Over the Reality

ovr

Over the Reality

The decentralized world scale Spatial Web platform

EXECUTIVE SUMMARY

OVR is a World Scale, open-source, AR platform powered by Ethereum Blockchain.

OVR makes it possible for users provided with a mobile device or smart glasses to live interactive augmented reality experiences customised in the real world.

OVR can be defined as a new standard in augmented reality experiences by placing itself as the first content browser where the user does not choose the contents but the world submits the possible experiences based on its geographical position.

OVR adopts the open source philosophy, meaning that the entire OVR community contributes to its growth, thus making the platform independent of its creators.

OVR use Ethereum blockchain to decentralise all the token exchange dynamics between the users.

OVR token is an utility token based on the Ethereum's smart contract ERC-20 standard.

OVRLands are parcels stored inside a blockchain-based ledger that make up the digital layer of subdivision of our planet into hexagons.

OVRLand token is a non-fungible token based on the ERC-721 standard that also allows decentralised possession of digital assets such as OVRLands and OVRExperiences, that superimposed on reality through the eye of a mobile device or a smart glass, give life to augmented reality experiences.

OVRLands are freely tradable among users in a decentralised fashion through the use of the marketplace OVROwner. This means that OVRLand owners can decide what kind of experience the user will experience once entered in the OVRLand.

Therefore the community has complete control over OVRLands, OVRExperiences.

AR experiences can range from static 3D content and interactive highly complex and hyper real scenes that make virtual content merge with the real world by engaging the user to a physical interaction with the surrounding world. So far, the system exploiting these experiences are mobile devices based on iOS and Android and Smart glasses such as Hololens, Magic Leap and AR low cost headset based on the holokit project.

OVR, acting as a platform, supports the current hardware available on the market and with software integrations will support all-next generation hardware launched

on the market. The platform therefore stands as a hardware-independent standard.

The OVRExperiences can be realised thanks to a Unity3D-based SDK and community users can undertake buying and selling experiences inside the platform.

Unity3D, among the leading real time 3D development environments on the market, has been chosen for its versatility, diffusion and ability to manage a cross-platform compilation of projects thus supporting mobile devices and smart glasses.

OVR implements a decentralised advertising system based on publisher/advertiser principle where the OVROwner can earn OVR token by inserting the sponsored content proposed by advertisers into the augmented reality experience.

OVR is unstoppable because, once implemented in the blockchain, no one will have the power to change the software rules, the OVRLand contents and the crypto token economy.

The moderation activity will be managed by the community itself with a reporting system with a management of blacklists maintained by the nodes.

OVR is focused on the rapid growth of the mobile AR and Smart Glasses sector and introduces the following main innovations:

- Development of a decentralised and unstoppable open source platform managed by the community with its own coin and its own ecosystem.
- Buying and selling digital assets (lands, contents, advertising) with the OVR utility token
- Development of a combined tracking system that uses GPS, computer vision algorithms and the inertial system on board the device to bring the user experience to a new state of the art of outdoor AR.
- The use of the IPFS* like protocol to decentralise the storage of 2D/3D assets by making the entire platform unstoppable and independent and remunerating the nodes that share their storage space.
- Decentralisation and community powered ecosystem

OVR, as you will realize in the following paragraphs, is disruptive for different sectors in addition to augmented reality such as:

- **Digital content monetisation**
- **Digital advertising**
- **Digital experience monetisation**
- **P2P jobs**

TABLE OF CONTENTS

1.0 The Market

1.1 Overview

In 2018 several Augmented Reality technologies were introduced on the market. Technological giants such as Apple, Facebook and Google made major investments and acquisitions increasingly aimed at implementing such technology with contents devoted to consumer market.
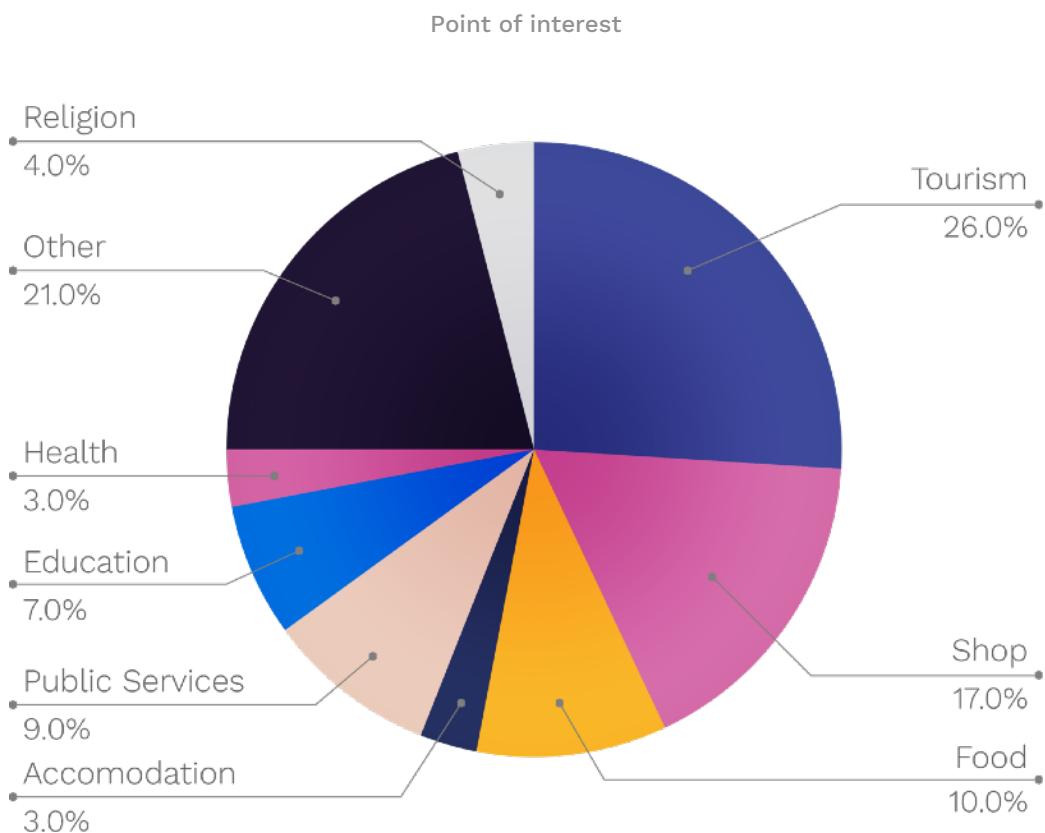
According to a recent forecast published by IDC, consumer industry will expand its position as the largest spender in AR and VR closely followed by Retail. This growth is also due to the fact that the smartphone market goes in such a direction that all the devices produced since 2018 fully support Augmented Reality. Also the market related to smart glasses technologies is growing fast and many technological companies are investing to launch a powerful and affordable product on the market.

According to IDC, the augmented reality market will reach $11 billion in 2020, while is expected to reach $137 billion by the end of 2024.

Research highlights how the investments of the most important technological giants show how these companies have understood the enormous potential of the Augmented Reality, not only as a technology, but as a new and powerful communication channel, able to convey any type of content and usable in any sector.

AR Revenue

Source: IDC

* https://www.idc.com/getdoc.jsp?containerId=prEUR146720420

Point of interest

Religion
4.0%

Other
21.0%

Health
3.0%

Education
7.0%

Public Services
9.0%

Accomodation
3.0%

Tourism
26.0%

Shop
17.0%

Food
10.0%

Source: google.com and openstreetmap.org

1.2 Market opportunities

After almost 2 years of research and analysis, we have identified the following pain points that the OVR Platform will address:

- **Mobile app ecosystem fragmentation**
- **Attention drop in digital ADV**
- **Difficulty to monetise digital assets**
- **AR as single experiences in a multitude of vertical apps**
- **AR as simple marker augmentation with low bullet point unfinished**

2.0 Addressing Market Needs

OVR is an aggregator, a community that uses a real economic system that can revolutionise AR world-scale experiences. Thanks to this system, OVR represents the solution to the needs of various market segments.

OVR aims at provide a single free augmented reality tool that allows you to live 3D quality experience contextualised in the surrounding environment.

End User - The explorer of the OVR World

NEEDS	SOLUTIONS
A single AR worldscale platform as a new 3D browser on the world	A single mobile application for smartphones / tablets / smart glasses compatible with all platforms on the market
A new advertising channel, going beyond the classic and overcrowded mobile advertising	Advertising merges coherently with AR experiences, making promotional initiatives less invasive and more engaging
Multiplayer engagement experiences in augmented reality	OVR allows realtime interaction between multiple users in the same place
Stable and geolocalised experiences in order to fuse virtuality and reality	OVR guarantees a precise positioning of 3D elements in the real world for a quality user experience and consistent with the surrounding environment thanks to the software innovations introduced
New medium to explore open knowledge	OVR will be will be a seamless and fast way to access to Wikipedia and open strest map knowledge. Informations will be delivered both by superimposing contend that through AI powered virtual assistant

Digital assets investor - The one who collects OVRLands

NEEDS	SOLUTIONS
Create passive income from digital assets	Collect fees from publishers who want to use your OVRLand for distributing their contents
Enhance the value of digital asset	The selection of the experience present on the OVRLand and the promotion aimed at bringing more visitors increases the potential resale value

Digital Media Agencies

NEEDS	SOLUTIONS
New communication channels	OVR provides a new way of conveying brand contents thanks to world scale experience of augmented reality
Technological opportunities to catch the customer's attention	Augmented reality is a fast-growing trend that is increasingly requested in brand's communication methods. OVR responds to this trend with the state of the art of augmented reality experiences
Geolocalised customers experiences	OVR is based on geolocation of contents and on their tracking inside the augmented reality experience
New investment opportunities	When acquiring strategic OVRLand the agency can associate sponsored experiences in strategic locations of interest to the brands

For the advertiser - A brand who wants to promote its product/service

OVR provides the advertiser with the opportunity to enjoy an innovative and non-congested new communication channel.

