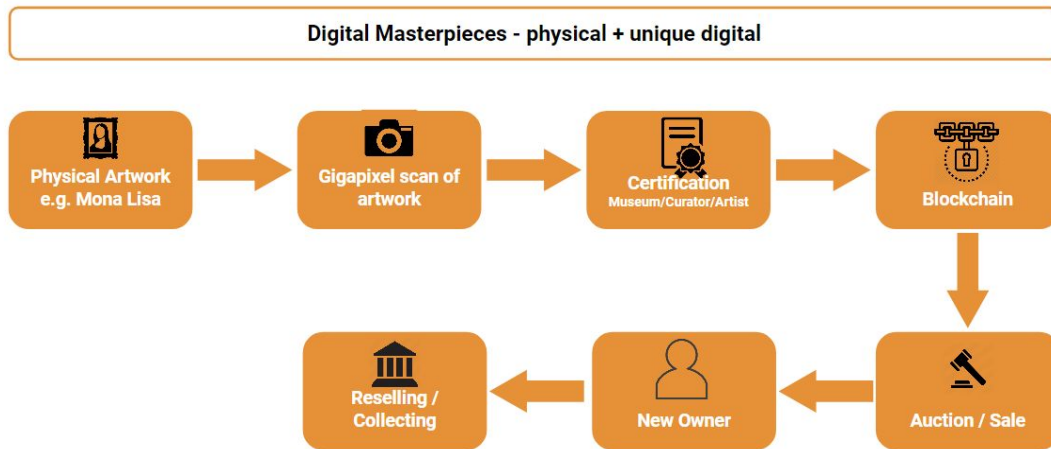
Secondly we will look at tokenization of art with two use case examples (1) tokenization of physical artwork from private collection (e.g. Picasso painting stored in freeport) (2) tokenization of digital masterpiece, e.g. the digital Mona Lisa whose owner has decided to tokenize it.

Finally, we will look at the patronage model, with two main use cases (1) Patronage - donations where patrons support artists with smaller amount of tokens (2) Patronage - investment where patrons support artists in exchange for participation in future profits arising from the sale of the artist's works.

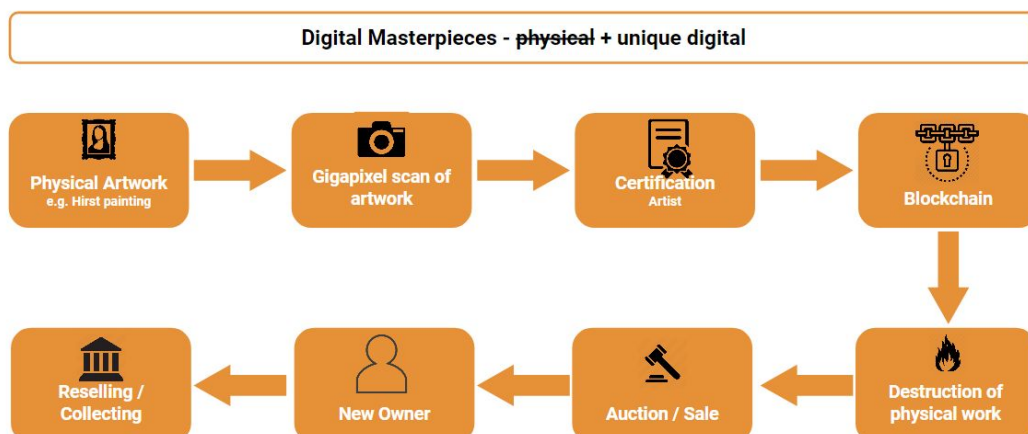


## 5.1 Digital Masterpieces

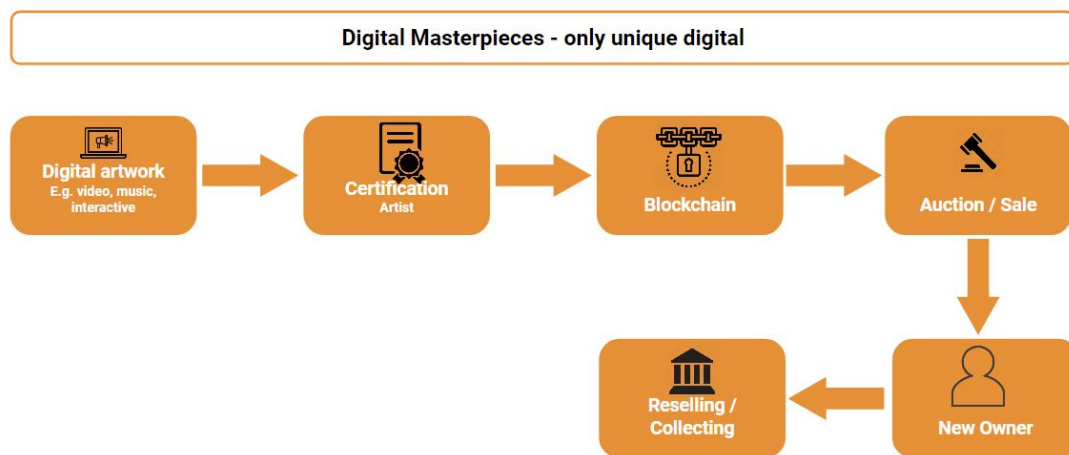
**5.1.1 The first use case for digital masterpieces is to allow the purchase of a unique blockchain-coded digital version of the most famous physical artworks that cannot be purchased otherwise.** These will be genuine masterpieces such as the Mona Lisa, Night Watch etc, that are stored in museums and will never be publicly available for sale. We want to partner with museums, galleries and experts in capturing art with gigapixel camera to create ultra high-quality digital scans. Then together with museum experts and curators we will refine the image to keep it as close to physical piece as possible. Museum experts, curators and all involved in the process certify that only one such copy will be ever created. A certificate of ownership is created and recorded on the blockchain, including all details of both the physical and digital masterpiece. This creates a trackable and ownable version of the digital masterpiece and a detailed database of famous artworks including information on dimensions, metrics and even their imperfections. The digital masterpiece will be available for auction and after sale there will be the first new owner. The owner will be able to directly sell the digital masterpiece to another investor (through the platform), or choose to keep it and start building their digital masterpieces collection. Finally, the owner will be able to tokenize it and sell smaller shares of ownership (more on that in the tokenized art use cases).



5.1.2 The second use case is to partner with famous contemporary artists to digitize, code on blockchain and certify their artworks. We want to **create a digital state of art and allow contemporary artists to move all their work into digital world**. After the digital-blockchain version is created (again only one will ever be available) the **original physical piece will be destroyed**. Therefore only the , digital-blockchain version will ever exist. This can seem a radical approach, however there are a number of reasons why this can be interesting for both investors and artists. First, the initial digital masterpieces created in this way will be first of their kind, possibly starting a new artistic trend and attracting a lot of publicity (especially when done in partnership with well-known artists). This has potential to dramatically increase their value and desirability. The second reason is the practicality of it, digital masterpieces have much higher chance of being preserved for centuries, as they are not as fragile as the physical ones. Digital masterpieces are also easier to trade and easier to enjoy, as they require no special insurance, storage conditions and transportation. Finally, this option is great for preserving and commercializing physical, street art that is notoriously hard to be ownable and tradeable in the offline world. So far it has been extremely difficult for street artists to monetize their work as it is often destroyed soon after they create it.

