



Building infrastructure for the future of art investments and donations

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# 1. Executive summary

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

## 1.2 Problem:

- **Inaccessibility of art market** - the most desirable artworks are not for sale, they are owned by museums/foundations, e.g. the Mona Lisa in the 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). Moreover, new media art like digital photography, video, performance has no standard of ownership, making it almost impossible to be ownable and monetized.
- **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 on secondary market due to multiple middlemen, and on top of that, additional costs e.g. storage, insurance, transport, taxes. All of that reduces profits for investors by 20%-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. This enables ownership and trading not only of digital reproduction of physical artworks but of all new media art, opening new market possibilities for artists, galleries, investors and collectors..
  - Tokenization of art - ability to buy, own and trade a percentage ownership of famous Digital Masterpieces, e.g. owning 2% of a Digital Masterpiece.
  - 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:** New and more profitable **revenue stream** for investors, artists, collectors, galleries and museums. **Globally accessible** and trustless ownership of art, providing digital **store of value**. Preserving and popularizing world's culture.

**1.5 Market - \$50bn** art market currently with growth potential to \$100bn+ in the next few years. Currently fees just on the secondary market are in range of \$13bn, **OV could lower fees by \$10bn** if all trades were done on our platform.

**1.6 Business model: 5% fee on all trades** made on the platform and 1% fee on donations, current models are 4x-10x higher. Carry Commission of 5% for lifetime for artists, galleries, museums allowing them to participate in secondary market and value appreciation of artworks.

**1.7 Team:** majority working together for years at **Google**, on avg 10+ years of experience across US, Europe, Asia.

**1.8 Funding ICO:** Fall 2018; Soft-Cap \$3M; Hard-Cap \$36M; 380M tokens created, 280M for ICO, 1 Token = \$0.13 / 1 ETH = 3846 tokens. Unused tokens burned. Team tokens 1 year lock up + 1 year vesting.

## 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 a completely new revenue stream to rely less on government and private donations. A world where artists can find patrons and collectors easily, and receive profits from their works even after the initial sale for a lifetime. Imagine you can buy inaccessible icons of art like the Mona Lisa or the Night Watch. A 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 an infrastructure that is built on **three principles**:

- **Digitization** - we believe that the future will be digitized, and we have been observing this trend for the last decade. A good example is money, which first moved from seashells to 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 the outside. A good example of that is the reward system for miners in bitcoin.
- **Social Business Model** - Finally, we believe that whatever we do, we should aim for more than just economic success, we should have a positive impact on the society and civilisation as a whole.

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

- **Digital Asset Class** - the future of art is digitization and the challenge so far has been how to make art unique and ownable in the digital world. The Orion Vault Platform provides the infrastructure that allows artists and museums to create fully digital art pieces. We call them Digital Masterpieces. These Digital Masterpieces are the new Digital Asset Class, the future of art and art trading. For example, the Louvre can create a digital Mona Lisa, the Louvre then certifies that only one such Digital Masterpiece Mona Lisa will be ever created. The certificate and its ownership are coded on blockchain. This 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. The owner of the Digital Masterpiece can then feature it at home (on special digital screen), make it available to the public at a free virtual gallery, or trade it with investors. Another example of Digital Masterpiece creation involves working with new media artists (those working with digital photography, video, performance, etc.). Thanks to blockchain technology and creation of Digital Masterpieces we can make their art ownable. Even though new media art can be viewed by the public, it's crystal clear who is the owner of the unique and only certified version. This unlocks a lot of collectible and investment value for new media art, and because most of the art in few years will be new media art, it opens a new future for the whole art market.

- **Marketplace** - to attract more investors and funds into the art world, OV Platform enables investors to trade with the Digital Art Asset Class faster and retain more profits due to lower fees (up to 1/10 of what they would pay now). Blockchain ownership tracking ensures trusted and secure transactions and 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 a percentage of all future sales (even after the initial sale), for the lifetime. We are creating new revenue streams for museums and artists (as well as 'retirement plans' for artists). Additionally, society as a whole will benefit as OV makes possible the digitization of the whole world's art and culture, preserving it for future generations and making it accessible for free to the current ones.

### 3. Problem

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**.

#### 3.1 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, 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. Another difficulty is connected with the evolution of art. Currently most of the art is being created using new media, like digital photography, animation, video, performance, choreography and more. This type of art struggles to break through and get significant support of collectors and investors because of how hard it is to "own it". Of the few attempts so far to make new media art ownable, a successful solution has yet to be found. How do you make a unique, ownable, original version of a new media art piece? We believe that finding a solution to this problem will mark the future of art, as most art in the coming years will be created using new media.

Let's look now at different problems that key groups of investors face; what are their pain points and where are solutions most needed.

### 3.1.1 High net worth investors

They buy multimillion dollar paintings, and often have assets exceeding billions of dollars. They 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 through the entire 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 to enjoy it on a daily basis. Lastly, even the wealthiest investors can only dream of owning the Mona Lisa or The Night Watch as **a majority 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.

### 3.1.2 Occasional investors

They 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. They 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 art funds** and a **lack of relationships in 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.

### 3.1.3 New investors

They invest less than \$25 000 annually. For them, investing in art is more of a passion than a serious hobby. Often they 'bet' on young, up-coming and local talent. They lack experience and established relationships in the market. 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**.

## 3.2 Lack of transparency and trust

Opacity is the second biggest problem on the art market. There's no transparency on either price 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).

### 3.2.1 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 sale and buy side. **Especially on secondary market 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 profit 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.

### 3.2.2 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 by working with artists and galleries. 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

By using special [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 one 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.

Digital Masterpieces use blockchain technology to make them unique and ownable. The same mechanics are used for **all new media art like digital photography, video, performance, choreography and many more**. Thanks to blockchain certification there will be a clear owner of each specific art piece, even if that work is purely digital. Owner will decide whether to make it publicly available, something quite likely and similar such as how “normal” paintings have owners but are still presented in museums or online for free. We can imagine that the owner of such Digital Masterpiece will choose to make it available publicly, while only he retains the ownership and rights to sell or donate it. We believe that **this opportunity is crucial for the world of new media art, and because this kind of art will be a majority of the art in future, this solution is vital to the whole art world.**

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

When artwork is tokenized, **investors can easily trade a percentage of shares of ownership from the given artwork**. For example, an investor can own a 5% share of 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 needs 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 five 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 facility (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 third party verification. **Elimination of intermediaries in the secondary market 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 and museums

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). Museums already run multimillion retail operations, often bringing more revenue than tickets sales (for example The Metropolitan Museum in New York has approximately 50 000 000 dollars of revenue from retail activities per year). 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 Creating new digital asset class - digital masterpieces and new art

More and more art is created in new media. For the last few years artists and investors have been experimenting with how to best get involved in the space. GIFs, videos and art on domain have been sold for tens of thousands of dollars, showing that there is interest, but could not reach higher values as it was difficult to own a digital asset or collectible. In the last few months, thanks to blockchain technology we see a rising tide. Kevin Abosch sold his Forever Rose, digital photography coded on blockchain, for 1 000 000 dollars (in February 2018), and

CryptoKitties has sold more than 23 000 000 dollars in just few months. This shows that when we solve the ownership of digital assets, their value can grow. And this is just the beginning for the world of new media fine art.

#### 4.3.3 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.

#### 4.3.4 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.

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

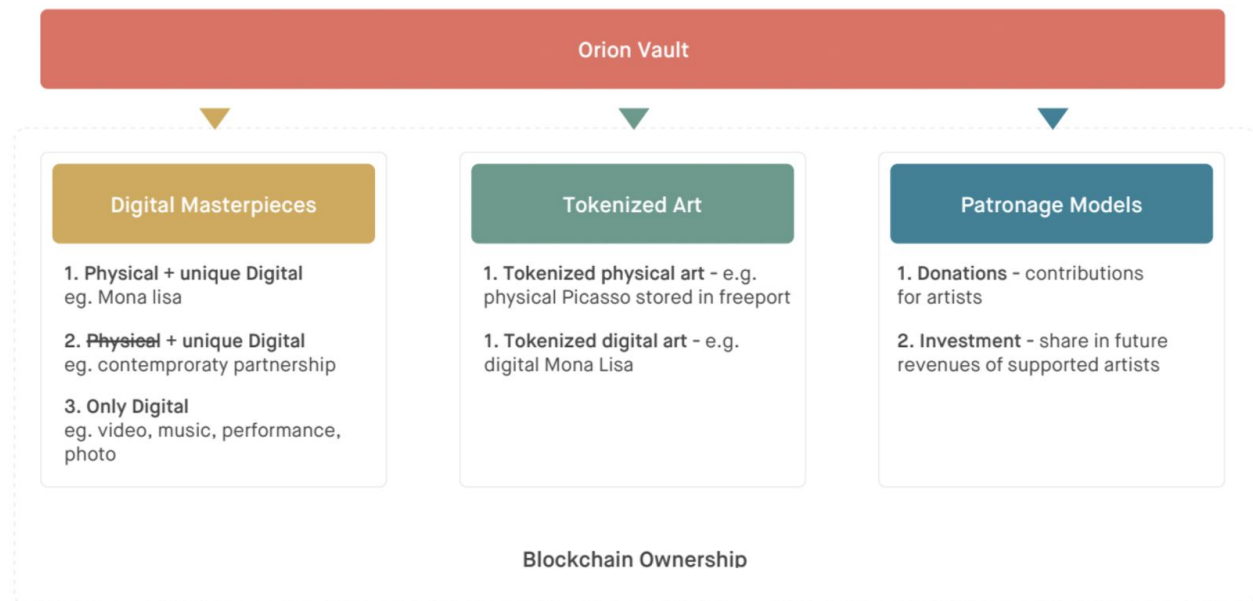
Currently the high number of intermediaries eat into profits on both the seller and buyer sides. Investors and collectors are tired of slow and manual processes that involve multiple parties and middlemen. Unfortunately, online marketplaces didn't solve this problem, although they are the only growing 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).