NEEDS	SOLUTIONS
Innovative communication channel	Advertising in OVR merges with the 3D experience, thus enhancing the sponsored message.
A not congested communication channel	The OVR platform, born at a time when there is no standard for augmented reality, creates a new and not over crowded communication channel
An advertising system with a transparent pricing	The decentralization of the marketplace on the blockchain allows to manage supply and demands with utmost transparency and traceability

3D digital artists - The builders of the OVR experience

NEEDS	SOLUTIONS
Global platform to sell augmented reality experiences	World scale distribution channel for AR and VR content
Possibility to receive requests for new projects in a quick and practical way	OVR Marketplace where to find OVROwners development requests
Monetize from your augmented reality experiences	By becoming an OVROwner the 3D digital artists will be able to insert advertisers' content and monetize with their experiences

OFFLINE SHOPS and Chain stores in general

NEEDS	SOLUTIONS
Provide trade proposal even at a closed shop	Experiences on an OVRLand in front of stores can stimulate users even in a closed shop
Provide interactive gamification situations	Gaming experiences or general engagement on OVRLand in front of shops become a pretext for generating store traffic
Increase the number of customers with new initiatives	The user is invited to access the store through augmented reality experiences located in strategic areas or near the store itself
Virtual assistant interactions	OVR platform will provide a plug and play virtual assistant powered by state of the art NLP AI algorithms

3.0 OVR Key Features

OVR uses augmented reality, a technology capable of adding different types of content to the surrounding environment (video, audio, 2D and 3D), creating the illusion that reality and virtuality live together in the same space.
All this in real time and from any device with a camera, such as smartphones and smart glasses. This innovation makes it possible to "trace" the elements present in the real world and add other virtual ones. The union between real and digital generates a unique merged experience.

The Augmented Reality, in this sense, generates a new dimension, a completely new media space and a rapidly growing market.

The OVR platform is made up of:
- OVR Ecosystem
- OVRLands
- Marketplace
- OVRLands: Buy, Sell, Rent
- OVRExperience: Buy and Sell
- OVRAdv: Buy and Sell

3.1 OVR Ecosystem

OVR Owner
Uses OVR token to buy the digital lands (OVRLand) and anchor an AR experience.
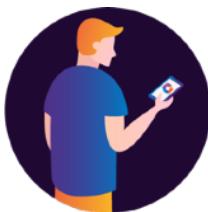
OVR Creator
Creates the 3D digital experiences (OVRExperience).

OVR Miner
Activates an OVR Node.

OVR User
Has the AR experiences.

OVR Advertiser
Uses OVR token to publish sponsored AR elements on digital lands (OVRLand).

OVR Staker
Uses OVR token to stake and vote for IPFS OVRNodes.

3.2 OVRLands

The OVR ecosystem is underpinned by a grid of hexagons covering the whole earth's surface. The hexagons are called OVRLands, have specific geographic positions and a standard dimension of 300 Square Meters. The total number of OVRLands is 1.660.954.464.112. OVRLands can be further divided in 7 hexagons allowing for even more precise localisations.

OVRlands are not only a reference system used to position AR and VR content, they are also the fundamental digital asset that will enable our community to generate the economic incentives for development and growth. OVRLands will be bought* by OVROwners, their property will be granted by a non-fungible token – ERC-721 standard – recorded on the Ethereum blockchain allowing for decentralised and censorship resistant property rights.
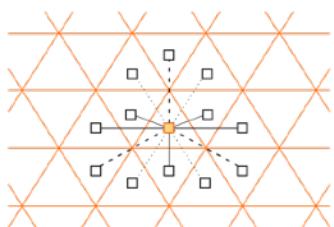
Property of OVRLands will ground the economic incentives to generate, distribute and curate high quality AR and VR content. OVRLand is a scarce and unique resource, only the private keys of the Ethereum address owning the OVRLand NFT can control it. In the case of private keys loss, the control on OVRLand would be lost forever. This would create "zombie land" that nobody would be able to use anymore. In order to overcome this issue and to facilitate the usage of OVRLand all of the OVRLand will be rentable by default at a standard rate, yet the OVRLand owner who still has control of the private keys can always actively refuse the content that is pushed to his OVRLand or ask for a higher rent fee. In this way "zombie lands" will not be an issue anymore since those will remain usable and creating an AR/VR experience on any location on the planet will not require the active participation of the OVRLand owner.

3.2.1 Why hexagons
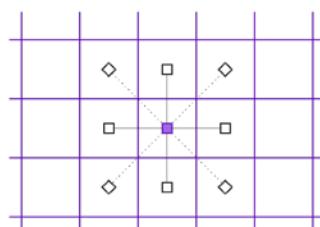
There are only 3 regular polygon tilings that can be used to cover earth's surface: Squares, Triangles and Hexagons. We chose hexagons because of two specific properties that combine well with the OVR project.

3.2.2 Neighbor Transversal
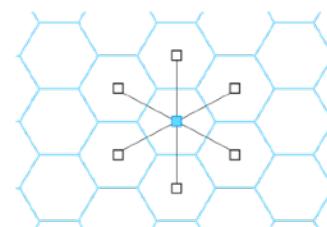
We envision multiple opportunities of interaction between neighbour OVRLands and geometry will have huge impact on those relations. Our objective is to multiply interaction opportunities while keeping those simple. Hexagons exhibit a very simple neighbourhood distribution: contact points are only on sides, never on angles, moreover all neighbours are positioned at the same distance from the center. Those qualities are not shared by triangles and squares and allow for faster and easier neighbour map calculations.
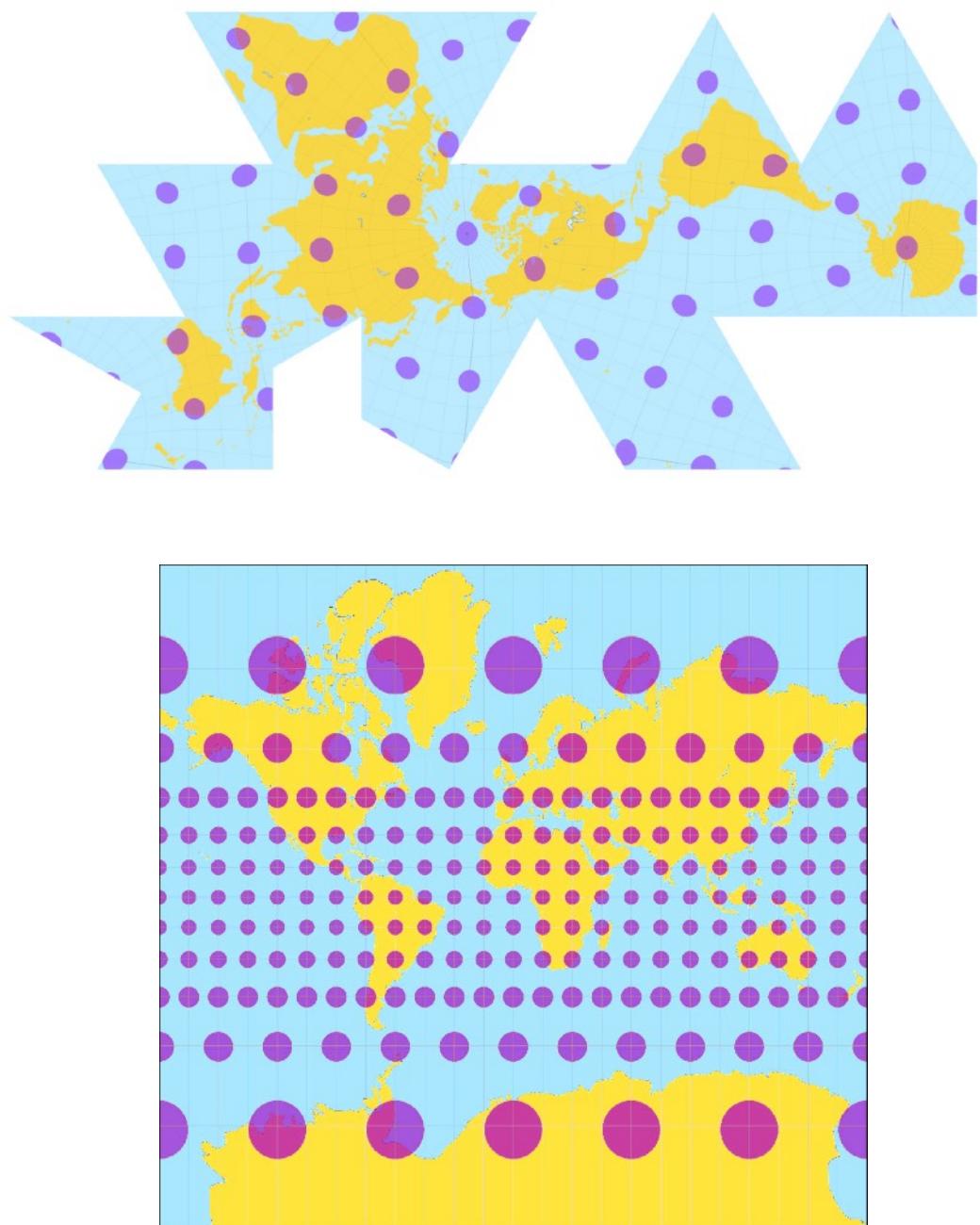

Triangles   **Squares**   **Hexagons**

3.2.3 Distortion

OVRLands are covering the whole planet and we want the same coherence between coordinates and OVRLands in all possible locations. Sounds reasonable but is not that easy! Projecting the spherical earth surface on a plane causes map distortions, indeed most classic earth map projection techniques such as Mercator creates huge distortions while we are moving towards the poles.

Tiling the earth's surface with hexagons allows for Dymaxion projection which minimises distortion.

Dymaxion VS Mercator with Tissot's indicatrices of deformation

3.2.4 OVRLands Natural Language URI

Humans have an exceptional ability to process natural language, generally at the age of 4 a child can already recognise and remember more than 5.000 words and this number grows to a range between 20.000 and 35.000 for an adult. The same ability does not extend to numbers, our cognitive functions are not wired to recognise and remember not even dozens of number sequences.