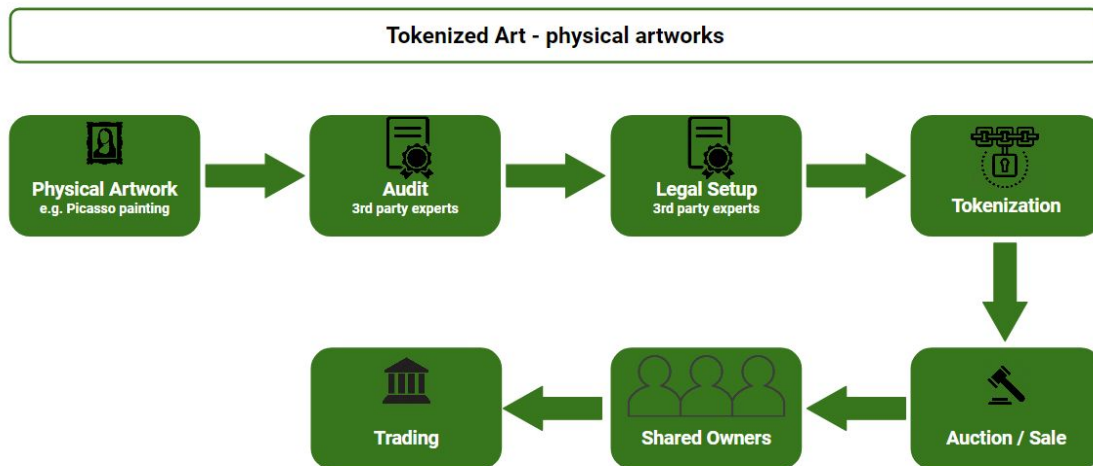


**5.1.3 The third use case is to allow artists who create only in digital space** (such as video, music, interactive, performance) to create unique digital art pieces ownable on the blockchain. This unlocks new potential for digital art, which has struggled with ways to capture the value of their unique creations. The process is simpler as there is no need to capture and digitize the physical art. Artists who are registered and verified on the platform are able to create the ownable digital certificates for their art themselves. This can open the art market to much wider audience both in terms of investors as well as artists. On one side of the spectrum we can monetize ephemeral fine art (e.g. performances done by Marina Abramovic), while on the other side allow for commercialization of contemporary entertainment (e.g. famous YouTube artists can offer for sale the one and only certified first recording of his first ever YouTube video).

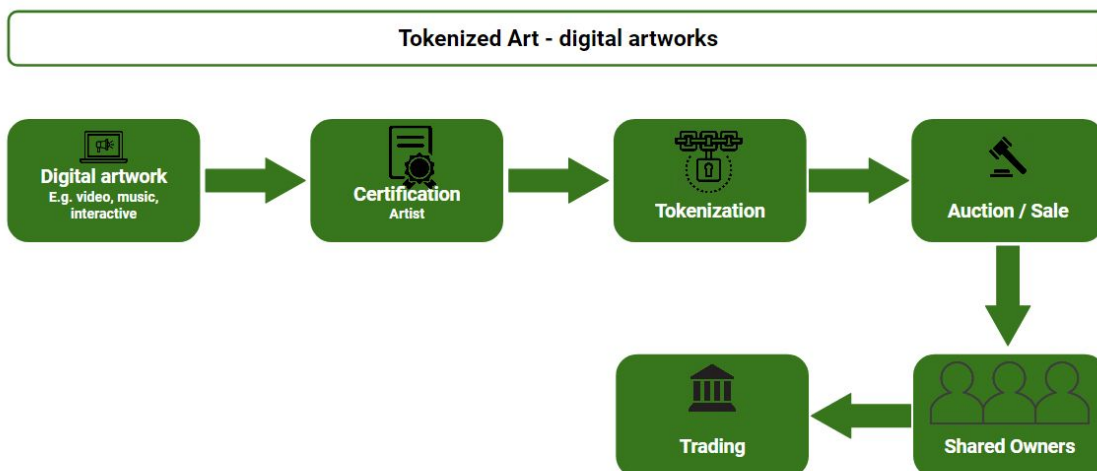


## 5.2 Tokenized Art

**5.2.1 The first use case for tokenization of art is to create an easy, trusted and transparent way to own a share of physical artwork.** Most fine art pieces are stored in special facilities, similar to like gold that is kept in a vault. Current owners of physical artworks, whether private or institutional investors can tokenize them and sell partial ownership rights. All physical artworks before being tokenized on our platform go through an independent audit, to confirm their authenticity, provenance, storage condition and insurance value. Due to the physical nature of the tokenized asset, security and legal structure is of key importance. After an audit, investors are able to buy and trade the percentage ownership of those artworks on our platform. This provides them with more liquid and secure investment than traditional art funds. At the same time the original owners put their collection to work, realizing partial profits and using them for other investments (like expanding their collection).



**5.2.2 The second use case within tokenization is shared ownership of digital masterpieces,** like the digital Mona Lisa, contemporary artist's artwork, or digital performance video. In this case the process is much easier than in tokenization of the physical artwork, since there is no need for auditing and secure storage of physical art. Ownership of digital artwork is tracked on our platform, as in the example of digital masterpieces. The main difference to the digital masterpieces use case is that instead of one owner, who owns the artwork fully, in the tokenization model there are multiple owners, each having a percentage. Investors are able to easily trade their percentages directly between each other. This also creates new investment opportunities where one investor buys and fully owns the digital masterpiece and can later tokenize it and sell it to a wider group.