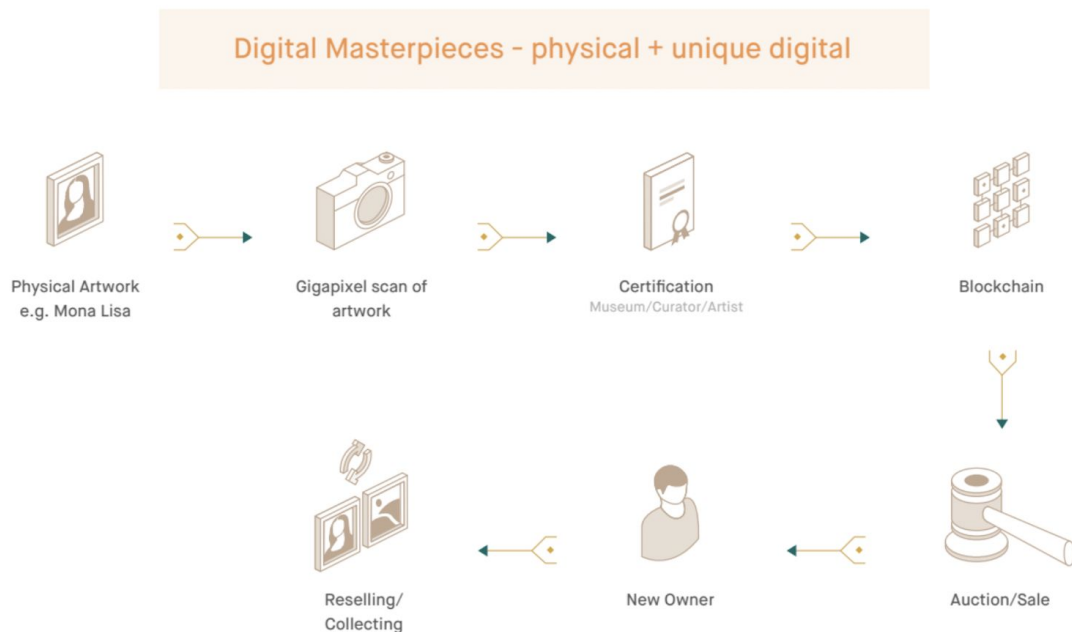
Secondly we will look at tokenization of art with two use case examples (1) tokenization of physical artwork from private collection (e.g. Picasso painting stored in freeport) (2) tokenization of digital masterpiece, e.g. the digital Mona Lisa whose owner has decided to tokenize it.

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.



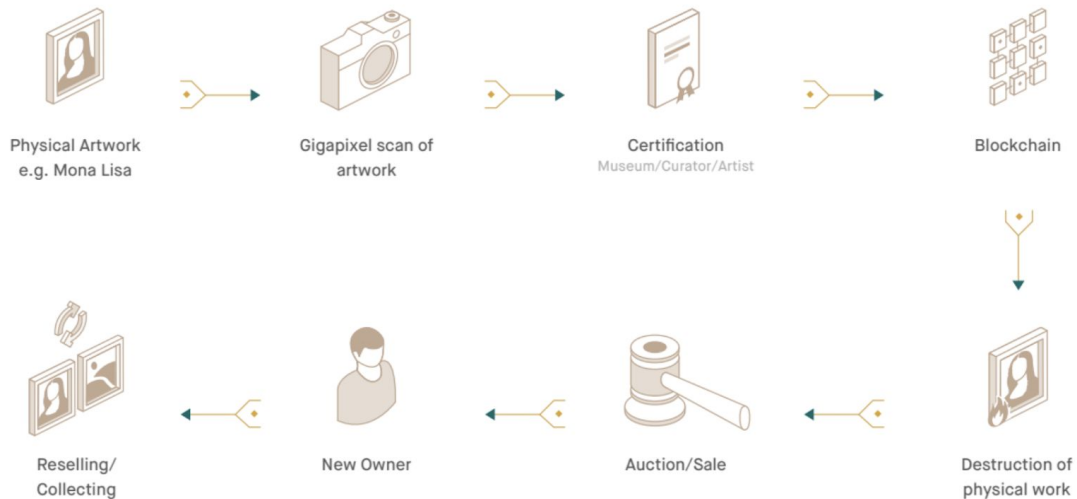
## 5.1 Digital Masterpieces

**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).



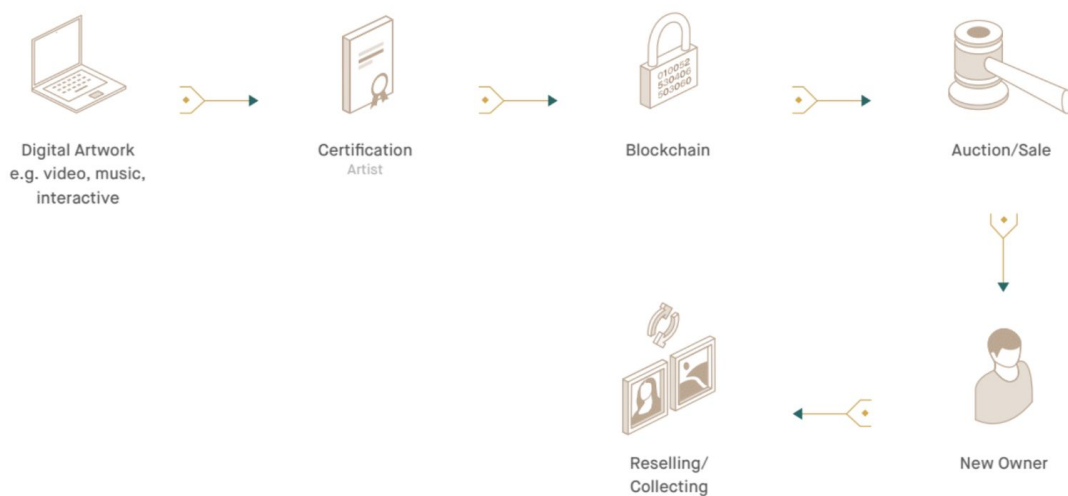
5.1.2 The second use case is to partner with famous contemporary artists to digitize, code on blockchain and certify their artworks. We want to **create a digital state of art and allow contemporary artists to move all their work into digital world**. After the digital-blockchain version is created (again only one will ever be available) the **original physical piece will be destroyed**. Therefore only the digital-blockchain version will ever exist. This may seem like a radical approach, however there are a number of reasons why this can be interesting for both investors and artists. Firstly, the initial digital masterpieces created in this way will be the first of its kind, possibly starting a new artistic trend and attracting a lot of publicity (especially when done in partnership with well-known artists). This has the potential to dramatically increase their value and desirability. The second reason is the practicality of it. Digital masterpieces have a 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.

### Digital Masterpieces - physical + unique digital



**5.1.3 The third use case is to allow artists who create only in digital space** (such as video, music, interactive and performance) to create unique digital art pieces ownable on the blockchain. This unlocks great potential for new media and 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).

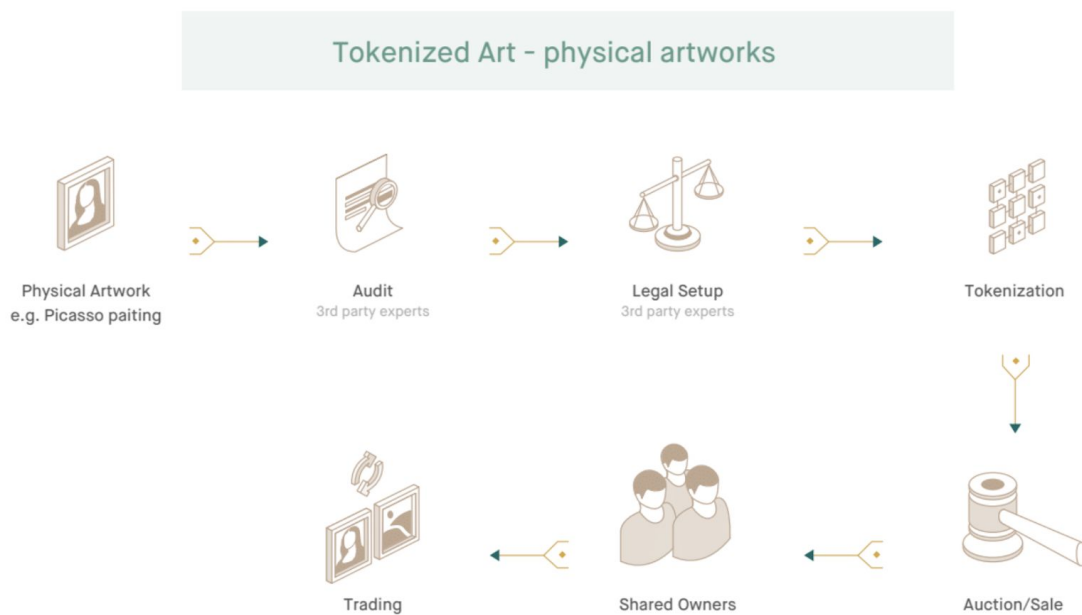
### Digital Masterpieces - only unique digital





## 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 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 a percentage of 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.