OVRLands are defined by their geographic position, a pair of numbers defining latitude and longitude. In order to align with the aforementioned human cognitive abilities we developed an algorithm – that will be open source – capable of mapping the pair of coordinates of each single OVRLand with a unique triplet of english words (e.g. blue. sky.dream).

Each one of the single 1,66 trillions of OVRLands will be defined by unique an easy to remember triplet of english words. To achieve this result we used a word list extracted by Google N-Grams containing 20K of the most commonly used english words.

3.2.5 Private Utility Layer and Public Utility Layer

OVRLand property is the fundamental substrate for the whole OVR token economics. Total control on OVRLands content is granted to OVROwners as it underpins the existence of the economic incentives of our ecosystem. This space is defined as the Private Utility Layer.

OVR aims to become the reference decentralised platform for AR content, with such a vision while establishing the Private Utility Layer we also need to enable the creation of contents that have a public scope and are not privately owned.

There are contents that have public utility but cannot be created and maintained by private owners of single OVRLands, both for lack of coordination between individual owners and lack of sufficient economic incentives. Some examples of such contents could be: information on public buildings and services, infrastructures, public institutions. For this reason we decided to create the Public Utility Layer, it will coexist on the same coordinates of the hexagons of the Private Utility Layer but will not be owned by any entity.

Public Utility layer will also be the kickstarter for the utility of the OVR Platform, we will populate it with the whole Wikipedia's geolocalised knowledge corpus. Informations will be presented to the final user both by using AR superimposition and by a virtual assistant powered by state of the art NLP technologies* trained on Wikipedia knowledge corpus.

Wikipedia knowledge base, virtual assistant AR Asset and trained Neural Network for NLP will be maintained by OVR Nodes**.

*Please refer to chapter OVRAssistant for more details.
**Please refer to chapter OVRNodes for more details.

3.3 Marketplace

The OVR marketplace is decentralised and managed by smart contracts. The main function is to facilitate the intersection between supply and demand for every digital asset that can be traded on the OVR platform.
All transactions are handled in OVR tokens and the smart-contract ensures decentralised assets exchange.

3.4 OVRLands: Buy, Sell, Rent

BUY

After the closing phase of the ICO using the OVRs ("token"), the OVRLand can be purchased on the OVR Marketplace through an ascending price auction with a starting price of 10 USD*. If an OVRLand has already been purchased and has been put on sale on the marketplace, it will be possible to buy it at the proposed value. OVRLand is compliant with the ERC-721 standard, thus the token can also be stored and sold peer-to peer on platforms outside the OVR Platform.

SELL/RENT

The OVROwners can sell or rent their OVRLands at any time using the marketplace features. The OVRLands are sold or rent with the existing OVRExperience.

* Base price of OVRLand shall be modified after the project gained traction.

3.5 OVRExperience: Buy and Sell

Community users can develop AR experiences with SDK OVR based on Unity3D and can then decide to sell it on the marketplace.
The asset storage takes place on IPFS OVRNodes.
The amount desired is passed on from OVR Owner to Content creator upon association OVRLand->OVRExperience. The smart contract guarantees the correctness of the transaction.
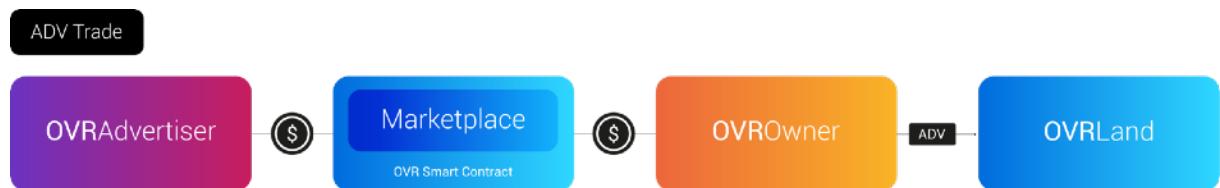
3.6 OVRAdv: Buy and Sell

The functions offered by the SDK contain the objects required to manage promotional items such as 3D virtual banners or, generally, plans with dynamically assignable textures to give the advertisers the possibility to insert their promotional elements.
The marketplace manages the buying and selling of these spaces on a time basis or on performance.

4.0 OVR Tech

4.1 Augmented Reality Technologies

Augmented Reality is a technology capable of superimposing various types of contents (video, audio, 2D, 3D) in the surrounding environment. All this happens in real time and from any device equipped with a camera. This innovation actually makes it possible to "track" the elements present in the real scene and virtually add others. The spectacular combination of real and digital generates a unique experience.

4.2 Persistent AR Experience and Shared Experience

For persistent AR, we mean the possibility for a user to relive the same augmented reality experience in time and in the surrounding world. This is possible thanks to a first environmental scan saving.
The ability to reload the environment mapping allows a shared experience to be obtained where users see the virtual elements positioned in the same way in the space.

4.3 OVR Geo Positioning and Tracking

4.3.1 GPS Issues

The OVR app aims at creating various live AR experiences for the user, depending on where they are. For this reason the app uses the GPS device data to track the user's geographical position.
The data obtained from the GPS report the geographical coordinates and the relative accuracy level. The value of this last data does not allow a precise positioning of the AR contents. Moreover, in addition to the metric accuracy error, there is a percentage uncertainty not guaranteed in the location; this causes a potential reception of anomalous data, which also deviates a few tens of metres from the actual position. An augmented reality experience that relies only on GPS for anchoring content is approximate, uncertain, and not sufficiently stable.

4.3.2 New Positioning Technique – The Fourth Dimension

The first development phase focused on the matching between localisation and coordinates of the hexagonal OVRLand, and then moved on to work out a method for positioning contents in an augmented reality beyond the GPS limits.
The logical concept is to merge two positioning technologies: SLAM, with high local accuracy, and GPS, which works at a global level, so as to identify similar data and cancel anomalous data.
SLAM is a technology that, thanks to the use of a camera, recognises key elements of the framed environment and can create a three-dimensional point map. This map allows you to calculate the camera position very precisely compared to other physical objects around it. The conceptual innovation that led us to an optimal result was to understand that, SLAM technology makes it possible to add a variable to the GPS information that was not usable so far: **time**.
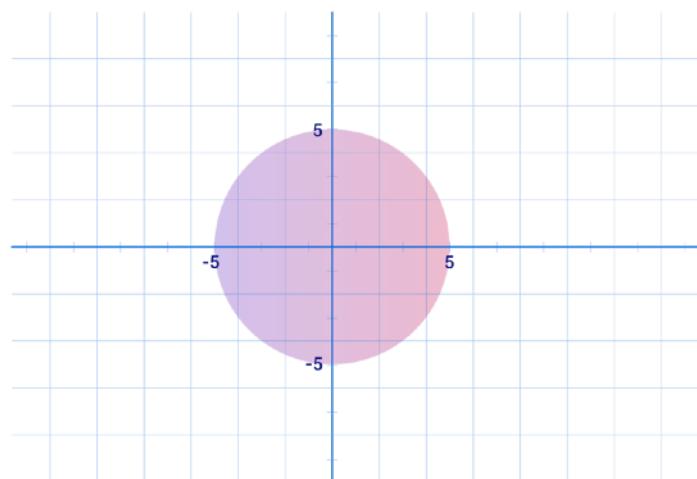
In fact, the system detects GPS data recorded at a specific point in time and compares them with those surveyed at the later moment. This is made possible by checking any modification of local positioning data returned by the SLAM technology.
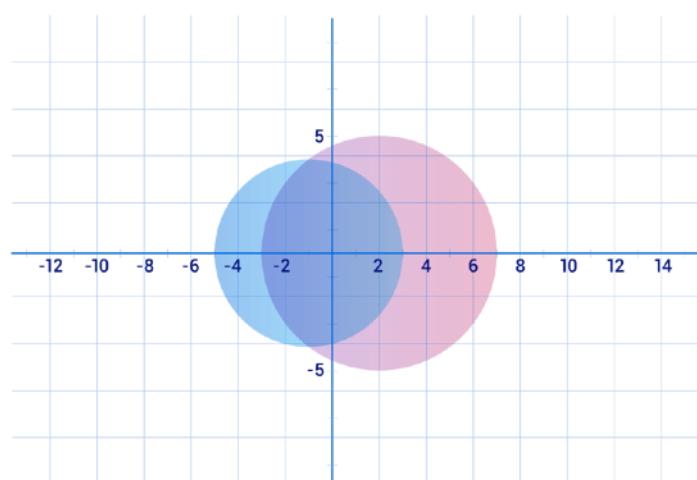
Example

We assume that the user is using his device in a given geographical position. Following the activation of the GPS and the framing of the surrounding environment by means of the camera, two data blocks are identified: the position in geographical coordinates, and the position of the camera relative to the framed environment.

We assume latitude α, longitude β and a position related to the surrounding environment equal to coordinates in meters x = 0 and y = 0 (point of origin). The GPS reports a hypothetical accuracy datum of 5 meters.
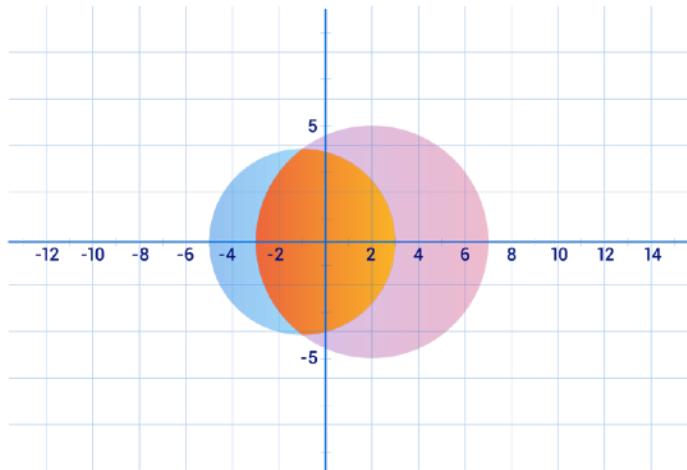

If the user moves two meters to the right, given the accuracy of the SLAM technology, the coordinates of the position become x = 2 and y = 0.