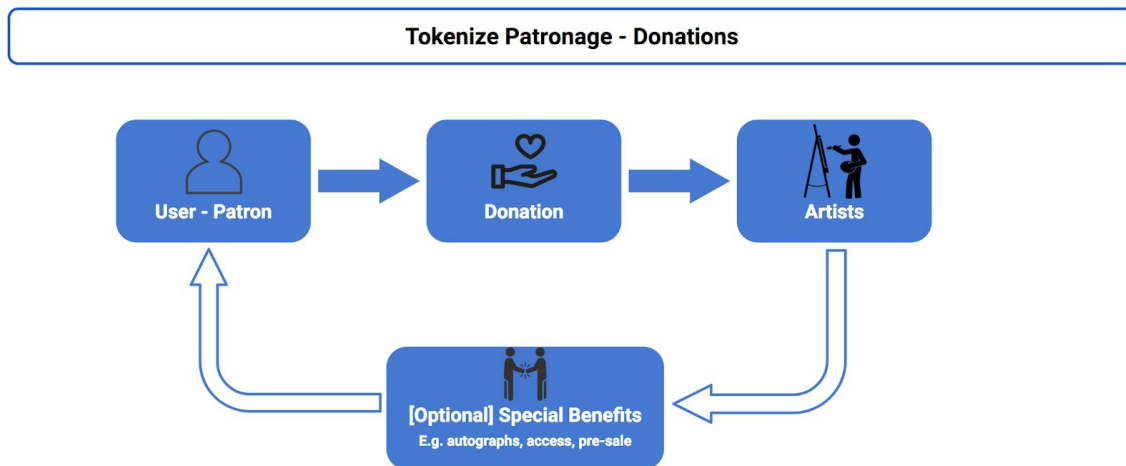


## 5.3 Art Patronage

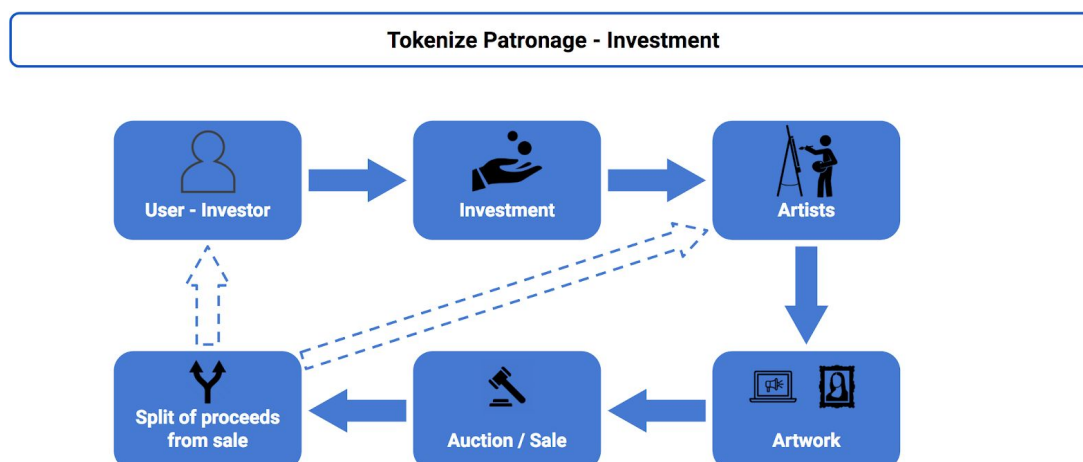
**5.3.1 The first use case for art patronage is donations.** Art aficionados and supporters are able to help new artists develop their talent. We want to make sure that artists benefit fully from donations, which is why the fees are up to 10x lower than current solutions.



Investors can support artists as a form of **charity contribution**, because they want to help or they enjoy an artist's work and want to build future relationships. On the other hand, investors can decide to make donations in return for **non-monetary rewards** like autographs, vlogs showing how they work, Q&As, events/meetups or pre-sale options. This allows both investors and artists to try the platform with very low exposure. It also brings a lot of new participants who in the future can become bigger and more experienced investors.



**5.3.2 The second use case for art patronage is supporting artists in exchange for a share of profits from future sales** done by the artists through our platform (the percentage to be agreed between investor and artist). This gives opportunity for even new investors to participate and benefit from the art market with a relatively modest commitment. This is also a great way for investors to build relationships with artists and potentially establish long term cooperation. At the same time artists get more funds to help them create and promote their work. The whole process is smooth: artists receive their funds automatically each month, and once they sell their artworks through the platform, investors instantly get their share. As all the data is being aggregated on the platform, investors are able to find the most suitable and promising artists, while artists get exposure to the patrons most likely to support them. Moreover, the platform helps artists (and investors) to properly price their work, taking into the account artists' popularity, art trends, audience and history of similar investments/deals.



## 6. Orion Vault Platform

The main objective of the Orion Vault Platform is to create a new Digital Asset Class, by bridging the physical and digital world. OV's role is also to ensure the best experience for users and allow for smooth and secure interactions with Ethereum blockchain.

- **Open for everyone**, so everyone can explore the platform and view artworks, prices, trends, artists profiles etc. Owners of Digital Masterpieces may choose to allow other OV users to view and download the artworks for educational purposes in the OV virtual gallery - this is similar to how art collectors choose to lend/feature their art collections in the physical museums and galleries nowadays. **Owners can choose to stay anonymous or have their name displayed on Digital Masterpieces which they own.** This is great way for investors and collectors to share their collections with the world, preserve and promote culture.
- Allows investors to trade artworks in a fraud-free and transparent way on blockchain. Only OV Users (i.e. verified users) can exercise trade activities and all artworks have clear chain of ownership so investor can track who introduced the artwork to the platform in the first place (mostly Museums and Artists themselves). On top **OV provides proper audit, background and provenance clearing** to ensure only the trusted artworks are added to the platform.
- Transparent. All activities exercised in regards to ownership happen on blockchain (OV users can choose to remain anonymous to the public, or disclose their name). **All fees are transparent and visible on blockchain.** As with every technology based on the Ethereum blockchain, the data is immutable so no one can amend or remove a ledger entry. It also uses decentralized ledger. There are tens of thousands of copies of the ledger held by anonymous users of Ethereum worldwide so no one can replace the authentic ledger.

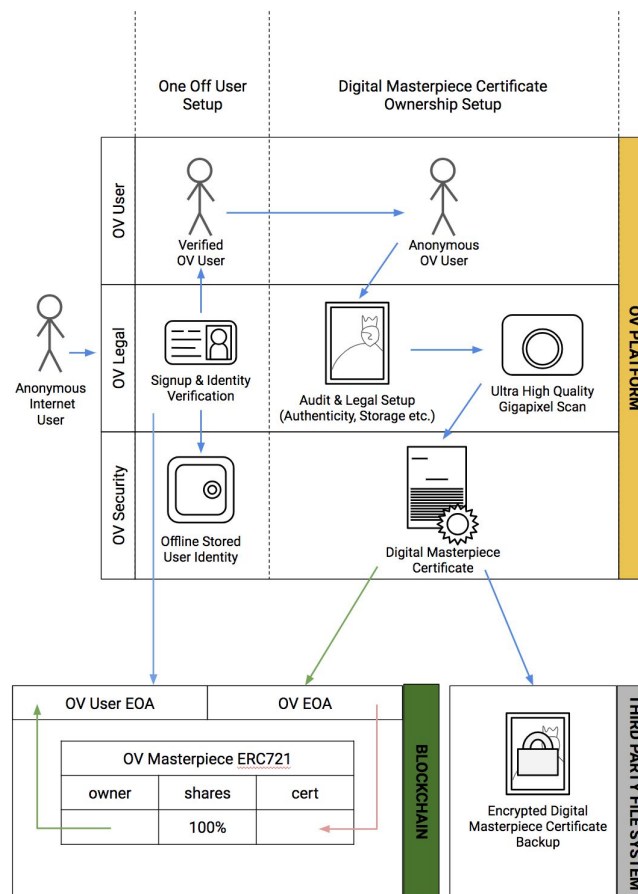
In the following paragraphs we describe key interactions on the platform and blockchain for the main uses cases, as well as direction for UX/front-end development.

### 6.1 User and Digital Masterpiece setup

Orion Vault Platform is open to everyone for sign up.

- Users that want to trade, or artists/museums who want to introduce their artworks, are being **verified** as the first step.
- Upon successful verification an **anonymous account** of OV User is created and associated with an EOA (External Owned Account - so called private account/address) on Ethereum Blockchain. OV User has a choice to remain anonymous within OV Platform while their identity is securely stored either offline by OV Platform or a specialized third party.
- OV User, who initially will be one of the biggest museums or known contemporary artists can submit an **artwork certification request**. OV Platform along with third parties exercise an **audit** to verify the artwork's authenticity, provenance and current storage conditions.