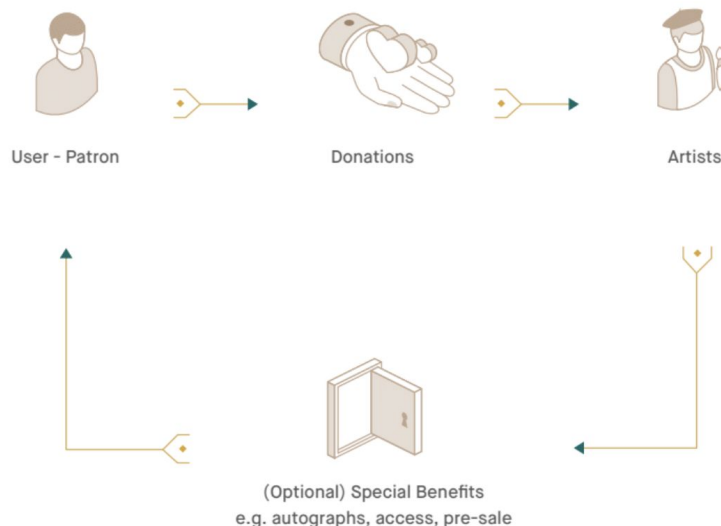
### Tokenized Art - digital artworks



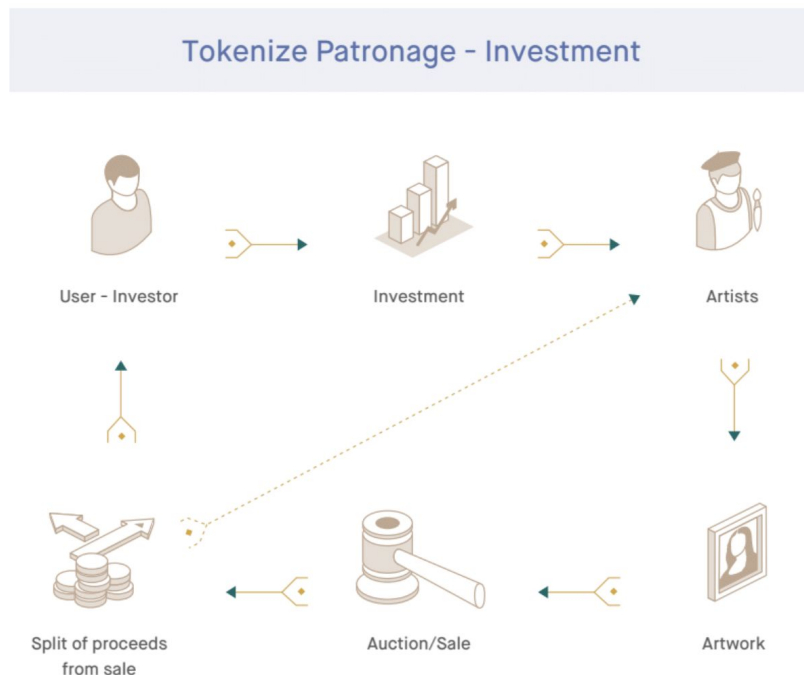
## 5.3 Art Patronage

**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.

### Tokenize Patronage - Donations



**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 anyone 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. **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 a clear chain of ownership so investors can track who introduced the artwork to the

platform in the first place (mostly Museums and Artists themselves). On top of this **OV provides proper audit, background and provenance clearing** to ensure only the trusted artworks are added to the platform.

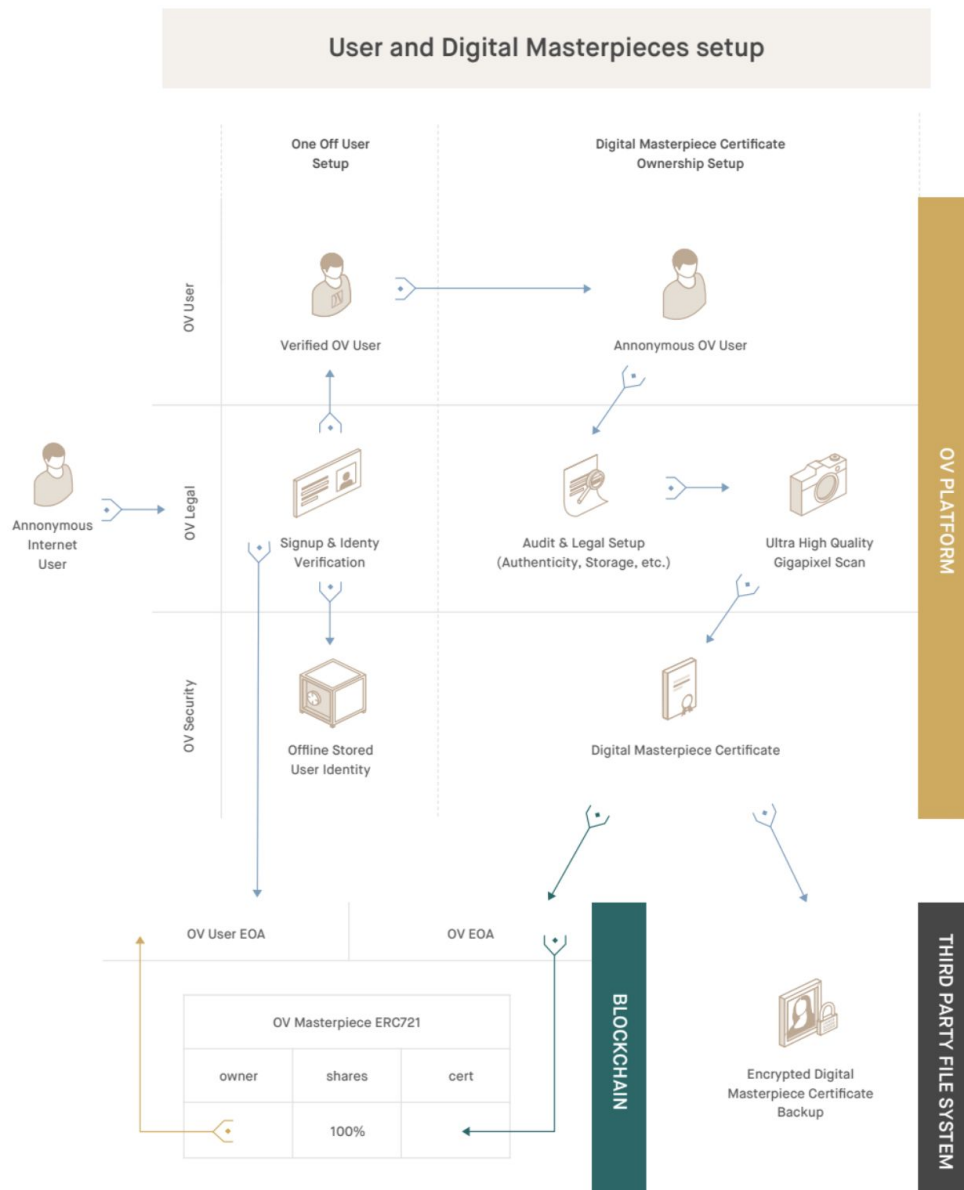
- Transparency. All activities exercised in regards to ownership happen on blockchain (OV users can choose to remain anonymous to the public or disclose their name). **All fees are transparent and visible on blockchain.** As with every technology based on the Ethereum blockchain, the data is immutable so no one can amend or remove a ledger entry. It also uses a 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 an 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 third party distributed file systems**: either on traditional cloud servers (e.g. Google Cloud, Amazon Web Services) and/or IPFS (e.g. Filecoin).

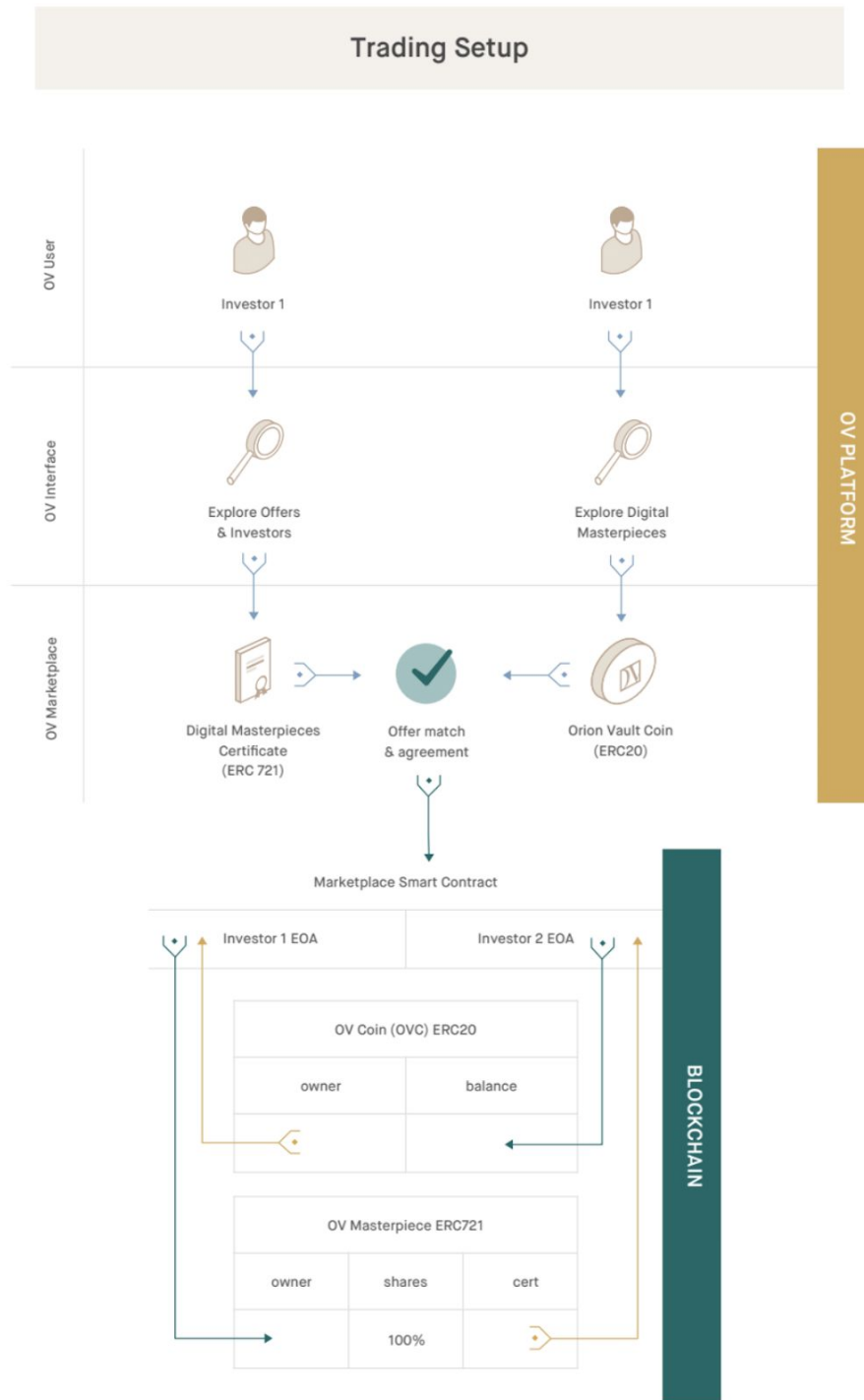


## 6.2 Trading setup

Orion Vault Platform aims to provide a secure and fast trading environment for Digital Art Assets. Investors are able to trade directly between themselves, which speed up trades and allow for more participants to invest, hence increasing liquidity, offer lower fees, and retain 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 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.