The expectation is that the GPS also registers the same position but, given its inaccuracy, notifies a shift of one meter in the opposite direction with an accuracy of 4 meters.

The purple area represents the expected GPS data, the blue the recorded ones.

Analysing them independently we have no possibility of understanding which of the two data shows the information of the correct user coordinates, but intersecting the uncertainties of the two data we identify a more accurate uncertainty area (orange area). The geolocalising datum is then approximated at the centre of the intersection zone. The consideration of more than two recorded moments allows to constantly improve the determined position provided by the GPS.

4.3.3 Target and Scanning

This technology makes it possible to better compensate for the inaccuracy due to GPS geolocation technology without additional tools, technologies or methodologies that help to correctly position the virtual elements in the world. Two possible techniques have been identified. The first involves the use of a graphic "Target" recognisable by the system. Given its size, position and exact inclination in the world, the "Target" can provide the device with its correct geographical coordinates.

We assume that we are in a historical square where, on a façade of a building, a fresco has been painted, or, in front of the door, at a shopping centre where a sign is affixed.

Framing one of these images, if previously uploaded to the system, the app is able to recognise these images thanks to the use of computer vision algorithms (SIFT / SURF).

These technologies provide the inclination with which we are framing the "Target" images and, consequently, the direction in which the user is positioned relative to the latter. By also entering the "Target" image size, you can calculate the exact distance between the target and the device (user). In this way we obtain the

relative distance vector (offset). Adding the information previously obtained, that is the geographical position of the image and its inclination, to the relative distance vector you can easily calculate the exact geographical coordinates of the device. Once these coordinates are obtained, SLAM technology proceeds with anchoring the contents, which can be positioned at the desired point with higher precision compared to the information given exclusively by GPS.

The second methodology for the recognition of the user's coordinates consists of the prior scanning of the place of interest by recording the points that the SLAM uses to anchor the contents.

To use this technique, a figure is required (OVRLandscanner) that goes to the physical place during the development phase and that, through the OVR app, scans the surface where you want to show the experience. The information collected (position and scanned points) provide a precise map of the environment in which the augmented reality contents will appear.

4.3.4 Next Development

New generation GPS, GNSS, is already present on the market and represents a possible strengthening of the methods adopted for OVR. SLAM technology is in constant development and the implementation of 2D image recognition or 3D models would improve the AR experience. Bluetooth Beacons, on the other hand, will allow accurate for location recognition even in places where GPS does not provide accurate data, such as building interiors.

4.4 The OVR SDK and Unity 3D

OVRContent are developed in the Unity3D* and the OVR SDK permits to implement the OVR platform functionalities.

OVR SDK permits to manage:
- OVRUser Wallet transactions calls
- Preview the OVRLands spaces on the editor to manage the correct 3D assets positioning and spatial borders
- Manage AR persistence
- Manage AR shared experience
- Interactions with gateways like infura** and oracles
- Manage resources limits provided by the OVR client app
- Desktop side OVRContent preview
- Avatar integration and knowledge management

4.5 OVR Land scanner

The OVR SDK allows the content creator to define the tracking modalities of the AR experience. The most precise mode provides a pre-scan of the OVRLand with the help of the mobile OVR app. The OVRLand scanner is a community user paid by the OVRLandOwner to scan with the assigned OVRLand. This service is purchased through a marketplace where the OVROwner defines the willingness and the price reserved for the interested OVRLand scanner.

4.6 IPFS and OVRNode

OVR assets are hosted by the OVRNodes powered by a P2P IPFS*** protocol ensuring storage decentralisation. In the first phase there will be 10 master-nodes dislocated in different geographical areas. At lunch of the platform nodes will be subsidised by OVR. Subsequently an update of the OVRNode software will introduce the automatic remuneration of the nodes based on the storage and the band-with shared by private users. The OVRLand Owner will pay an hosting fee for hosting the content on IPFS, such a fee will be distributed on the nodes proportionally to the resources deployed.
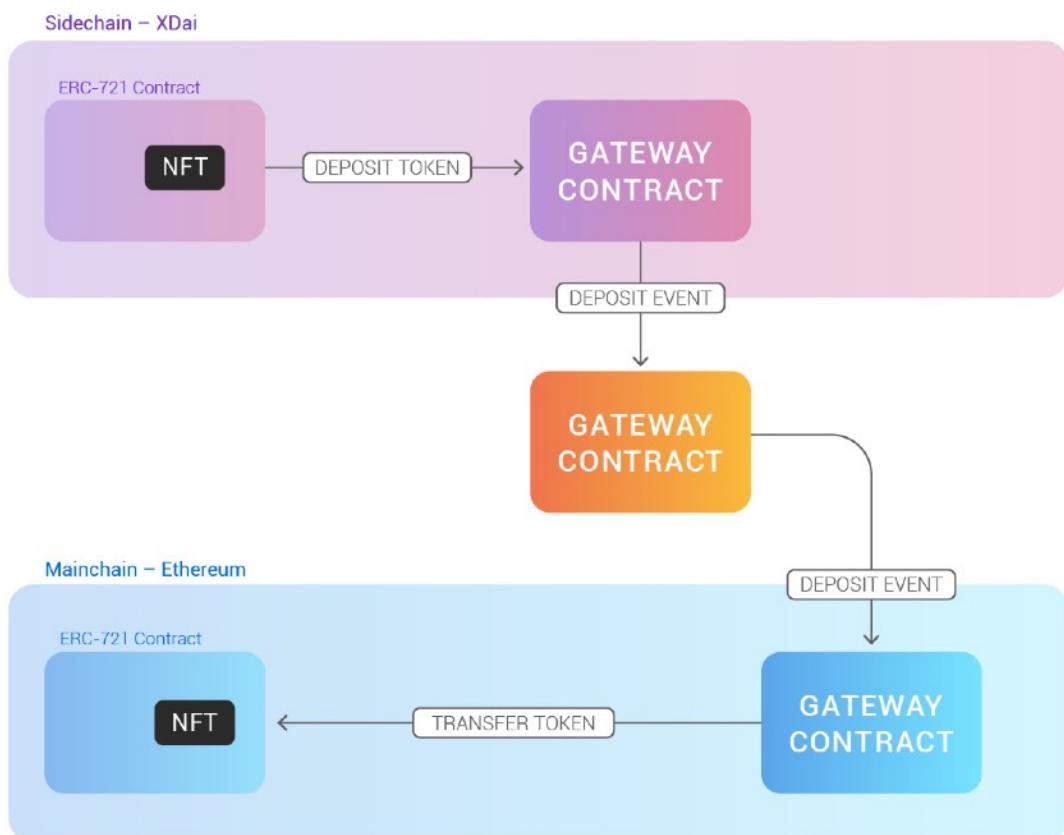
* https://unity3d.com/
** https://infura.io/
*** https://en.wikipedia.org/wiki/InterPlanetary_File_System

4.7 Sidechain

We selected Ethereum to deploy our decentralised platform because Ethereum already won the race to become the foundation of Web 3.0. Ethereum remains the most robust smart contract platform in existence. Of the top 100 tokens by market cap, 96% are built off Ethereum. Of the top 1000 tokens, 89% are built off Ethereum*.

Ethernode reports over 9,000 active nodes and looking about the community of developers, Truffle, a development environment ad testing framework, is downloaded with an average of 100,000 a month with a 1M of lifetime downloads since its release in May 2015. However today, Ethereum is limited in terms of throughput (approx. 25tx/s) and gas costs are prohibitive for a high volume of transactions. Due to this scalability and costs limits we decided to integrate in OVR project a sidechain technology bridged to the Ethereum mainnet. NFTs representing OVRLands will be directly minted and exchanged on XDai eliminating gas costs. It will always be possible to transfer minted NFTs to the Ethereum mainchain and trade those on marketplaces such as OpenSea. The security is guaranteed by the Ethereum thanks to bridging smart contracts that permits to securely exchange tokens from the mainnet to the sidechain and vice versa.