- Upon a successful audit a Digital Masterpiece in ultra high quality is constructed and available to the OV User along with a public **Digital Masterpiece Certificate**. The certificate is ERC721 token, governed by Smart Contract. The certificate is issued to blockchain by OV and assigned to OV User's EOA to publicly designate ownership status.
- The encrypted Digital Masterpiece is **stored on OV Platform and 3rd party distributed file systems**: either on traditional cloud servers (e.g. Google Cloud, Amazon Web Services) and/or IPFS (e.g. Filecoin).

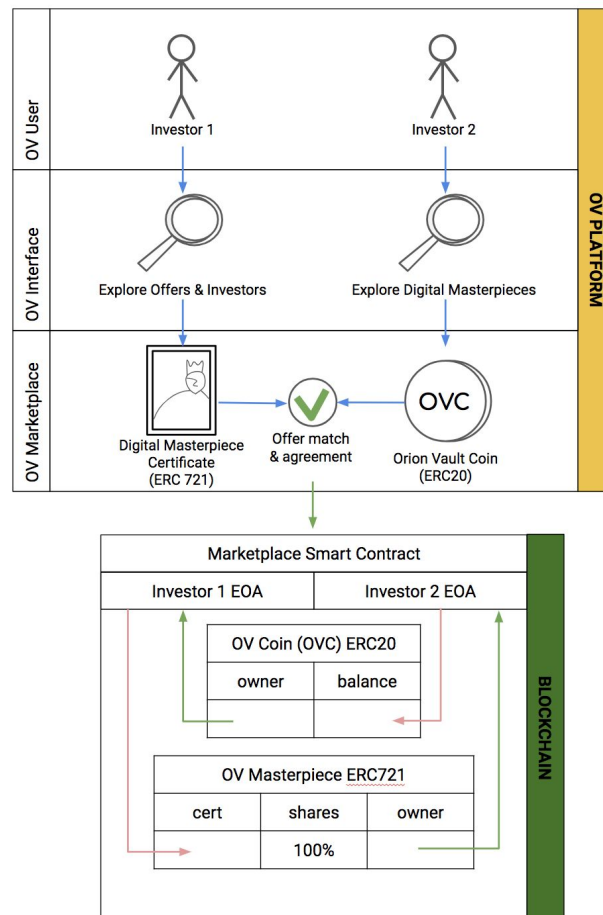


## 6.2 Trading setup

Orion Vault Platform aims to provide secure and fast trading environment for Digital Art Assets. Investors are able to trade directly between themselves, which speed up trades, allow for more participants to invest - hence increasing liquidity, and offer lower fees, hence retaining more profits for investors. OV offers multiple trade options. From fix priced trading to various auctions models. It is up to investors to choose their most preferred ways of trading. Below we look at simplified fix price trade:

- Investor 1 organizes assets using OV User Interface to allow others to find them on the Orion Vault marketplace. Another OV User (Investor 2) explores Digital Masterpieces available for sell. OV recommends a price for trade, using our **pricing algorithm** that constantly analyses new trades on OV platform as well as crawls external databases to estimate the current market value of your assets. The algorithm applies also to sellers, buyers and artists to advice them on the market price for their deals.

- When Investor 2 finds an interesting Digital Masterpiece (ERC721) she/he extends an offer (agrees to buy at the price stated by Investor 1) on OV Marketplace. Investors reach agreement and a Trade Smart Contract is signed by both and send to blockchain for execution.
- Investor 1's address (EOA) receives 1 000 000 OVC (ERC20) and Investor 2 acquires a Digital Masterpiece Certificate (ERC721) i.e the DMC (ERC721) is assigned to OV User's EOA to publicly designate ownership status.



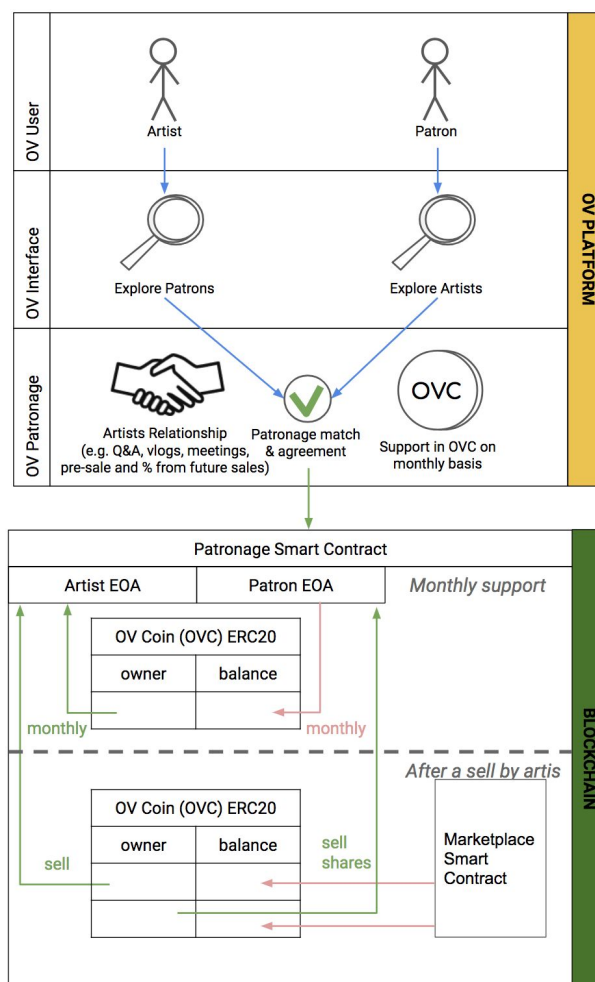
### 6.3 Patronage setup

Patronage is aimed to provide open art investing for millions of people. Investors with even few hundred dollars (or equivalent in Orion Valut Coin - OVC) are able to invest in young artists and potentially get share in the profits that come from sale of their art. At the same time artists gain a new way in which they can be supported, and receive basic funding to pay for materials and bills as they create a new collection. Both Patrons and Artists can build long lasting relationships. Here how the simple setup can look like:

- Artist and Patron as OV Users explore OV platform searching for patronage opportunities. When the match is made Patron and Artists sign a Patronage Smart Contract and send to blockchain for execution.
- The patronage can have multiple benefits which are decided by the Artist and the Patron based on a level of support. For example for small support, equivalent of 5\$-50\$ per month Artists might offer a unique view into their work, showing pictures

and updates from work, scheduling virtual Q&As or real life meeting, and so on. For a more substantial support e.g. 200\$+ per month Artists might offer a percentage of profits generated from the future sell of their collections.