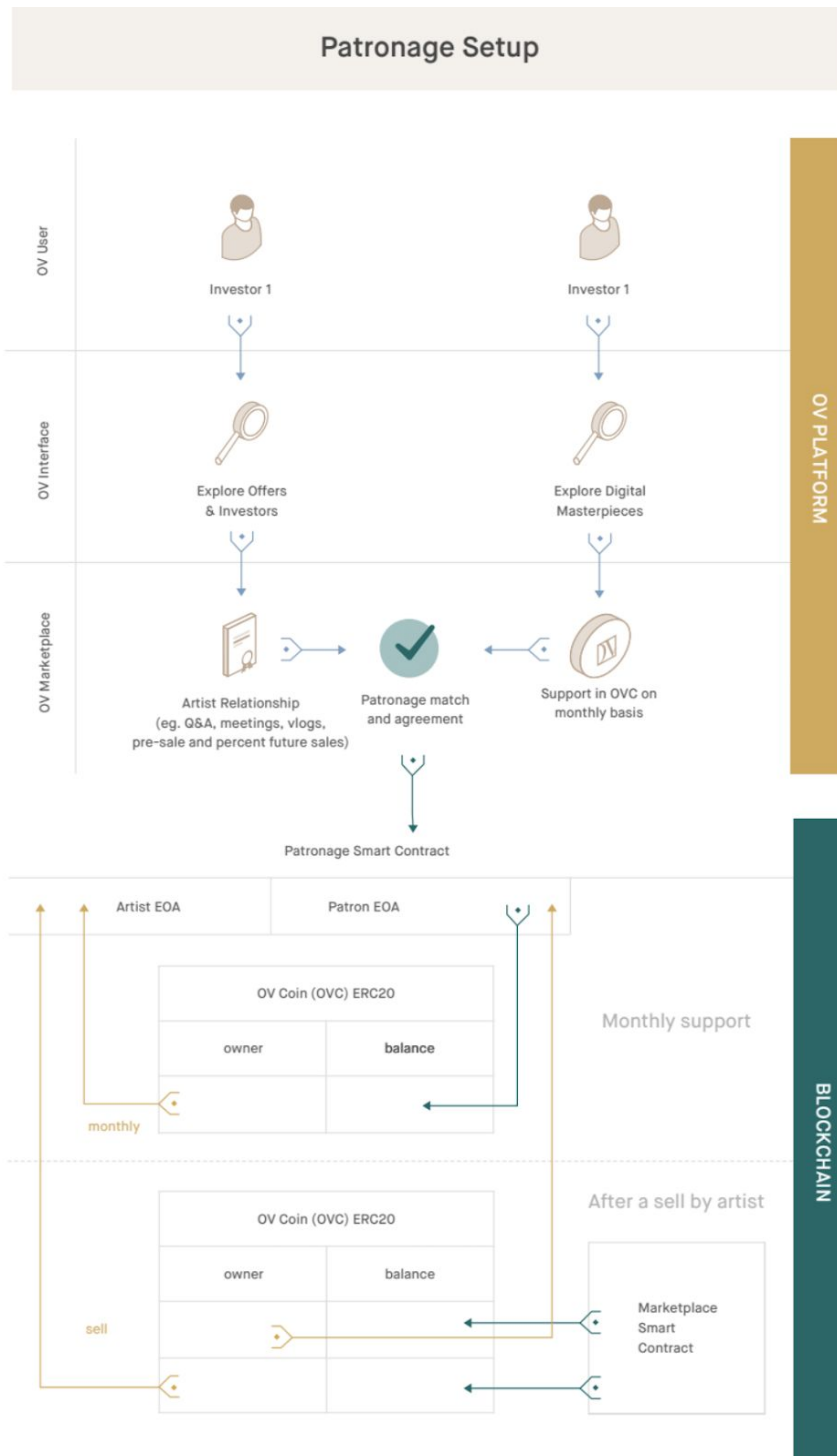
- When Investor 2 finds an interesting Digital Masterpiece (ERC721) she/he extends an offer (agrees to buy at the price stated by Investor 1) on OV Marketplace. Investors reach agreement and a Trade Smart Contract is signed by both and send to blockchain for execution.
- Investor 1's address (EOA) receives 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 just a few hundred dollars (or equivalent in Orion Vault Coin - OVC) are able to invest in young artists and potentially get a share in the profits that come from the 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 will look like:

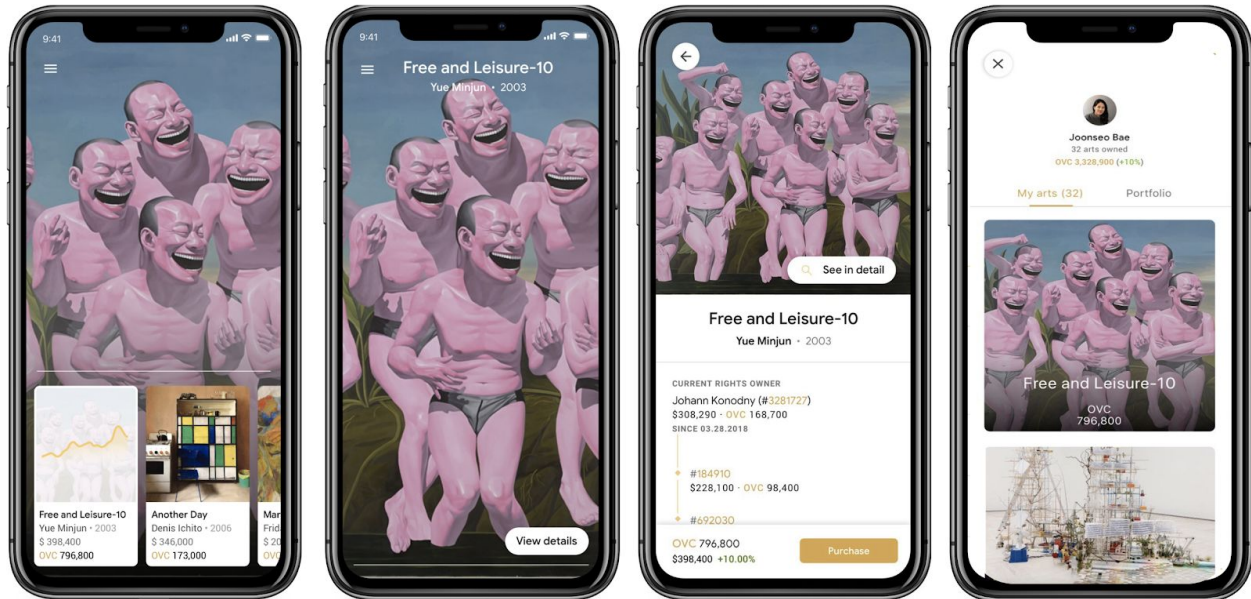
- Artist and Patron as OV Users explore OV platform searching for patronage opportunities. When the match is made Patron and Artists sign a Patronage Smart Contract and send to blockchain for execution.
- The patronage can have multiple benefits which are decided by the Artist and the Patron based on 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 their 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 a 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

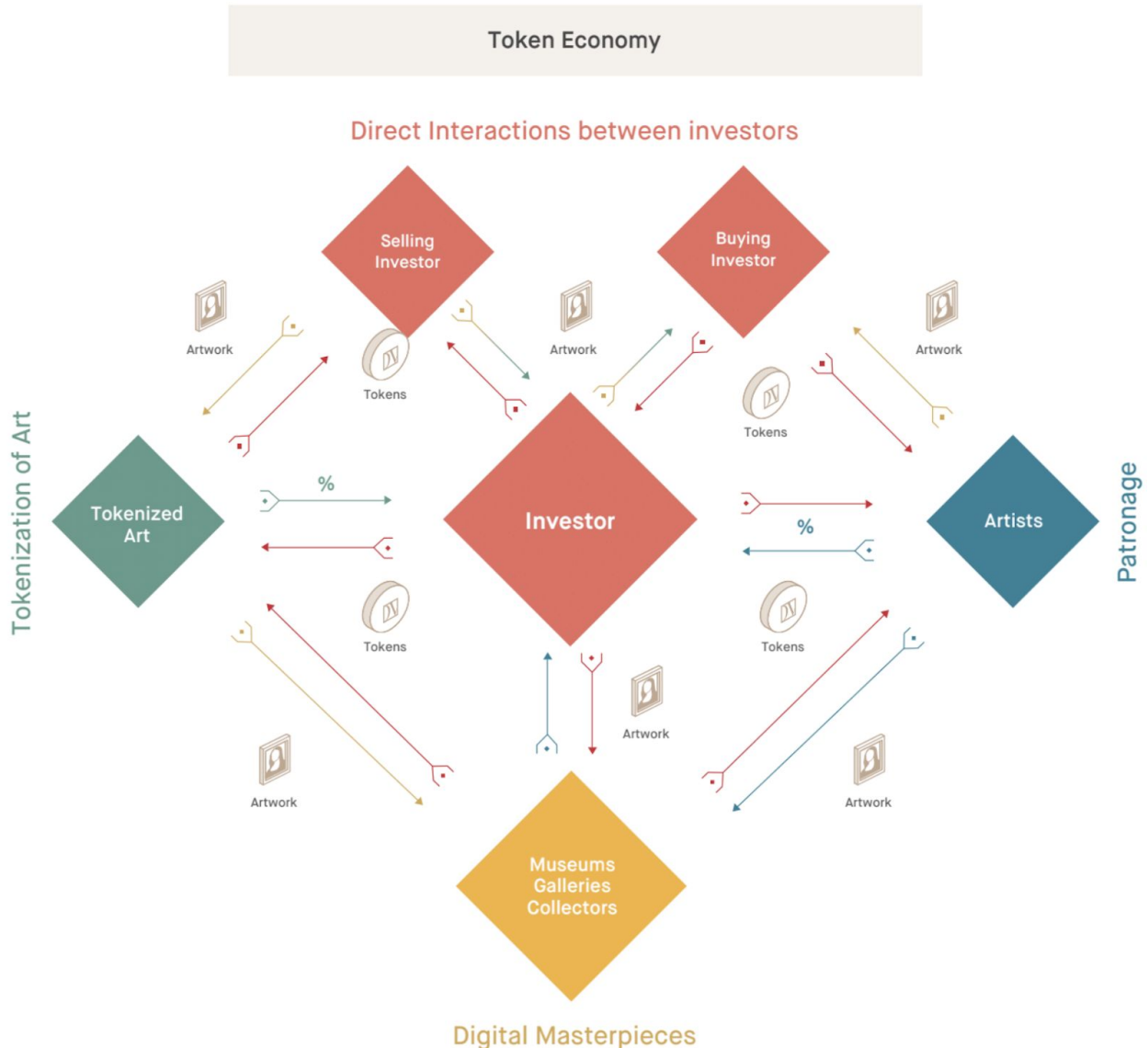
Tokens are essential to create a healthy and growing investment ecosystem. They will lower transaction fees, speed up interactions between parties and automatically code the art piece ownership on blockchain.