Blockchain infrastructure

Sidechain – XDai

ERC-721 Contract

NFT — DEPOSIT TOKEN → GATEWAY CONTRACT

DEPOSIT EVENT

GATEWAY CONTRACT

DEPOSIT EVENT

Mainchain – Ethereum

ERC-721 Contract

NFT ← TRANSFER TOKEN — GATEWAY CONTRACT

* https://coinmarketcap.com/
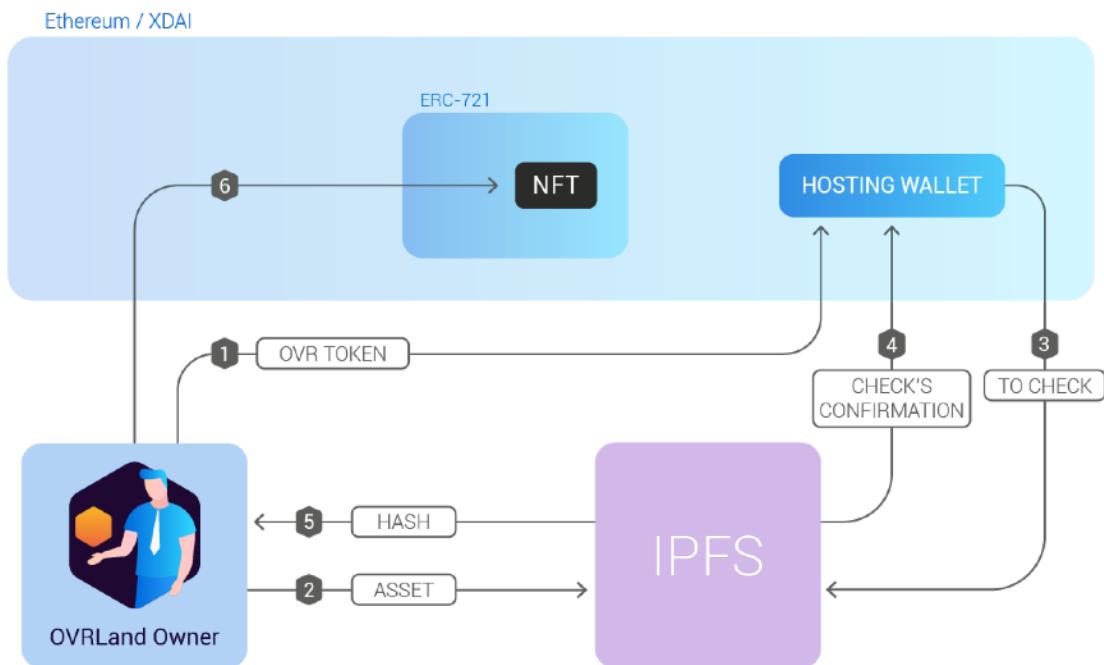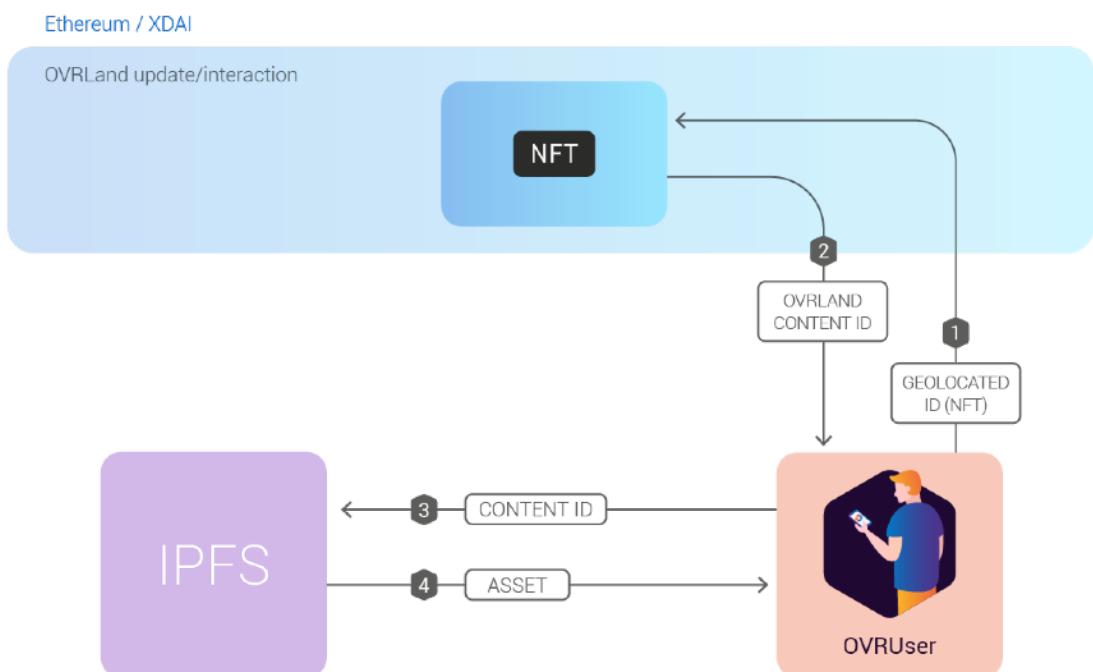
Thanks to the XDai sidechain the mobile experience is enhanced removing the friction subject to blockchain and fee mechanics understanding. OVR users will have a user experience similar to the web 2.0 in this way improving mass adoption.

** Please refer to chapter Token Economics for more details.

Blockchain infrastructure – OVR Owner
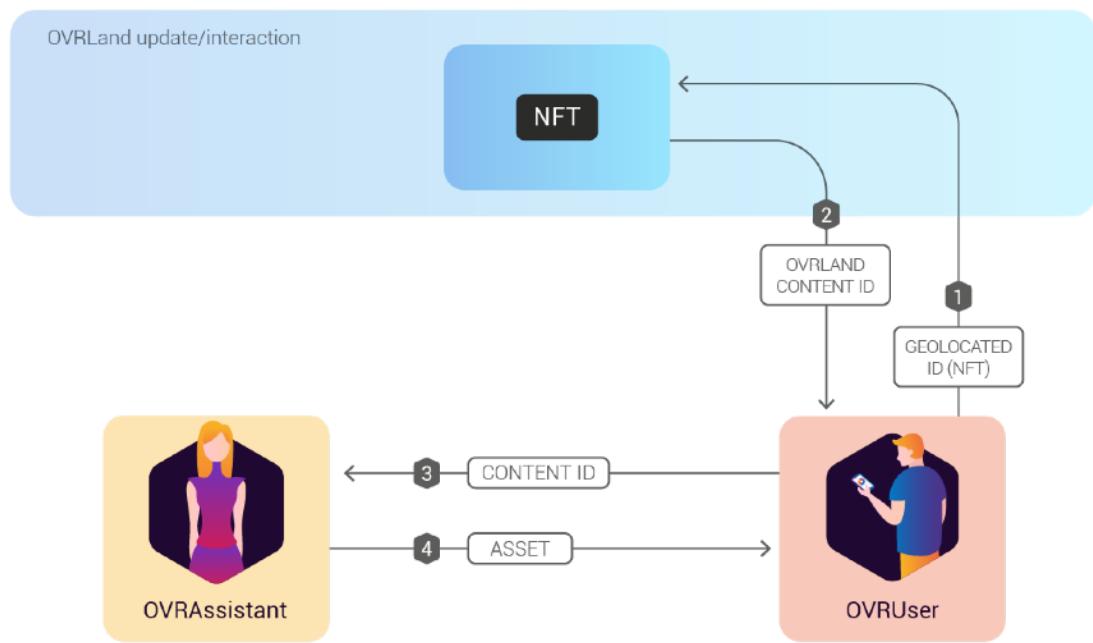
Blockchain infrastructure – OVRUser (private)

Blockchain infrastructure – OVRUser (public)

Ethereum / XDAI

OVRLand update/interaction

NFT

OVRLAND
CONTENT ID

GEOLOCATED
ID (NFT)

1

2

3 CONTENT ID

4 ASSET

OVRAssistant

OVRUser
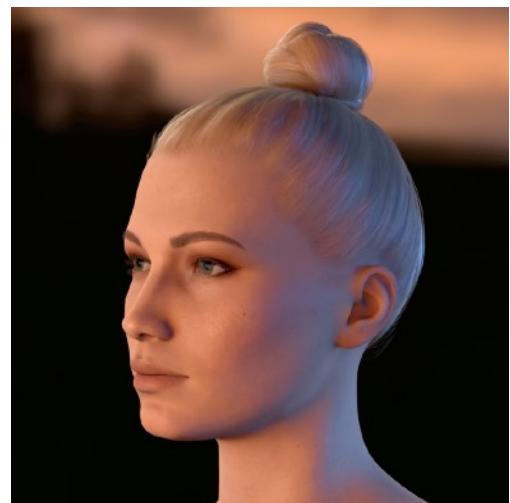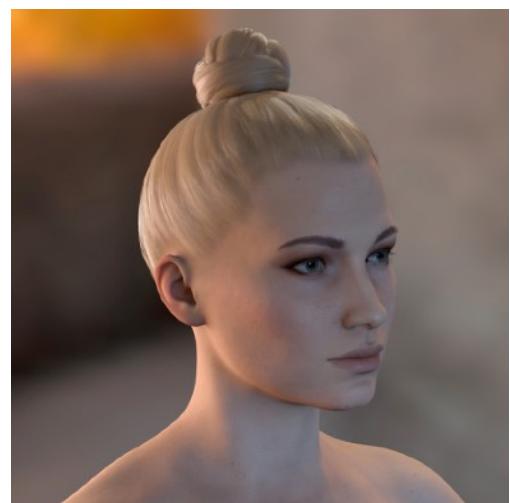
4.8 OVRAssistant, the Plug and Play AI avatar

4.8.1 What is the OVRAssistant

The OVRAssistant is a 3D realistic human avatar who use artificial intelligence, speech recognition and speech synthesis to give geospatial contextual informations with a neural network trained on Wikipedia corpus and a programmable knowledge managed by the OVRLand owner.