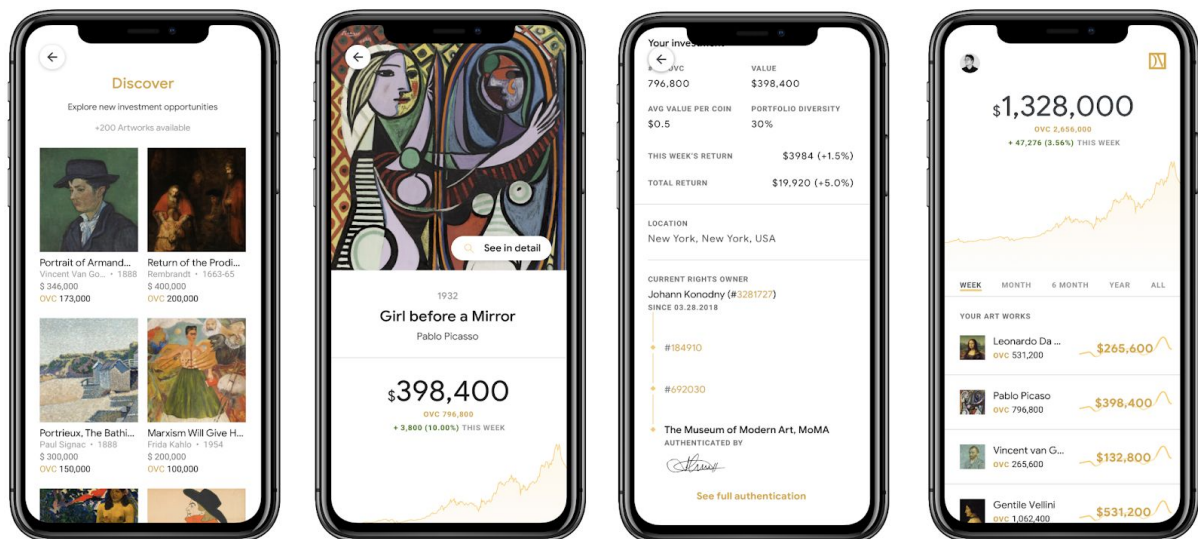
- For instance the Patron commits to support the Artist donating 500 OVC (ERC 20) on monthly basis for the next 12 months. The artist commits to share 10% of sell profits with the Patron. The Patronage Smart Contract triggers automatically once every month transferring the donation to the artist. Upon every trade the Trade Smart Contract on blockchain checks for existing Patronage Contracts in place related to a seller. If a seller is in a Patronage relationship then shares agreed in the Patronage Contract are automatically transferred to a Patron. In case the monthly donation doesn't arrive on time the Patronage Smart Contract loses its power and doesn't apply to either Artist or Patron anymore.



## 6.4 Product UX

Orion Vault platform lets users discover new investment opportunities in an easy and fast way. Our **explore algorithm** optimizes the experience based on the types of artists, assets and source of artworks (e.g. museums) that you prefer to invest. Detailed views let you enjoy

the artwork as well as get key information about its title, artist, owner (if ownership was set to be disclosed), initial certification (e.g. artists/museums/curators/art experts), chain of ownership and financial performance. Your portfolio view lets you track the performance of artworks in possession. This is done by our **pricing algorithm** that constantly analyses new trades on OV platform as well as crawls the external databases to estimate the current market value of your assets. The algorithm applies also to sellers, buyers and artists to advice them on the market price for their deals. The whole experience is clean and fast, to enable users to make best investment decisions and enjoy their art.



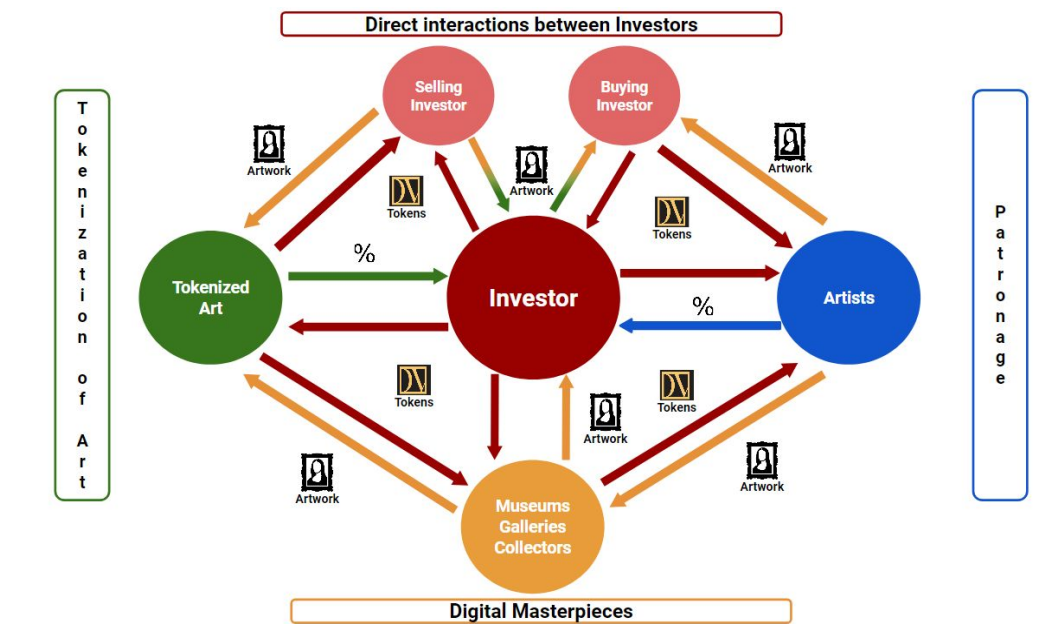
## 7. Tokens economy

Tokens are essential to create a healthy and growing investment ecosystem, they will lower transaction fees, speed up interactions between parties and automatically code the art piece ownership on blockchain.

### 7.1 Key interaction between parties

- **Museums, galleries and artists** are able to use OV tokens to digitize the unique art pieces and code ownership on blockchain. Initially we will provide the service for free to get biggest museums and artists to cooperate with us. In the future as more and more museums, galleries and artists join our platform and code ownership of the art pieces to the blockchain, they will use OV tokens to benefit from the service. Museums will be able to use tokens to fund operations and renovations on much greater scale than ever before.
- **Investors** are able to buy the unique digital, blockchain encrypted, art pieces using the OV tokens. They can also buy percentage ownership in tokenized artworks. Investors can trade directly with each other, as well as with artists with no need for 3rd party.
- **Patrons and Investors** are able to support and invest in artists in the following ways:

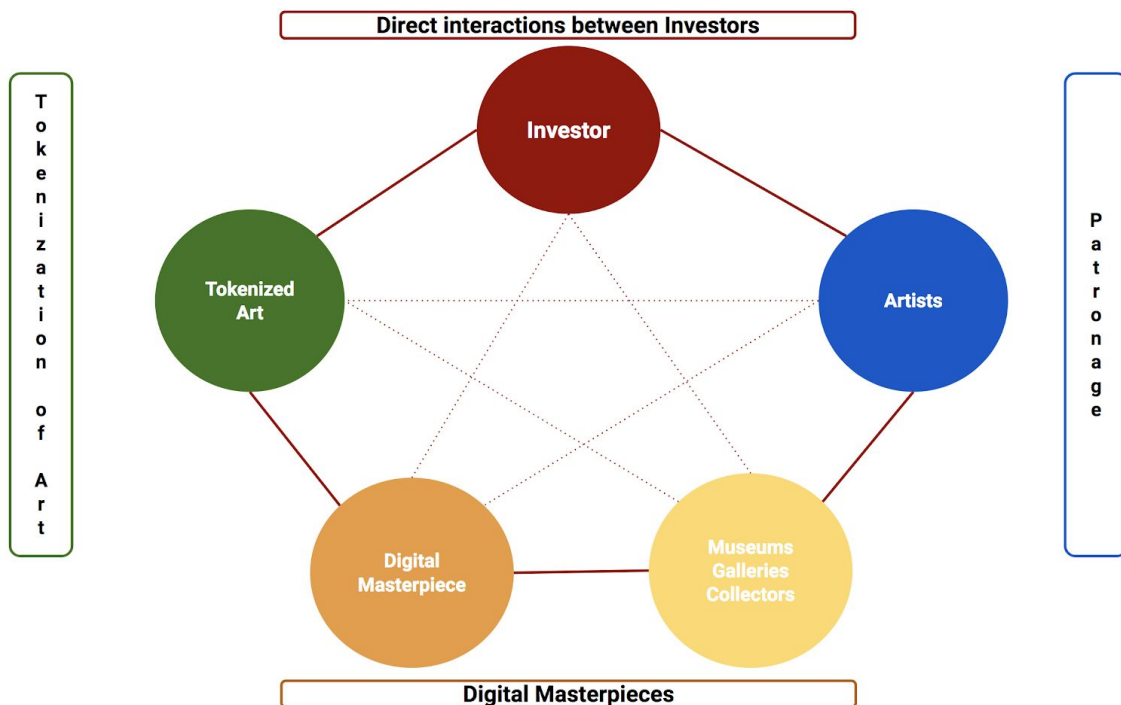
- **Charity contribution** - support artists of their choice without investment benefits.
- **Rewards** - support artists and get unique access to artists work and life (updates from work, events/meetups, pre-sales, Q&As etc)
- **Profit share** - for significant support over time, investors can participate in profits generated by artist's work. Percentage split and duration of the agreement will be specified by investor and artists and coded in the smart contract, making any settlements automatic.
- **Artists** can use tokens to get support from community experts - for example more experienced artists, art judges, promoters. Tokens will be also used to enter into art competitions and promotions organized by OV and community. This will further help artists improve and promote their work.



## 7.2 Simplified flow of the token economy

Investors inject initial funds into the system, to buy and own unique digital masterpieces and tokenized art. This in turn enables and motivates museums and collectors to create and sell more works through the platform. Consequently, the platform opens up more unique investment opportunities and attracts even more investors, supporting even more artists, trading more works and driving the value of the whole economy higher. As the number and value of the artworks available for trade increases, OV becomes the platform of choice due to offering not only unique investment opportunities but also transparent and low fees, as well as trusted ownership tracking.





## 8. Business model

The main objective of Orion Vault is to build a healthy and growing investment ecosystem. Our goal is to limit the fees, offer unique functionalities and open the art market to a new digital era, where everyone can participate and benefit. There are two main markets in which we are operating: art and art patronage. Both markets have strong growth projections, as the number of wealthy people in the next 5 years will increase by 43% (from 2.5m to 3.6m people - [KnightFrank report](#)), this will have a positive impact on luxury, art and charity markets - all directly connected with our business.

### 8.1 Art Market

The current estimated size of the current, **art market is between \$40bn - \$60bn** ([artnet](#), [TEFAF](#), [Art Basel](#)). Within that, the **online art market grew by 15%** in 2017 from \$3.75bn in 2016 ([Hiscox report](#)). Estimates for 2018 are in the range of \$4bn-\$5bn. We believe there is huge potential to not only capture the market share, but more importantly, bring new people and investors into it. Improvements in transparency and trust should help to generate incremental sales and create new investment opportunities. Currently most collectors cite fear of buying fake art as one of the biggest determinants of investing in art. Our **pragmatic estimate is to capture 2.5% of that market and charge 5% fee on transactions**, which is 4x-10x lower than current fees and extra charges of 20%-50% (buyers fee, hidden commissions, shipping, storage, security, insurance).

### 8.2 Art Patronage

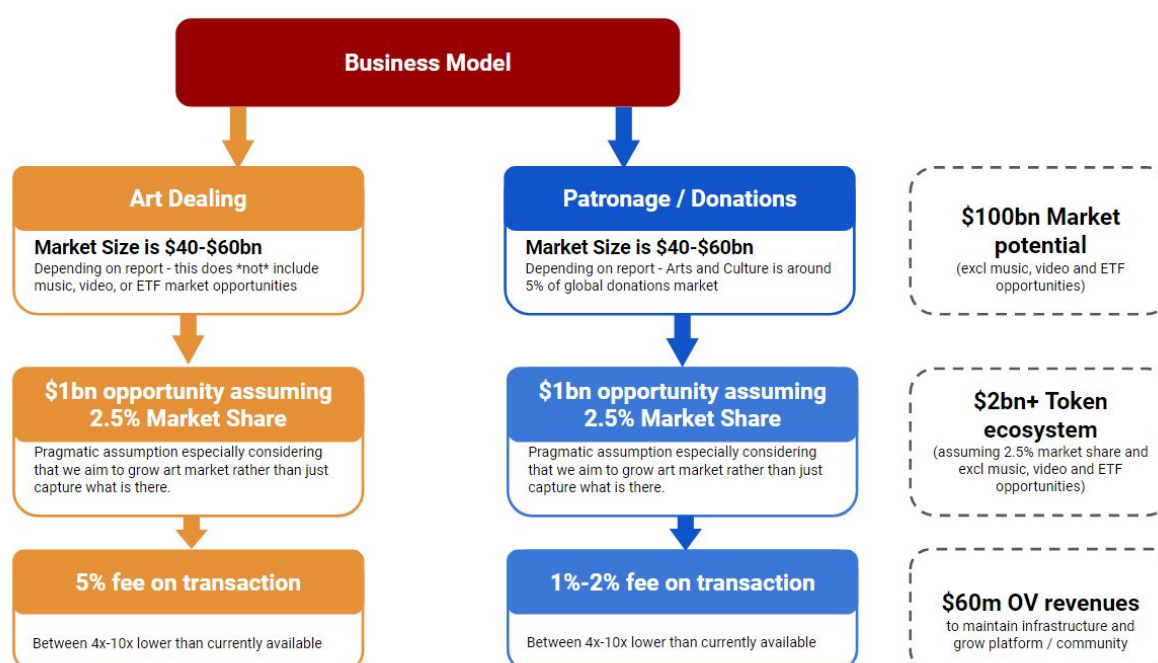
Charitable donations, in the US alone are worth \$390bn from which 5% or c\$29bn is for art and culture ([Giving USA report](#)). Global estimation could put **charitable art donations between \$40bn - \$60bn** in 2016. There has been growth in charitable donations almost



every year for the past 30 years. Our goal is to **capture 2.5% of that market**. We charge the **minimum fee of 1%-2%** to maintain the platform and allow artists and community to benefit as much as possible from every token spent. OV fee for art patronage is 4x to 10x lower than in similar services, who charge 8%-10% ([Kickstarter](#), [Patreon](#), [GoFundMe](#) - 5% platform fee + 3%-5% processing fee).