### 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 the 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 a 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 a percentage of ownership in tokenized digital artworks. Investors can trade directly with each other, as well as with artists with no need for a third 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.)



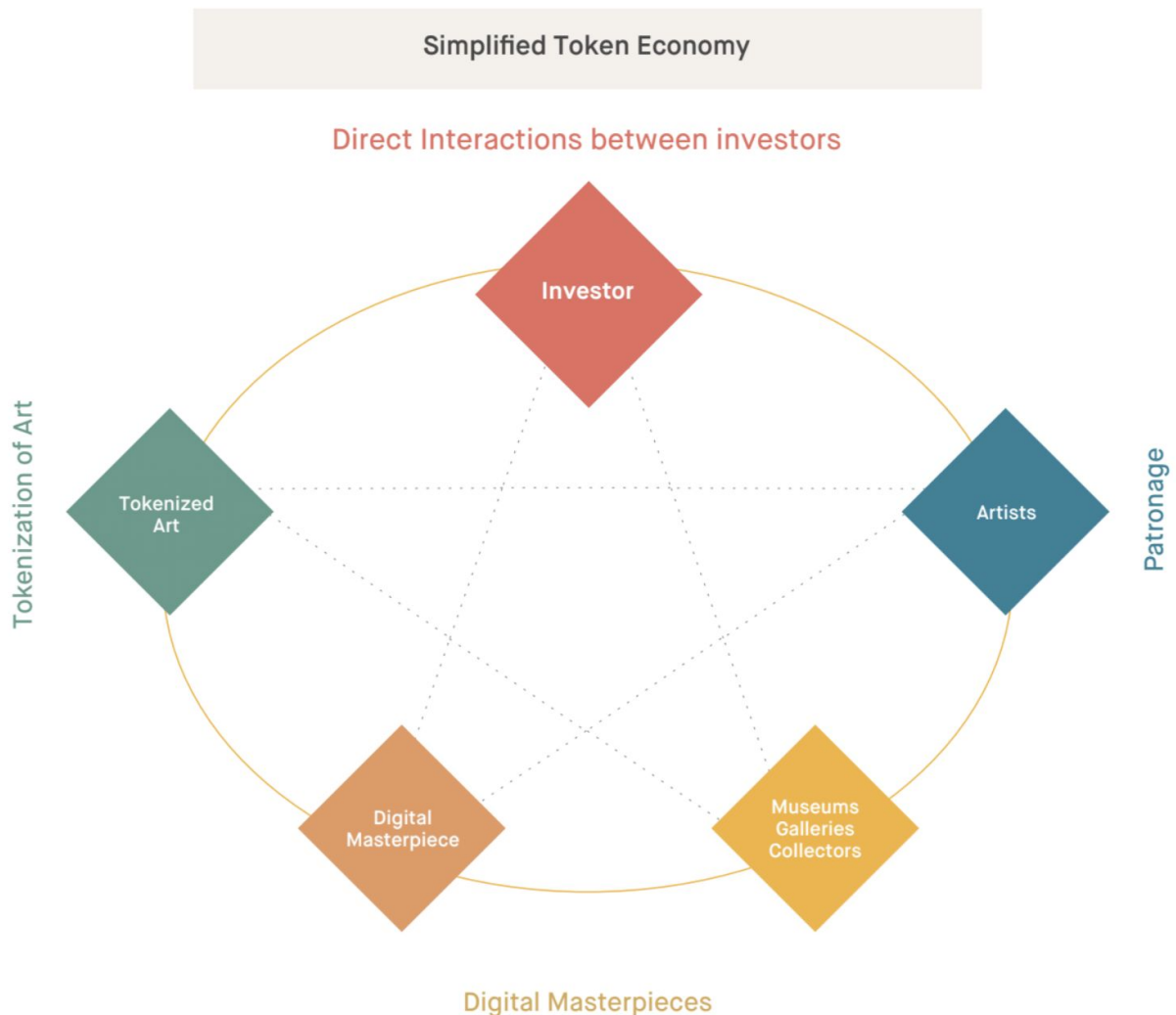
- **Profit share** - for significant support over time, investors can participate in profits generated by artist's work. Percentage split and duration of the agreement will be specified by investor and artists and coded in the smart contract, making any settlements automatic.
- **Artists** can use tokens to get support from community experts - for example, more experienced artists, art judges and 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.



### 7.3 Tokens characteristics

There are two main tokens that will be used on the OV Platform. The first is the Orion Vault Coin (OVC), an ERC 20, fungible, utility token that will be used for the payments and using special features on the OV Platform. This is the token that will be issued during the ICO. The second token in Digital Masterpiece is a non-fungible token. This token will be unique and will represent specific Digital Asset (artpiece). Those tokens will be created, certified and verified by OV, users (artists and museums), and will be traded on the OV Platform, using OVC.

#### Orion Vault Coin

- ERC 20 token (fungible)
- The token will be sold through ICO directly for ETH and indirectly for BTC and fiat currencies
- Utility token, the only medium of payment on OV platform
- Set amount created - 380M, out of that 280M for ICO
- Tradeable on exchanges e.g. Kraken, Binance, Gdax, Bitfinex etc (depending on post-ICO listings)
- Ownership is unrestricted and can be owned by anyone on Ethereum Blockchain

- Benefits:
  - One medium of payment regardless nationality and local currency.
  - Less fees compared to international payments, multiple exchange rates.
  - Safer auction environment, easier to ensure that buyer has enough funds to participate in auction.
  - Transparency of transaction prices - no under the counter, hidden transactions.
  - Fix supply.
  - Price of OVC is connected with the OV Platform ecosystem and with art that is on it, making it more dependable on the performance of the platform and art itself. Whereas price of ETH can fluctuate significantly regardless of OV platform performance, based on external conditions (like changes of PoW vs PoS, forks, etc.)

### **Digital Masterpiece**

- ERC 721 \*INSPIRED\* token (non-fungible). Token will have more features than a typical ERC 721.
- Tradable on OV Platform
- Each Digital Masterpiece represents certificate of ownership of a specific, unique, Digital Masterpiece(art piece)
- Can only be traded using OVC - we will offer an extra layer of interface allowing for using other currencies and instant conversion into OVC
- Can be owned only by verified OV users
- Can have partial ownership (e.g. one user owning 40% and another 60%), in that case the original Digital Masterpiece is destroyed and two new Digital Masterpieces are created DM40 and DM60. Shares can be also merged to combine them back into one DM (then DM40 and DM60 gets destroyed)
- Digital Masterpiece will contain details of certification:
  - EOA of the issuer a.k.a. the first owner on the platform to transfer
  - Artist name
  - Painting name
  - Introduced by - museum / curator names / people involved in the process
  - Date of introduction
  - Trade history:
    - Price history
    - Dates of trades
    - User/Accounts that traded it

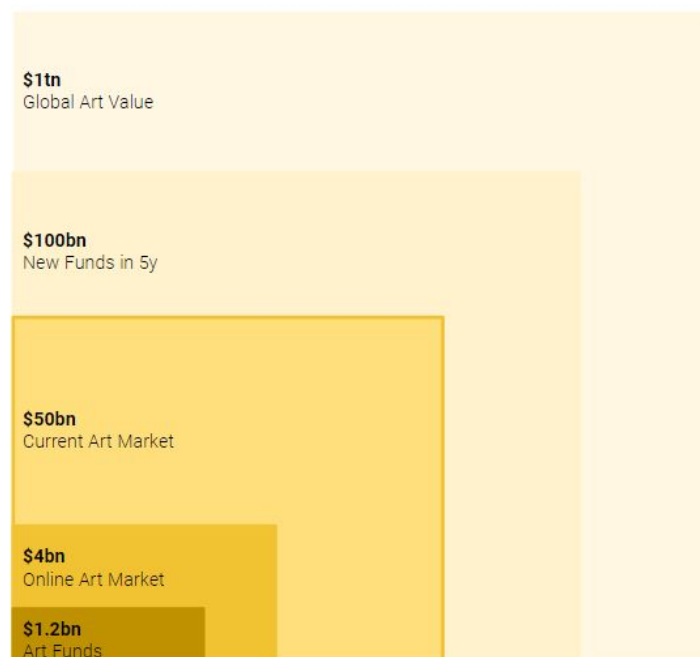
## 8. Business model

The main objective of Orion Vault is to build a healthy and growing art 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.