The way the OVRUser can interact with the Avatar is by voice. Some examples of the OVRAssistant interactions are: answering questions, guide the user to POI (Point of interests) near him, move himself on the OVRLand, change his position based on the OVRUser activity, invite the OVRUser to follow him, change face expressions, point in a direction, navigate a user inside a shop.
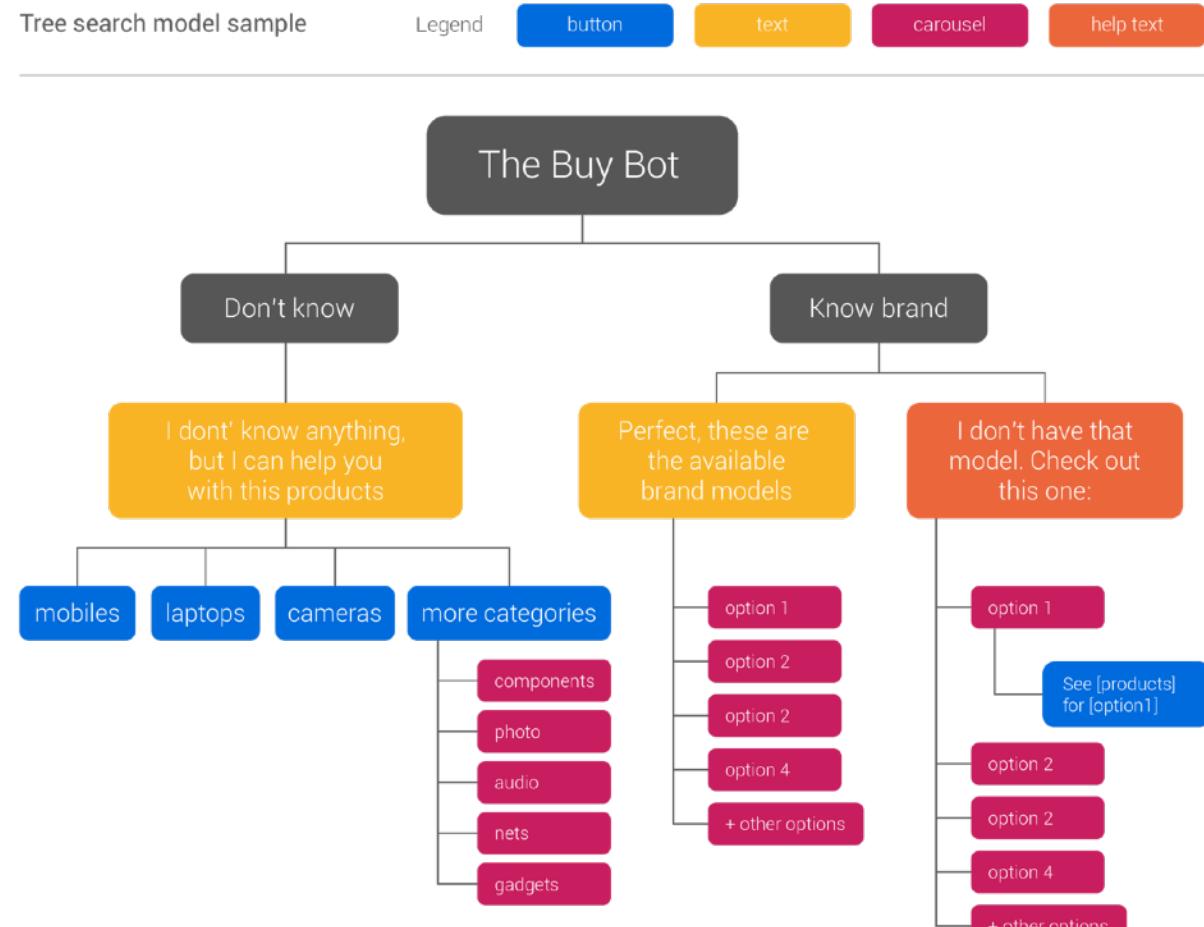
The OVRAssistant appears superimposed on the current view of the real world like the augmented reality experiences and can coexist with the OVRContents anchored to the OVRLand.

The virtual assistant will be powered by text to speech and speech to text algorithms, interactions will be by spoken natural language, no typing will be required. Virtual Assistant's intelligence will be powered by an ensemble of different NLP technologies that can be used both independently or jointly:

- **Tree search model**: this is the simplest and most common NLP technique used to power a virtual assistant, questions and answers are structured inside a nested tree structure and the Virtual assistant exploits such an hardcoded knowledge to interact with the user.

Sample of tree search model.

- **Local pattern recognition Question Answering System**: OVR uses state of the art NLP algorithms built on BERT*, a deep neural network developed by Google AI. BERT is the first deeply bidirectional, unsupervised language representation, pre-trained using only a plain text corpus on the whole English Wikipedia corpus. Pre-trained representations can either be context-free or contextual, and contextual representations can further be unidirectional or bidirectional. Context-free

models such as word2vec or GloVe generate a single word embedding representation for each word in the vocabulary. For example, the word "bank" would have the same context-free representation in "bank account" and "bank of the river." Contextual models - like the one used by OVR - instead generate a representation of each word that is based on the other words in the sentence. Such an architecture reaches super-human performances on open Q&A tasks. An example of BERT's performance on the open Q&A benchmark dataset for NLP developed by Stanford University:

Stanford Question Answering Dataset (SQuAD)

Passage

Super Bowl 50 was an American football game to determine the champion of the National Football League (NFL) for the 2015 season. The American Football Conference (AFC) champion Denver Broncos defeated the National Football Conference (NFC) champion Carolina Panthers 24–10 to earn their third Super Bowl title. The game was played on February 7, 2016, at Levi's Stadium in the San Francisco Bay Area at Santa Clara, California.

Question: Which NFL team won Super Bowl 50?
Answer: Denver Broncos

Question: What does AFC stand for?
Answer: American Football Conference

Question: What year was Super Bowl 50?
Answer: 2016

OVR AI Virtual Assistant will be Plug & Play, Virtual Assistant's interactions can be fully customised by simply uploading a text file containing the knowledge that need to be delivered in the specific circumstance. Both the Text to Speech and the NLP technologies are already functional on the MVP app. The features will be under continuous development in order to improve ease of configuration by the owner and vastness of possible interactions between the Virtual Assistant and the final user.

*https://arxiv.org/abs/1810.04805

5 Token Economy

The OVR token is a utility token based on the ERC-20 standard, and acts as an exchange medium in the whole OVR ecosystem.

The token makes it possible to fully leverage the Ethereum Blockchain and easily integrate with the existing infrastructure (i.e. wallets & exchanges).

5.1 Two kind of tokens, one ecosystem

OVR Token Economics is based on the utilisation of 2 different kind of tokens, OVRToken and OVRLand. OVRToken is a fungible token (ERC-20) that will be distributed during the IBCO and will be the only mean of exchange of value inside the platform. The OVR Token is used to interact with the platform in the following ways:

- Governance;
- Buy OVRLand;
- Stake for nodes and liquidity mining;
- Buy products on OVR marketplace to create your own OVR experience;
- Pay an OVRCreator to build an OVRExperience for you;
- Get paid in OVR by users that want to interact with the experience;
- User may pay to make the experience start;
- User may pay to buy products from OVRExperiences;
- Get paid by advertisers;
- Virtual space rent;
- Pay per view/interaction;
- Pay for virtual goods;
- Use all services present on the OVR platform and marketplace.

OVRLand is a **non-fungible** token (ERC-721) which will represent the ownership of Virtual Lands. The first opportunity to use OVRTokens will be the OVRLands acquisition*.

5.2 Token Economics

All of the economic activity inside OVR will be based on OVRToken exchange, funds for the kickstart of the platform and its community will be mainly based on the IBCO and the equity sale. The other form of financing for the first development of the community will be the OVRTokens collected from the OVRLand distribution, such funds will be fully used for Users and OVROwner acquisition*.

Long term financial sustainability of the platform will be granted by three different and uncorrelated token streams:

- Exchange Fees:
  OVRLand exchange fees: every time a OVRLand NFT is exchanged a 5% fee is applied to the transaction value. OVR Content exchange fees: a transaction fee of 5% will be applied on all OVR Asset exchange.
  OVR Publisher exchange fees: a transaction fee of 5% will be applied to all revenues generated by leasing out OVRLand to publishers and advertisers.

- **In-app purchases:**
  Users will be able to buy skins and special virtual clothes for their avatars, access to private virtual rooms, tickets for virtual events or credits to participate to AR/VR games.

- **IPFS Private Utility Asset Hosting fees:**
  AR and VR assets will be stored on IPFS, nodes hosting the assets will be remunerated by OVRLand Owners with OVR Tokens. Placing Private Utility Assets on OVRLAnds will have a cost of 1$ per month payed in OVR tokens - per month with a cap of 100 Mb for each Land, half of the collected tokens will be used to remunerate the IFPS service providers, the other half will be used for:
  - remunerating the network maintainers,
  - developing the platform software,
  - constantly expanding the user-base.

Please refer to chapter OVRLands Token First Acquisition Mechanic for more details.

6 OVR Nodes and staking

6.1 OVR Nodes

OVR is based on two main protocols, Ethereum and IPFS. While Ethereum is the base layer granting the ownership of OVRLand and the circulation of the hard capped OVRToken, IPFS will allow for decentralised storage of the OVR Experiences.
In order to grant AR assets availability, bandwidth and low latency to the final user, OVR designed an incentive system for the OVR Nodes – IPFS maintainers – and its stakers. Staking will grant a vested interest of the nodes and of the voters on the performance of the network.

In order to operate an OVR IPFS Node the minimum direct staking requirement is 500.000 OVR. OVRToken owners that do not directly operate an OVR IPFS Node will be able to vote for their preferred node by staking their tokens to the chosen Node

Nodes will be scored by two metrics with 50% weight each:
- The number of tokens directly and indirectly staked to the node
- The resources deployed by the node in terms bandwidth and latency

During the first 3 years from the launch of the platform OVR will grant rewards to the Nodes and to the stakers by using a fund that has been reserved from the Hard Cap total emission*, no inflation will be created in order to subsidise the Nodes and Voters staking.
Subsidy from OVR will be gradually replaced by hosting fees distributed to the nodes and to the voters/stakers while the platform is growing.

Rewards granted to OVRNodes for the first 3 years will be 6% APR of their staking plus a bonus depending on their ranking position.
Rewards granted to OVR Voters/Stakers for the first 3 years will be a 5,5% APR.

6.2 Lock-Up and additional developments

In order to maximise nodes and stakers on-boarding, no lockup will be required during the first year. Later a voting pool system inspired to Dan Larimer's voters proposal** will be adopted in order to avoid the risk of exchanges and in general actors with no direct interest in the long term decentralised growth of the platform to overtake the IPFS Nodes.

*Please refer to Public Sale chapter for more details on the reserved tokens to subsidise nodes and stakers
** https://medium.com/@bytemaster/blockchain-governance-proposal-470478e42686

6.3 OVR Core Team

All of the OVR software will be completely opensource and the community will be invited to contribute, despite this we're aware that in order to maintain quality, throughput and complete independence from industry sponsors in an open source project, the project itself needs its independent funding source. For this reason we budgeted a minimum of 500 K per year, covering expenses for 10 FTE developers that will be financed by the above mentioned continuous funding streams.