### 8.3 Token economy potential - \$2bn

Taking the above assumptions of **combined \$100bn of market size** (as of 2016) and **2.5% of market shares**, **OV token economy should be around \$2bn**, and OV should have \$60m revenues after 3-4 years to maintain and grow platform and community. We aim to reach positive cash flow the first 18-24 months of operation, after which we will rely on self funding for further growth. There is potential and room for growth for OV platform. Over time we aim to capture a higher market share than a current target of 2.5% as well as grow the overall size of the market. At 10% market share, we would be one of the biggest players in the art market and art patronage, bringing the OV token economy to approximately \$8bn and OV revenues to \$240m.

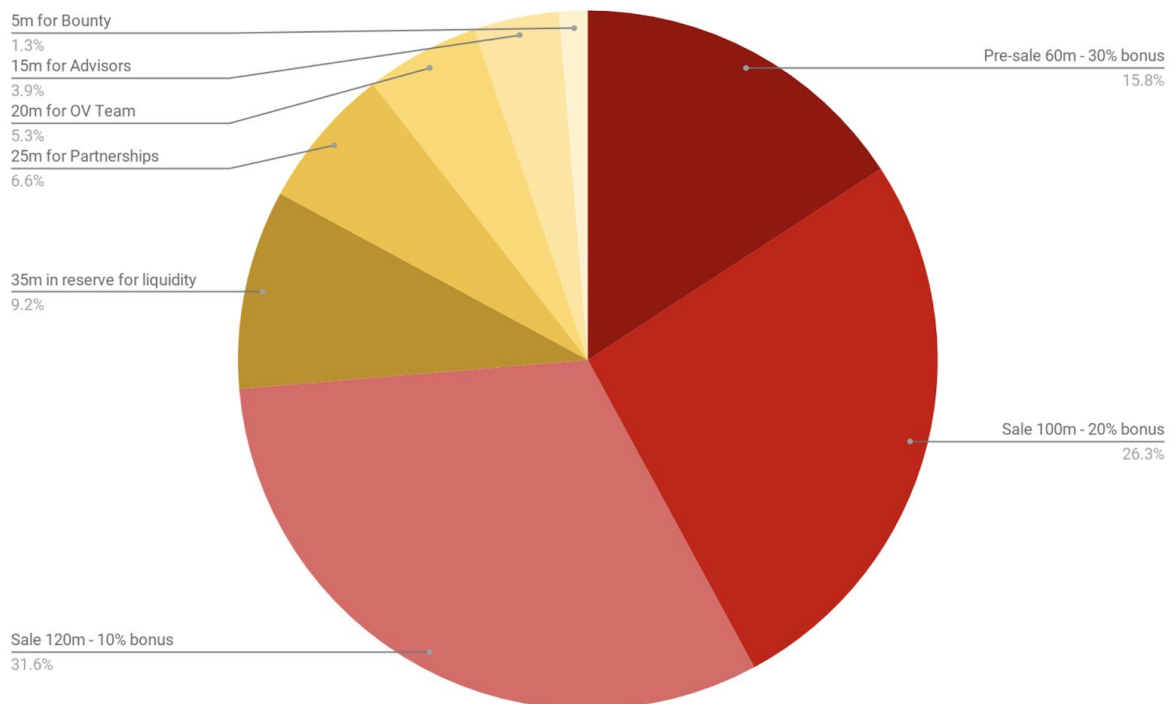


## 9. ICO Structure

**380 000 000 tokens created** - this is the total supply. We will not create additional tokens.

- **280 000 000 tokens available for ICO**
- **1 ETH = 1369 OV tokens | 1 OV token = approximately 0.36\$**
- **ICO hard cap at 205 000 ETH | approximately 100 000 000\$**
- **ICO soft cap at 22 000 ETH | approximately 11 000 000\$**
- **Minimum contribution 0.5 ETH | Maximum contribution for main sale: 500 ETH**

- Pre-sale 60 000 000 tokens at 30% bonus
- Main-Sale 100 000 000 tokens at 20% bonus
- Main-Sale 120 000 000 tokens at 10% bonus
- **Remaining 100 000 000 tokens will be split as follows:**
  - 35 000 000 tokens in OV reserve for liquidity of the platform
  - 25 000 000 tokens for Community and Partnerships
  - 20 000 000 tokens for OV Team with 1 year lock up (8 000 000 Founders; 12 000 000 for remaining team members)
  - 15 000 000 tokens for Advisors, Early Backers
  - 5 000 000 tokens for Bounty



## 10. Budget allocation

Depending on the level of ICO realization the proceeds from ICO will be invested accordingly. Below are three different scenarios depending on level of investment acquired. Investment estimations are based on the **expected average yearly costs, they also include ancillary expenditures** (e.g. office space, equipment, licenses, travel etc.). At each level the **budget assumes a two year run rate**, so that the team can prioritize growth vs profitability in the initial stage. After 24 months the business objective is to be profitable, so that OV will be able to cover both the ongoing operation as well as further expansion. The higher the level of ICO realization the more features we will implement and the faster growth we will aim for.

## 10.1 Soft Cap realization

**Between 15% to 30% of the full ICO, approximately \$15 000 000 to \$30 000 000.** In this scenario we will focus on implementation of the digital masterpieces project. Introducing a brand new digital asset class to art market generates huge opportunity to expand the market size, involve investors from all over the world and create strong PR and publicity. Depending on the final amount raised we will prioritize faster development and put more resources in to speed up the process.

- **Platform development 60%**
  - Development team of 15-20 blockchain, front, back - end developers (\$4 500 000) yearly run rate
  - Infrastructure, storage, security, testing (\$1 000 000) yearly run rate
- **Partnerships and business development 25%**
  - Business Development team 3-5 art experts (\$1 000 000) yearly run rate
  - Image, photographic, post production 3-5 experts (\$1 000 000) yearly run rate
- **Marketing, events, communication 10%**
  - Events, marketing and PR teams 2-3 experts (\$500 000) yearly run rate
  - Production of events and comms material (\$500 000) yearly run rate
- **Legal and administrative 5%**
  - Lawyers, accountants, HR, admin support 2-3 experts (\$500 000) yearly run rate

## 10.2 Mid-realization

**Between 30% and 60% of the full ICO, approximately \$30 000 000 to \$60 000 000.** In this scenario we will focus on the digital masterpiece, same as in the minimum/soft cap version, however we will be able to scale it faster as well as implement the tokenized investment model. We can aim not only at high net worth investors' needs but also occasional ones. We are addressing wider audience and as a result our expenditures towards business development and marketing will be higher. Depending on the final amount raised we will prioritize faster development and put more resources to speed up the process.