### 8.1 Art Market

The current estimated size of the current, **art market is between \$40bn - \$60bn** (artnet<sup>1</sup>, TEFAF<sup>2</sup>, Art Basel<sup>3</sup>). Within that, the **online art market grew by 12%** in 2017 to \$4.22bn from \$3.75bn in 2016 (Hiscox report<sup>4</sup>). Estimates for 2018 for online art market are in the range of \$5bn.

The Art market has strong growth projections, as the number of wealthy people in the next five years will increase by 43% (from 2.5m to 3.6m people - KnightFrank report<sup>5</sup>), this will have a positive impact on luxury and art markets. 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. Our goal is to start with capturing the digital and new media art market. We plan to move quickly as there is no solution like OV on the market. In three to four years we are aiming to generate \$0.5bn-\$1bn of value on the platform. Then scale further to \$1bn-\$2bn in sales which would make us the number one online platform and one of top players in the entire art market. At that level, we would have approximately **50% of digital art market, 20% of online sales and 2.5% of overall art market market, while charging 5% fee on transactions**, which is 4x-10x lower than current fees and extra charges of 20%-50% for secondary market of physical artworks (buyers fee, hidden commissions, shipping, storage, security, insurance).



<sup>1</sup> <https://news.artnet.com/market/after-18-years-tefaf-scrap-art-market-report-1202942>

<sup>2</sup> <http://1uyxqn3lzds2ylyzi1asxmmmp1.wpengine.netdna-cdn.com/wp-content/uploads/2017/03/TEFAF-Art-Market-Report-20173.pdf>

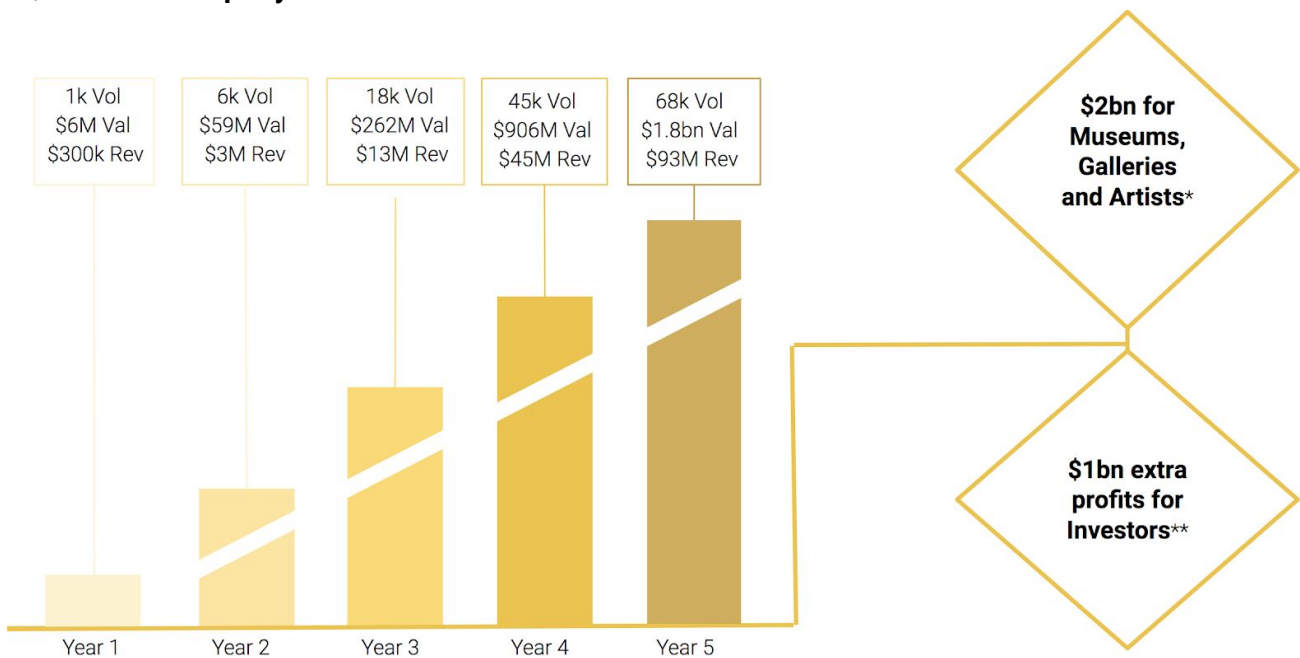
<sup>3</sup> [https://d33jpfjgdr91.cloudfront.net/asset/cms/Art\\_Basel\\_and\\_UBS\\_The\\_Art\\_Market\\_2017.pdf](https://d33jpfjgdr91.cloudfront.net/asset/cms/Art_Basel_and_UBS_The_Art_Market_2017.pdf)

<sup>4</sup> <https://www.hiscox.co.uk/sites/uk/files/documents/2018-04/Hiscox-online-art-trade-report-2018.pdf>

<sup>5</sup> <http://www.knightfrank.com/resources/wealthreport2018/the-wealth-report-2018.pdf>

## 8.2 Growth Assumptions

The below growth assumptions are to show our approach to scaling and how much value it brings to the whole ecosystem, - museums, galleries, artists and investors. We start with the creation of smaller number of Digital Masterpieces, but focus on the most desirable and valuable objects, both from new media as well as by digitizing traditional paintings that are not for sale. Lower volumes allow for high quality work and refinement of the process. High value of individual pieces creates a lot of buzz and proves that digital art is valuable and desirable. Due to high individual prices the value on the platform is already significant. Thanks to tokenization of Digital Masterpieces more people will be able to invest into each single piece. In the following years, we will start digitizing more art, with more museums, galleries and artists. Our plan is to be cash flow positive between year two and year three, becoming also one of top to-go places for art in the world. With those assumptions, after five years, **new business as well as recurring trade, would generate a cumulative \$2bn for museums, galleries and artists while saving investors \$1bn in fees and commission. At this stage token economy would be approximately \$1.8bn dollars per year.**



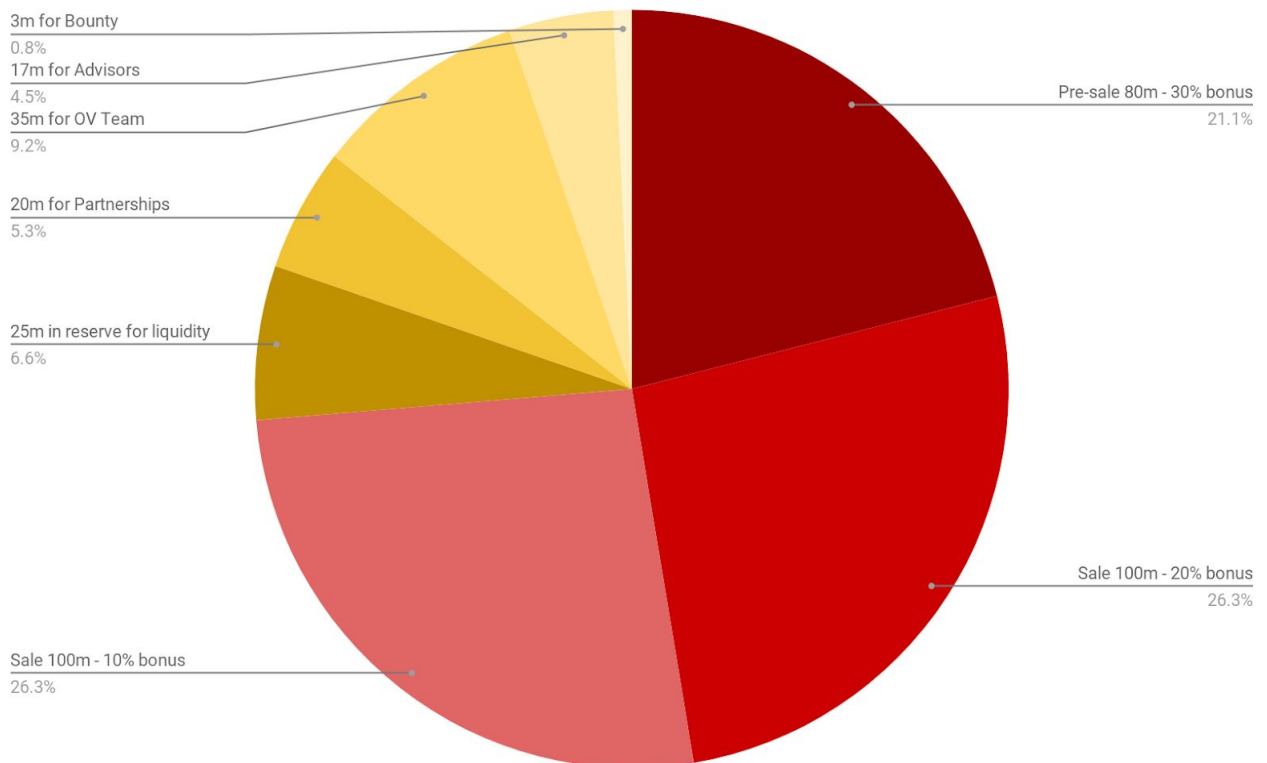
\* Cumulative value generated in five years by donations, sales of artwork and carry commission on OV Platform and paid out to Museums and Artists

\*\* Cumulative extra profits in five years due to lower fees on OV platform vs current solutions

## 9. ICO Structure

**380 000 000 tokens created** - this is the total supply. Token is ERC 20 (OVC). We will not create additional tokens.

- **280 000 000 tokens available for ICO**
- **1 ETH = 3846 OV tokens | 1 OV token = approximately 0.13\$**
- **ICO hard cap at 72 800 ETH | approximately 36 000 000\$**
- **ICO soft cap at 6 000 ETH | approximately 3 000 000\$**
- **Minimum contribution 1 ETH main sale | 20 ETH pre-sale**
  - Pre-sale 80 000 000 tokens at 30% bonus
  - Main-Sale, first four weeks 100 000 000 tokens at 20% bonus
  - Main-Sale 100 000 000 tokens at 10% bonus
- **Remaining 100 000 000 tokens will be split as follows:**
  - 25 000 000 tokens in OV reserve for liquidity of the platform
  - 20 000 000 tokens for Community and Partnerships
  - 35 000 000 tokens for OV Team with 1 year lock up (16 000 000 Founders; 19 000 000 for remaining team members)
  - 17 000 000 tokens for Advisors, Early Backers
  - 3 000 000 tokens for Bounty



## 10. Budget allocation

Depending on the level of ICO realization, the proceeds from the ICO will be invested accordingly. Below is the likely scenario for allocating the net resources (after commissions, fees, conversions and taxes). The below investment estimations are based on the **expected average yearly costs. They also include ancillary expenditures** (e.g. office space, equipment, licenses, travel, etc.). **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.