6.4 OVR IBCO

Traditional ICOs reached their peak of adoption in late 2017 and during the bear market lost most of their value creating huge damage to token holders and cryptocurrency ecosystem in general. The new paradigm combined with the liquidity provided by immediate access to secondary markets during the bull run created the perfect storm of hyper-valued tokens ready to explode. The bigger problem with ICOs is that the Utility Tokens that have been sold, in 99% of the projects, had no real utility, at least not in the near future... those were only used as a means for raising funds. Since there was no way to use them they became a purely speculative asset blindly replicating Bitcoin and Ethereum market swings with a very high Beta. The only tokens that were able to maintain their value were the ones that actually had a utility, real use cases to be spent, BAT and BNB are examples of such tokens. Despite last two years price dynamics, we strongly believe that utility tokens are a true revolution creating a new form of financing for crypto projects, an hybrid between equity and sales that opens up a world of new opportunities both in finance and governance.

Another strong limitation of ICOs was implied market cap and lack of liquidity on exchanges: what usually happened was that the project aggressively marketed their token at a fixed price then later on quoted the token onto a centralised market providing a small percentage of what was raised as liquidity and using

market makers to create fake liquidity. This process made the token very sensitive to even the smallest sale pressure and created the classic price dump chart that could be observed on 99% of ICOs.

In order to avoid this situation OVR will raise funds with a new fundraising primitive: Initial Bonding Curve Offering (IBCO). There will be no pre-determined price for the OVR token, token price will be determined by its demand following a Bonding Curve, if there is no demand the price will stay low, if there's demand the price will grow and tokens will be minted, in this way price discovery is immediately entrusted to the market. But that's not all, tokens will be distributed through the Bancor Protocol* the majority of the funds raised will stay on the curve ensuring liquidity for sellers and collateral (funds raised) withdrawal will be regulated by a smart contract from Aragon's DAO framework. Contributors and subscribers will continuously be able to both buy and sell from the bonding curve avoiding the illiquidity problem that traditionally afflicted ICOs and centralised exchanges for long tail assets.

Beside this, in order to sustain the price of the OVRToken other three strategies - described in the following chapters - will be used: double purchasing power of the token over other means of payment for OVRLand auction; cashback policy on the first 9 months since the start of the auction; rewards for staking to the IPFS Nodes and liquidity mining.

*https://support.bancor.network/hc/en-us/sections/360002084771-Whitepaper-

6.4.1 OVRLand emission

OVRLand emission will run until the last one of the 1.6 trillion hexagons (OVRLands) covering the planet will be minted.
The assignment of OVRLand is based on a bidding war where every bid extends the period of closing of 24h. The first minimum value is fixed at 10$* with a 100% increment on the last bid value for every following bid. This method will allow for fast and reliable price discovery.
Considering the centrality of OVRLand in OVR ecosystem we engineered OVRLand acquisition in order to minimise friction and to incentivise OVRLand acquisition by OVRToken holders.

To minimise friction it will be possible to buy the OVRLand with a wide range of means of exchange including Fiat (USD, EUR, RMB with an in app purchase), ETH, DAI, USDC and OVRTokens.

Buyers using OVRTokens instead of other means of payment will be incentivised by two distinct policies:

Double purchasing power over Fiat, ETH, DAI, USDC; the smart contract minting the NFT representing OVRLands will always assign double purchasing power OVRTokens over all the other means of payment, so for example in order to equal a

10$ OVR bid the ETH payer will need to use 20$ worth of ETH. For the first 9 months, the smart contract minting OVRLand NFTs will consider the value of the OVRToken with a floor of 0.1 USD. Such a price will only be applied if the market price for OVR is less than 0.1 USD. This will also protect the value of the token in its infancy since in case the OVR Token get devaluated on the market, - assuming demand for OVRLands - the fixed and double purchasing power of the token over the other means of payment will create an arbitrage pressure that will drive the value of the token up again.

Cashback Policy: During the first 9 months from the start date of the public sale, OVRLand acquisition will be incentivised by a decreasing cash back policy. For every OVRLand purchase, after a 30 days lockup period, OVRTokens will be returned to the buying address with a decreasing ratio. Cash back does not include Gas Fees paid in OVR. Cash back will be applied to the first N lands sold in that month, please refer to the top banner on the land auction page.

* Base price of OVRLand shall be modified after the project gained traction.

Cash Back Coefficients:
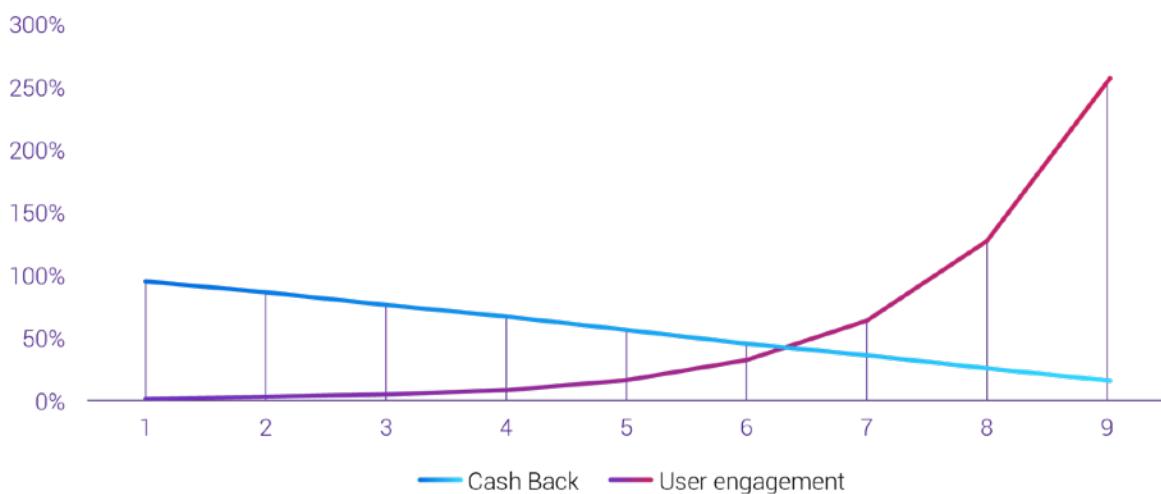
Month 1: 95%	Month 4: 65%	Month 7: 35%
Month 2: 85%	Month 5: 55%	Month 8: 25%
Month 3: 75%	Month 6: 45%	Month 9: 15%
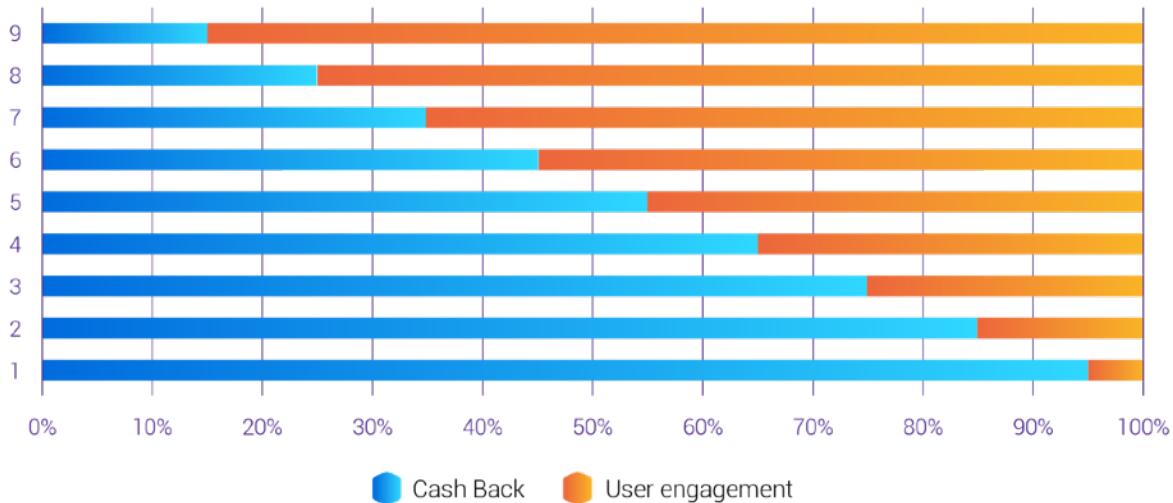
Cashback policy will create a very strong incentive to utilise the OVRToken for the OVRLand acquisition subtracting liquidity from the market and avoiding the risk of price dumps.
The 9 months window of the cash back policy will also allow for the token economics ecosystem to develop thus further supporting the OVRToken value with its increased utility.

OVRTokens not redistributed to OVRLand acquirers will be invested in customer acquisition campaigns. Such a redistribution policy will guarantee a gradual shift from sustaining OVRLand purchase to sustaining OVR ecosystem and user adoption.

6.4.2 OVRLands Token After First Acquisition

A user can buy an OVRLand owned by another user through the decentralised marketplace following the dynamic of demand and supply. In this case there will be only a fee (5%) applied on the transaction and not redistribution activities.