- **Platform development 45%**
  - Development team of 30-40 blockchain, front, back - end developers, product managers, UX designers, data analysts (\$9 000 000) yearly run rate
  - Infrastructure, storage, security, testing (\$2 000 000) yearly run rate
- **Partnerships and business development 30%**
  - Budget for joint partnership (\$4 000 000) yearly run rate
  - Business Development team 10-15 art experts (\$2 000 000) yearly run rate
  - Image, photographic, post production 3-5 experts (\$1 000 000) yearly run rate
- **Marketing, events, communication 15%**
  - Marketing budget, awareness building (\$2 000 000) yearly run rate
  - Events, marketing and PR teams 5-8 experts (\$1 000 000) yearly run rate
  - Production of events and comms material (\$500 000) yearly run rate
- **Legal and administrative 10%**
  - Lawyers, accountants, HR, admin support 8-12 experts in different jurisdictions (\$2 000 000) yearly run rate

## 10.3 Hard Cap realization

**Between 60% and 100% of the full ICO, approximately \$60 000 000 to \$100 000 000.** In this scenario we will implement all three models for investors: digital masterpieces, tokenization and patronage. This will allow us to fully scale our platform, business and let us compete with the biggest online marketplaces that exist currently e.g. Artsy or 1stdibs (the former closed \$50 000 000 financing round last year at the \$275 000 000 valuation). Raising the full amount in the ICO will enable us to revolutionize access to art market for all investors even the new ones with relatively small funds. We will be engaging with a wide range of young and new artists and will be fully scaling to mass market. We will need to add substantial resources for community management, both on investors as well as on artists side. Depending on the final amount raised we will prioritize faster development and put more resources to speed up the process.

- **Platform development 30%**
  - Development team of 50-60 blockchain, front, back - end developers, product managers, UX designers, data analysts (\$11 000 000)
  - Infrastructure, storage, security, testing (\$2 500 000)
- **Partnerships and business development 35%**
  - Budget for joint partnership (\$5 000 000)
  - Community management 20-30 community and art experts (\$3 000 000)
  - Business Development team 30-40 art experts (\$5 000 000)
  - Image, photographic, post production 10-15 experts (\$2 000 000)
- **Marketing, events, communication 30%**
  - Marketing budget, awareness building (\$10 000 000)
  - Events, marketing and PR teams 15-20 experts (\$3 000 000)
  - Production of events and comms material (\$1 000 000)
- **Legal and administrative 5%**
  - Lawyers, accountants, HR, admin support 15-20 experts in different jurisdictions (\$2 500 000)

## 11. Roadmap

### ICO August-Sept 2018

- Pre-sale - 20.08 - 03.09.2018.
- Main sale - 10.09 - 30.09.2018
- Registration and integration of OV token on exchanges - November 2018

### Marketplace and creation of the first unique masterpieces Q4 2018 / Q1 2019

- Partnership with famous museums and artists.
- Creation of first unique blockchain owned masterpieces.
- Auctions of first masterpieces.

### Tokenization of digital masterpieces Q2 2019

- Platform functionalities for trading and owning percentage of digital artworks.

- Legal and financial setup.
- Outreach to wider investors audience.

#### **Tokenization of physical masterpieces Q3 2019**

- Platform functionalities for trading and owning percentage of physical artworks.
- Legal and financial setup.
- Secure physical storage and audit processes setup.

#### **Patronage beta Q3 2019**

- Artists and patrons profiles and functionalities.
- Patronage economy - charity, rewards.
- Art contests and workshops for artists to promote the platform in the community. Getting early/beta users and testers (limited number of countries).

#### **Patronage and investment models full deployment Q4 2019**

- Advanced patronage models including profit sharing with artists.
- Scaling of the platform to more artists and investors (open platform globally).
- Adding support for new art forms to the platform (music, video, sculpture).

## **12. Team**

International team, experienced in building successful businesses and partnering with world-class organizations across the world.

#### **Founders**

- **Joanna Pawluk** - entrepreneur, bringing business from ground zero through early stage funding to global operations, blockchain & cryptocurrencies expertise, building partnerships across the globe
- **Kris Pawluk** - over decade of experience working for several global organizations, most recently Google, as product manager and strategy leader, for cross-country, interdisciplinary and complex projects.

#### **Development team**

- **Dawid Wroblewski** - blockchain developer, product technology manager with 5+ years of experience working at Google.
- **Piotr Delkowski** - tech lead, full stack developer, with experience in CTO roles and founding his own companies.
- **Przemek Ciacka** - 10 years commercial experience in IT in total, specialized in web development. Lead departments of dozen people. Builds teams, coaches and teaches software programmers.
- **Andrzej Nagórski** - highly skilled system architect with almost 12 years of experience in building extensive software solutions. Previously full stack developer.
- **Denys Rozlomii** - more than 4 years as backend developer and DevOp. Certified system administrator. Involved in building multiprocessing, highly scalable systems.

#### **Product Strategy**

- **Binish Sharma Raja** - product lead, with experience across three continents in banking, software development and complex project management.

## UX and Design

- **Myn Kang** - UX lead, with experience working for Google, Facebook, Wieden and Kennedy, startup co-founder, and creative thinker.
- **Michal Sambora** - Design and Frontend Team Lead, strong experience on working for big brands and ICO/Blockchain projects.

## PR, Communications and Community

- **Fiona Chow** - over decade in designing and running global communication campaigns, experienced startup founder and board advisor with expertise in blockchain and ICO communications. Responsible for PR & Comms strategy for the UK and EU.
- **Rebecca Simpson** - Head of PR & Comms, Hong Kong
- **The Continuum Partners** - Strategic PR & Comms Partners for APAC region, based in Sydney, Hong Kong and Singapore.
- **Barbara Wasyl** - Editor in-chief, Content Lead, experience is PR for Swiss companies.
- **Tilen Kegl** - Community Management Lead, vast experience in ICO projects and art.

## Legal

- **PricewaterhouseCoopers**

## Artist and Community

- **Aleksandra Koper** - painter and sculptor, helping design features, processes and communications that will be adopted by artists community.

## Smart contract development and auditing

- **Alex Kampa** - experienced blockchain developer, senior technical expert of Blockchain Competence Centre at the European Commission's directorate general for informatics (DIGIT).
- **Bok Khoo** - Director and Consultant is an Actuary and quantitative software developer with over 28 years of industry experience. Bok, also known as the BokkyPooBah on [Ethereum.StackExchange.com](https://ethereum.stackexchange.com), [github.com](https://github.com) and [reddit.com/r/ethereum](https://reddit.com/r/ethereum), also runs BokkyPooBah's Ethereum Workshop in Sydney

## Advisors

- **Lax Poojary** - startup co-founder under Alphabet/Google umbrella. Experienced product manager, engineer and team leader, with expertise in navigating teams through changing business environments across various industries and functions; extensive international experience, with a deep understanding of diverse cultural and business practices.
- **Abhishekharee Parthasarathy** - finance expert and innovator, working in X - Google's "Moonshot Factory" a semi-secret research and development facility, Extensive experience in developing automated data collection and analysis systems, equity and assets research.
- **Karina Valencia** - extensive banking and regulatory experience as Chief of Staff and strategy lead for Citibank in London.

## 13. Disclaimer

This white paper is a work in progress. All of the information presented in this whitepaper is tentative and is subject to change at any time. White paper is posted for informational purposes only, none of the information herein should be construed as legal, accounting, or investment advice of any kind. This document does not represent a solicitation for investment, nor does it represent an offering or sale, public or private, of any kind of financial instrument, security or otherwise, in any jurisdiction. This whitepaper is provided as-is, for informational purposes only, with the intention of describing a prospective software infrastructure and business model ideas.