**Assuming net resources of \$15 000 000 to \$30 000 000**, we focus on introducing a brand new digital asset class to art market 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 experts, front and back - end developers, UX designer and product team (\$4 500 000) yearly run rate
  - Infrastructure, storage, security, testing (\$1 000 000) yearly run rate
- **Partnerships and business development 25%**
  - Business Development: team three to five art experts (\$1 000 000) yearly run rate
  - Image, photographic, post production: three to five experts (\$1 000 000) yearly run rate
- **Marketing, events, communication 10%**
  - Events, marketing and PR teams: two to three experts (\$500 000) yearly run rate
  - Production of events and communication material (\$500 000) yearly run rate
- **Legal and administrative 5%**
  - Lawyers, accountants, HR, admin support: two to three experts (\$500 000) yearly run rate

## 11. Roadmap

### **ICO Fall 2018**

- Pre-sale - precise dates to be announced
- Main sale - precise dates to be announced
- Registration and integration of OV token on exchanges - December 2018/January 2019

### **Marketplace and creation of the first unique Digital Masterpieces Q4 2018 / Q1 2019**

- Partnership with famous museums and new media artists
- Creation of first unique blockchain owned Digital 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

### **Patronage beta Q2 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 Q3/Q4 2019**

- Advanced patronage models including profit sharing with artists
- Scaling of the platform to more artists and investors (open platform globally)
- Creation of ETFs based on the art traded on the platform



## 12. Team

We are comprised of an 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 and 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

- **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 Nagorski** - 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.
- **JoonSeo Bae** - interaction designer, implemented multiple design projects at Google, graduated from School of Visual Art in New York and Rhode Island School of Design,

### 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.
- **Allie Maltese** - Expert in effective communication, media relations and marketing with 10 years' experience in both agency and in-house public relations. Highly specialized in managing and executing PR campaigns for top global brands in the tech, beauty, lifestyle and consumer goods industry. Career highlights include helping raise \$60 million dollars for client ICO, as well as high level media placements in the New York Times, Good Morning America, TODAY Show, Oprah Magazine and many more.
- **Wei Wang** - With over 17 years of experience in journalism and strategic communications, Wang Wei has been providing a great variety of consulting services for both Chinese companies abroad and foreign companies in China, specialized in corporate communications, content creation, media relations, and public affairs. She also worked with think tanks, international organizations and NGOs in China and abroad.

Having lived and worked in China, Southeast Asia, the United States and Europe, Wang Wei has deep understanding and strong background in cross-cultural communications, and will play a key researching and advisory role to the project.

- **Elena Zhukovskaya, PhD** - Over 10 years in marketing, PR and strategic consulting. Experienced at marketing communications and investment relations for high-tech and blockchain projects. A member of the ICO Expert Community. Responsible for marketing and PR strategies on Russian market.
- **Vibhor Khare** - Community Management Lead, vast experience in ICO projects and art.

#### **Image Capture and Storing**

- **Eric Pomeranz** - leading R&D for new ways to capture art (image, performance, digital) and provide scalable storage solution. Previously Robot Design Engineer at Google.

#### **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, github.com and reddit.com/r/ethereum, also runs BokkyPooBah's Ethereum Workshop in Sydney

#### **Advisors**

- **Marc P. Bernegger** - entrepreneur, founder and investor. Sold usgang.ch to Axel Springer, amiando to XING, awarded by the World Economic Forum as 'Global Technology Pioneer', '100 most successful people under 40 in Switzerland' by BILANZ. From 2012 focusing on fintech and on crypto assets. Active board member and among others involved in FinLeap, Falcon Private Bank and Crypto Finance Group.
- **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.
- **Abhishekhar 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.
- **Seth Cochran** - founder, CEO and social entrepreneur, has 18 years of experience ranging from banking, consulting, through academia to non-profits.

## 13. Disclaimer

### **Risk Factors**

Acquisition of OV Tokens involves a high degree of risk. You should consider carefully the risks described below, together with all of the other information contained in this white paper (White Paper) before making a decision to acquire OV Tokens. The following risks entail circumstances under which, our business, financial condition, results of operations and prospects could suffer.

### **This White Paper is no prospectus in the sense of art. 1156 and 652a Swiss Code of Obligations or any other applicable regulations.**

This White Paper is not a prospectus as set forth and regulated in Art. 1156 and 652a Swiss Code of Obligations, under the European Prospectus Regulation, or under any other applicable law and regulation. This White Paper is just a draft and investors should reassess the final White Paper at the time of issuance of the OV Token based on the final version. This White Paper has not been reviewed by any regulator. No regulatory authority has examined or approved any of the information set out in this White Paper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this White Paper does not imply that the applicable laws, regulatory requirements or rules have been complied with.

### **Cautionary note on Forward Looking Statements.**

This White Paper may contain certain forward-looking statements including, but not limited to, statements as to future operating results and plans that involve risks and uncertainties. We use words such as “expects”, “anticipates”, “believes”, “estimates”, the negative of these terms and similar expressions to identify forward looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the OV Token and/or the OV Platform to differ materially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason.

### **Exclusion of liability.**

To the maximum extent permitted by the applicable laws, regulations and rules, Orion Vault shall not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this White Paper or any part thereof by you.

### **No legal, regulatory, tax advise.**

No information in this White Paper should be considered to be business, legal, financial or tax advice regarding the OV Token, the OV Platform, and the sale of OV Tokens. You should consult your own legal, financial, tax or other professional adviser regarding the OV Platform and their respective businesses and operations, the OV Tokens, and the sale of the OV Token. You should be aware that you may be required to bear the financial risk of any purchase of OV Tokens for an indefinite period of time.

The tax characterization of the OV Tokens is uncertain, and each investor must seek its own tax advice in connection with the acquisition of the OV Tokens. The acquisition of OV Tokens pursuant to the sale of OV Tokens may result in adverse tax consequences to investors, including withholding taxes, income taxes and tax reporting requirements. Each person acquiring OV Tokens should consult with and must rely upon the advice of its own professional tax advisors with respect to the tax treatment of an acquisition of the OV Tokens.

You should consult with your own advisor regarding your legal, regulator, and tax position.

**Prohibition of distribution and dissemination in restricted jurisdictions.**

The distribution or dissemination of this White Paper or any part thereof may be prohibited or restricted by the laws, regulatory requirements and rules of any jurisdiction. In the case where any restriction applies, you are to inform yourself about, and to observe, any restrictions which are applicable to your possession of this White Paper such part thereof (as the case may be) at your own expense and without liability to Orion Vault. Persons to whom a copy of this White Paper has been distributed or disseminated, provided access to or who otherwise have the White Paper in their possession shall not circulate it to any other persons, reproduce or otherwise distribute this White Paper or any information contained herein for any purpose whatsoever not permit or cause the same to occur.

**Risks associated with the acquisition of OV Tokens**

**Orion Vault may not successfully develop, market and launch the OV Platform.**

Orion Vault has not yet been fully developed and additional capital funding, as well as developer and management expertise, time and effort will be necessary in order to fully develop and successfully launch Orion Vault in which various types of activities as described in this White Paper can be conducted. Orion Vault may have to make changes to the specifications of the protocol of the OV Platform or OV Tokens for any number of legitimate reasons or it may be unable to develop Orion Vault or the OV Platform in a way that realizes those specifications or any form of a functioning protocol. It is possible that there may never be operational OV Tokens or Orion Vault / OV Platform. The protocol of Orion Vault or the OV Tokens, if successfully developed and maintained, may not meet expectations of holders of OV Tokens at the time of use. Furthermore, despite good faith efforts to develop and launch Orion Vault and subsequently to develop and maintain Orion Vault and the OV Platform, it is still possible that the OV Platform will experience malfunctions or otherwise fail to be adequately developed or maintained, which may negatively impact Orion Vault and the OV Tokens.

Orion Vault will use the proceeds of the pre-sale to make significant investments to develop an operational version of the OV Platform and will subsequently continue to enhance Orion Vault's and the OV Platform's utility and value. However, Orion Vault may not have or may not be able to obtain the technical skills and expertise needed to successfully complete the development of the OV Platform and Orion Vault and progress it to a successful launch of Orion Vault. While Orion Vault has sought to retain and continue to competitively recruit experts, there may be a shortage of management, technical, scientific, research and marketing personnel with appropriate training to develop and maintain the protocol for Orion Vault. If Orion Vault is not successful in its efforts to demonstrate to users the utility and value of Orion Vault, Orion Vault may not be able to proceed with the on time launch of the OV Platform.

**The acquisition of OV Token may involve a high degree of risk.**

Financial and operating risks confronting startups are significant. The startup market in which Orion Vault competes is highly competitive and the percentage of companies that survive and prosper is small. Startups often experience unexpected problems in the areas of product development, marketing, financing, and general management, among others, which frequently cannot be solved. In addition, startups may require substantial amounts of financing, which may not be available through private placements, public markets or otherwise.

**Orion Vault may be forced to cease operations or take actions that result in a Dissolution Event.**

It is possible that, due to any number of reasons, including, but not limited to, an unfavorable fluctuation in the value of cryptographic and at currencies, the inability by Orion Vault to establish the OV Tokens' utility, complete development of Orion Vault and proceed with Orion Vault, the failure of commercial relationships, or intellectual property ownership challenges, Orion Vault may no longer be viable to operate and Orion Vault may dissolve or take actions that result in a dissolution event.

**Risks associated with the OV Tokens and Orion Vault****Orion Vault may not be widely adopted and may have limited users.**

It is possible that Orion Vault will not be used by a large number of individuals, companies and other entities or that there will be limited public interest in the creation and development of distributed ecosystems (such as Orion Vault) more generally or distributed applications to be used on Orion Vault. Such a lack of use or interest could negatively impact OV Orion Vault CODE and the utility of the OV Tokens.

**Orion Vault may be the target of malicious cyberattacks or may contain exploitable flaws in its underlying code, which may result in security breaches and the loss or theft of OV Tokens. If Orion Vault's security is compromised or if Orion Vault is subjected to attacks that frustrate or thwart our users' ability to access Orion Vault, their OV Tokens or any of Orion Vault's services, users may cut back on or stop using Orion Vault altogether, which could seriously curtail the utilization of the OV Tokens.**

Orion Vault's structural foundation, the software application and other interfaces or applications built upon Orion Vault and its services are still in an early development stage and are unproven, and there can be no assurances that Orion Vault and the creating, transfer or storage of the OV Tokens will be uninterrupted or fully secure, which may result in a complete loss of users' OV Tokens or an unwillingness of users to access, adopt, utilize and build upon Orion Vault, or its protocol respectively. Further, Orion Vault may also be the target of malicious attacks seeking to identify and exploit weaknesses in the software or Orion Vault, which may result in the loss or theft of OV Tokens. For example, if Orion Vault is subject to unknown and known security attacks (such as double-spend attacks, 51% attacks, or other malicious attacks), this may materially and adversely affect Orion Vault. In any such event, if the launching of Orion Vault will be interrupted or if Orion Vault is not widely adopted, the OV Tokens would have no utility.

**There may be occasions when certain individuals involved in the development and launch of Orion Vault may encounter potential conflicts of interest in connection with the launch of Orion Vault, such that said party may avoid a loss, or even realize a gain, when other holders of OV Tokens are suffering losses.**

There may be occasions when certain individuals involved in the development and launch of Orion Vault or OV Tokens may encounter potential conflicts of interest in connection with the sale of the OV Token and Orion Vault, such that said party may avoid a loss, or even realize a gain, when other holders of the OV Tokens are suffering losses. Holders of OV Tokens may also have conflicting tax, and other interests with respect to OV Tokens, which may arise from the terms of the OV Tokens, Orion Vault, the timing of the launch of Orion Vault or other OV Token offerings, or other factors. Decisions made by the key employees of Orion Vault on such matters may be more beneficial for some holders of OV Tokens than for others.

**Holders of OV Tokens may lack information for monitoring their holdings.**

A holder of OVNTokens may not be able to obtain all information it would want regarding Orion Vault or OV Tokens on a timely basis or at all. It is possible that a holder of OV Tokens may not be aware on a timely basis of material adverse changes that have occurred with respect to Orion Vault. While Orion Vault has made efforts to use open-source development for the OV Tokens, this information may be highly technical by nature. As a result of these difficulties, as well as other uncertainties, a holder of OV Tokens may not have accurate or accessible information about Orion Vault.

**OV Tokens have no history.**

The OV Token will be a newly formed token and have no history. Each OV Token should be evaluated on the basis that Orion Vault or any third party's assessment of the prospects of the protocol of Orion Vault may not prove accurate, and that Orion Vault will not achieve its business objective.

**If Orion Vault is unable to satisfy data protection, security, privacy, and other government-and industry-specific requirements, its growth could be harmed.**

There are a number of data protection, security, privacy and other government- and industry-specific requirements, including those that require companies to notify individuals of data security incidents involving certain types of personal data. Security compromises could harm Orion Vault's reputation, erode user confidence in the effectiveness of its security measures negatively impact its ability to attract new users, or cause existing users to stop using Orion Vault.

**The further development and acceptance of blockchain networks, including Orion Vault, which are part of a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of blockchain networks and blockchain assets would have a material adverse effect on the successful development and adoption of Orion Vault and the OV Tokens.**

The growth of the blockchain industry in general, as well as the blockchain networks with which Orion Vault will rely and interact, is subject to a high degree of uncertainty. The factors affecting the further development of the cryptocurrency industry, as well as blockchain networks, include, without limitation:

- Worldwide growth in the adoption and use of ETH, and other blockchain technologies;
- Government and quasi-government regulation of ETH, and other blockchain assets and their use, or restrictions on or regulation of access to and operation of blockchain networks or similar systems;
- The maintenance and development of the open-source software protocol of the ETH networks;



- Changes in consumer demographics and public tastes and preferences;
- The availability and popularity of other forms or methods of buying and selling goods and services, or trading assets including new means of using fiat currencies or existing networks; or
- General economic conditions and the regulatory environment relating to cryptocurrencies.

A decline in the popularity or acceptance of ETH or other blockchain-based tokens would adversely affect our results of operations.

The slowing or stopping of the development, general acceptance and adoption and usage of blockchain networks and blockchain assets may deter or delay the acceptance and adoption of Orion Vault and the OV Tokens.

**The prices of blockchain assets are extremely volatile. Fluctuations in the price of digital assets could materially and adversely affect our business.**

The prices of blockchain assets such as ETH have historically been subject to dramatic fluctuations and are highly volatile. Several factors may influence the utility of the OV Tokens, including, but not limited to:

- Global blockchain asset supply;
- Global blockchain asset demand, which can be influenced by the growth of retail merchants' and commercial businesses' acceptance of blockchain assets like cryptocurrencies as payment for goods and services, the security of online blockchain asset exchanges and digital wallets that hold blockchain assets, the perception that the use and holding of blockchain assets is safe and secure, and the regulatory restrictions on their use;
- Holders' expectations with respect to the rate of inflation;
- Changes in the software, software requirements or hardware requirements underlying the protocol of Orion Vault;
- Changes in the rights, obligations, incentives, or rewards for the various participants in the protocol of Orion Vault;
- Interest rates;
- Currency exchange rates, including the rates at which digital assets may be exchanged for fiat currencies;
- Monetary policies of governments, trade restrictions, currency devaluations and revaluations;
- Regulatory measures, if any, that affect the use of blockchain assets such as the OV Tokens;
- The maintenance and development of the open-source software protocol of Orion Vault; or global or regional political, economic or financial events and situations.

A decrease in the price of a single blockchain assets may cause volatility in the entire blockchain asset industry and may affect other blockchain assets including the OV Tokens. For example, a security breach that affects OV Token holder or user confidence in ETH may affect the industry as a whole and may also cause the utility of the OV Tokens and other blockchain assets to be uncertain.

**Loss of private key and risks associated with the wallet.**

OV Tokens can only be accessed by using an Ethereum wallet with a combination of the member's account information and private key or password. The OV Token can be stolen if the private key or password gets lost or stolen. Orion Vault and any of its employees, bodies, or contractors are not responsible for the wallet to which OV Tokens are transferred to and they are not responsible for the access and security of a wallet, for any security breach, any loss resulting from a service wallet provider, including any termination of service by the wallet provider and/or bankruptcy of the wallet provider. Anyone investing in OV Tokens confirms that they understand the working of a wallet and the related risks.

**Lack of consensus of miners and risks related to forking.**

The network of miners are ultimately in control of Orion Vault and that there is no warranty or assurance that the network of miners will allocate the OV Token to the investor as proposed by any terms. The network of miners could agree at any time to make changes to the OV Token and to run a new version of the smart contract. A group of people may take the software and modify it to accept a different set of tokens, or no tokens, which might devalue the OV Token.

**Risks related to blockchain technologies and digital assets**

**The regulatory regime governing the blockchain technologies, cryptocurrencies, tokens and token offerings such as Orion Vault and the OV Tokens is uncertain, and new regulations or policies may materially adversely affect the development of Orion Vault and the utility of the OV Tokens.**

Regulation of tokens (including the OV Tokens) and token offerings such as this, cryptocurrencies, blockchain technologies, and cryptocurrency exchanges currently is undeveloped and likely to rapidly evolve, varies significantly among international, federal, state and local jurisdictions and is subject to significant uncertainty. Various legislative and executive bodies in the United States and in other countries may in the future, adopt laws, regulations, guidance, or other actions, which may severely impact the development and growth of Orion Vault and the adoption and utility of the OV Tokens. Failure by Orion Vault or certain users of Orion Vault to comply with any laws, rules and regulations, some of which may not exist yet or are subject to interpretation and may be subject to change, could result in a variety of adverse consequences, including civil penalties and fines.

Blockchain networks also face an uncertain regulatory landscape in many non-U.S. jurisdictions such as the European Union, China and Russia. Various non-U.S. jurisdictions may, in the near future, adopt laws, regulations or directives that affect Orion Vault. Such laws, regulations or directives may conflict with those of the U.S. or may directly and negatively impact our business. The effect of any future regulatory change is impossible to predict, but such change could be substantial and materially adverse to the development and growth of Orion Vault and the adoption and utility of the OV Tokens.

New or changing laws and regulations or interpretations of existing laws and regulations, in the U.S. and other jurisdictions, may materially and adversely impact the value of the ETH virtual currency used to acquire OV Tokens and otherwise materially and adversely affect the structure or OV Tokens and the rights of the holders of OV Tokens.

**Issuance of OV Tokens May Constitute the Issuance of a "Security" Under U.S. Federal Securities Laws**

The OV Token is a utility token that has a specific consumptive use – i.e., it allows participants in OV to receive and pay value for OV services, such as verification. Due to the nature of the OV



Tokens and the manner in which they are being offered, we do not think they should be considered “securities”, as that term is defined in the Securities Act of 1933, as amended (the “Securities Act”). OV Tokens might only be distributed to “accredited investors” as defined in US securities laws and to not more than 150 non-qualified investors under the EU Prospectus Regulation.