6.4.3 OVR Token Rewards
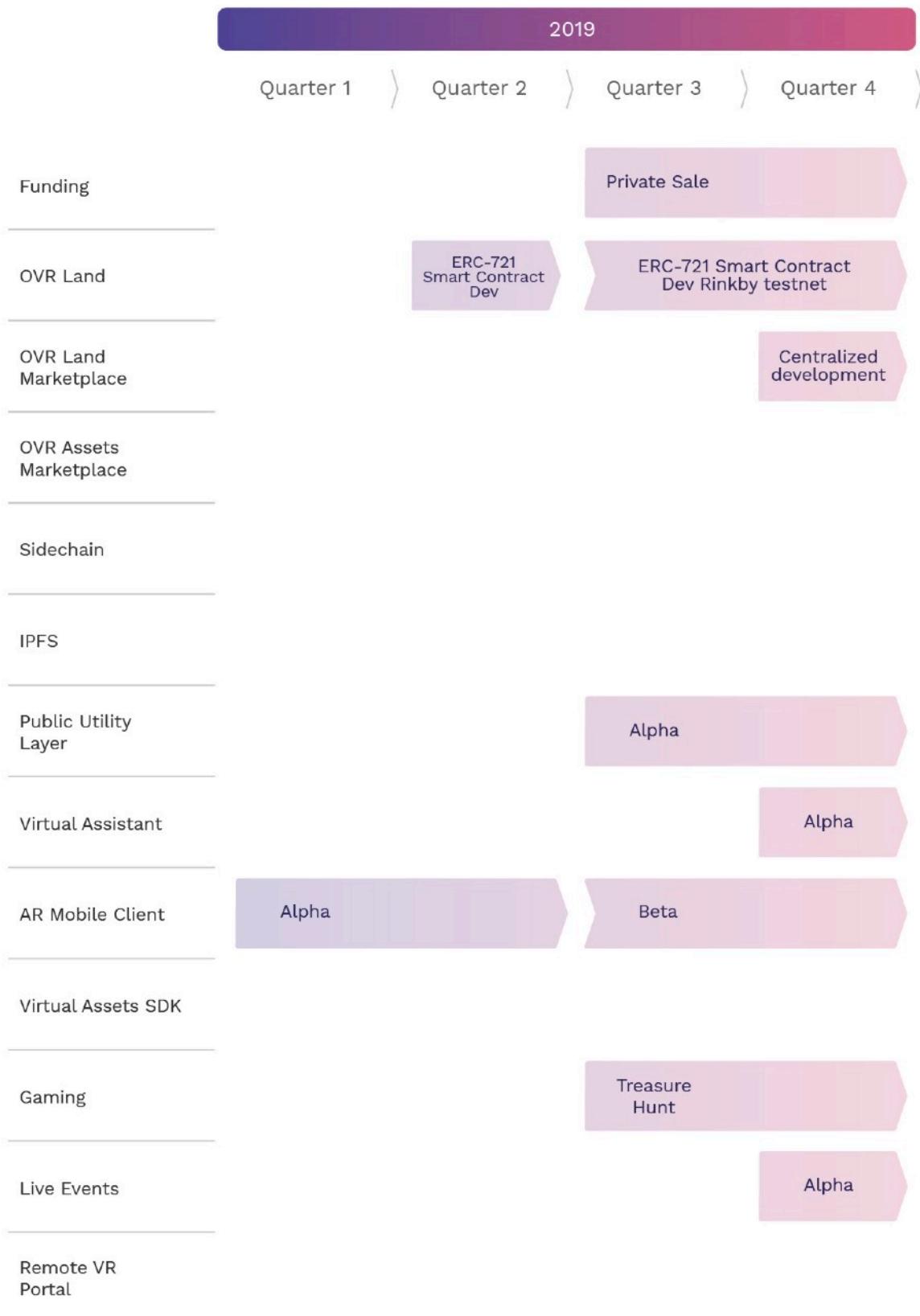
The OVR Token will also be the way to stimulate the growth of the OVR platform, rewarding users based on their interaction and value added to the platform. Token rewards will also decrease over time as the OVR platform grows.
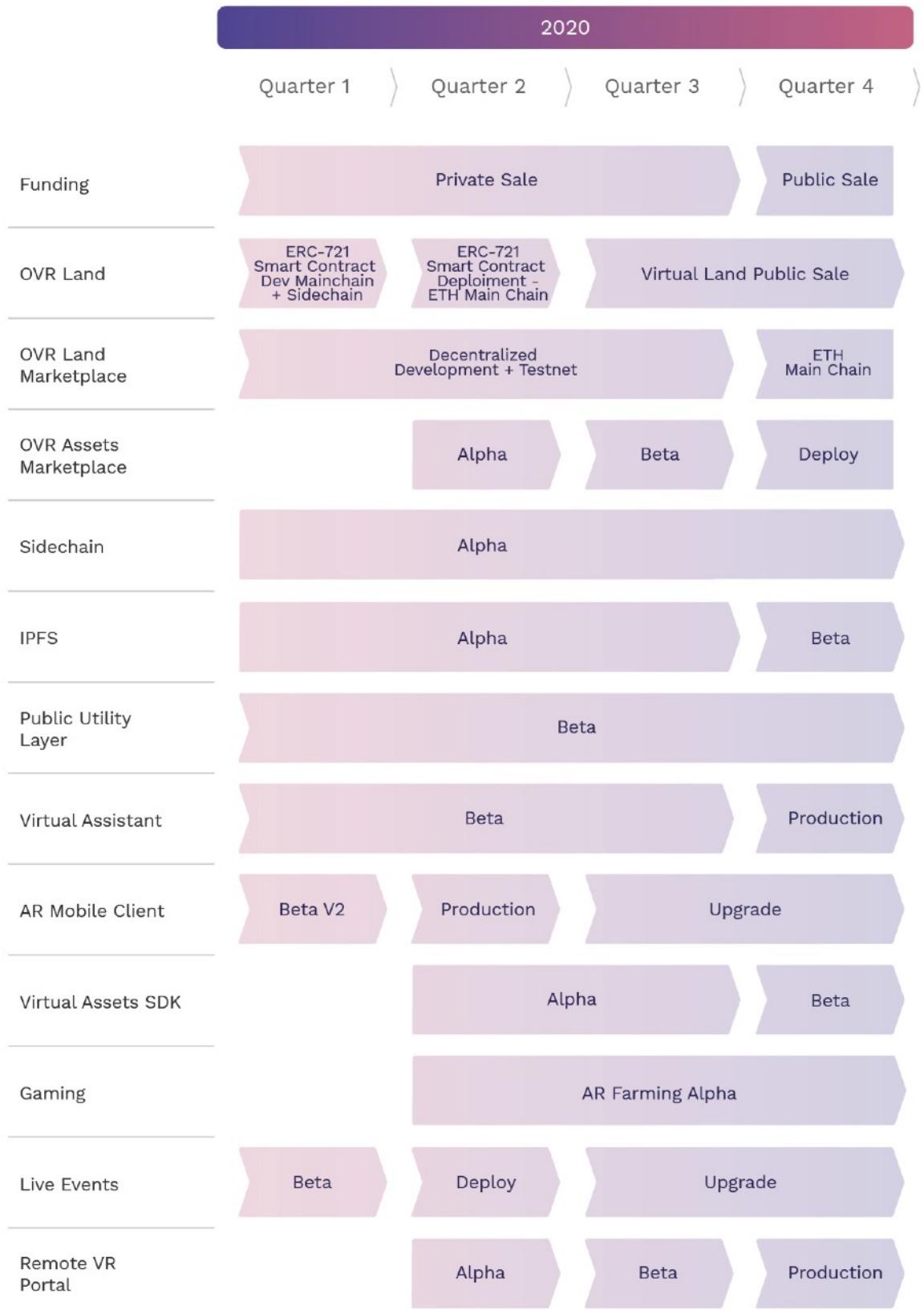
The OVR Token will also be used in bounty programs and campaigns aimed to acquire new users and stimulate their engagement with the platform:

- **Bounty (App download)**: OVR Token given as a reward to users for downloading the OVR app at launch;
- **Bounty (OVR engagement)**: OVR Token given as a reward to users who [create experiences] and [interact with experiences].

7 Platform Launch

7.1 Roadmap

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2019				
Funding			Private Sale	
OVR Land		ERC-721 Smart Contract Dev	ERC-721 Smart Contract Dev Rinkby testnet	
OVR Land Marketplace				Centralized development
OVR Assets Marketplace				
Sidechain				
IPFS				
Public Utility Layer			Alpha	
Virtual Assistant				Alpha
AR Mobile Client	Alpha		Beta	
Virtual Assets SDK				
Gaming			Treasure Hunt	
Live Events				Alpha
Remote VR Portal				

2020

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Funding	Private Sale	Private Sale	Private Sale	Public Sale
OVR Land	ERC-721 Smart Contract Dev Mainchain + Sidechain	ERC-721 Smart Contract Deploiment - ETH Main Chain	Virtual Land Public Sale	Virtual Land Public Sale
OVR Land Marketplace	Decentralized Development + Testnet	Decentralized Development + Testnet	Decentralized Development + Testnet	ETH Main Chain
OVR Assets Marketplace		Alpha	Beta	Deploy
Sidechain	Alpha	Alpha	Alpha	Alpha
IPFS	Alpha	Alpha	Alpha	Beta
Public Utility Layer	Beta	Beta	Beta	Beta
Virtual Assistant	Beta	Beta	Beta	Production
AR Mobile Client	Beta V2	Production	Upgrade	Upgrade
Virtual Assets SDK		Alpha	Alpha	Beta
Gaming		AR Farming Alpha	AR Farming Alpha	AR Farming Alpha
Live Events	Beta	Deploy	Upgrade	Upgrade
Remote VR Portal		Alpha	Beta	Production

2021

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Funding				
OVR Land	Virtual Land Public Sale			
OVR Land Marketplace				
OVR Assets Marketplace				
Sidechain	Beta	Deploy		
IPFS	Deploy			
Public Utility Layer	Deploy Wiki Knowledge		Upgrade	Upgrade
Virtual Assistant	Production	Version 2		
AR Mobile Client	Upgrade			
Virtual Assets SDK	Production GUI	Alpha Power User (PU)	Beta PU	Release PU
Gaming	Virtual farming Beta	2nd Production	New Game	
Live Events	Upgrade		Upgrade	
Remote VR Portal		Upgrade		Upgrade

7.2 Marketing plan

Goals:
- Position OVR website as industry leader for augmented reality platform aimed at highlighting opportunities related to at OVRToken.
- Favor a long-term conversion strategy linked to the use of the app and the time spent by the user on the same.

7.2.1 Definition of Target audience

The general target audience are adults of different age groups. They include:

Financial investor: a type of user who seizes investment opportunities in the purchase of OVRlands and identifies a financial return on them. Has a high educational qualification aged 25 and over and their interests are related to investments and the finance of digital markets.

End User: the most heterogeneous target including types of users of different age groups, educational qualifications, geographical origin and interests. The interests to be considered for segmentation are augmented reality and games via app. In this target you can find users interested in the purchasing of OVRlands.

Companies: a specific target with a good chance to buy OVRlands, specifically linked to their physical locations, and which see the app as one digital marketing possibility.

Digital Marketer: specific target with medium-high degree, mainly aged from 25 years over, with interests in the field of digital marketing and advertising. To be taken into consideration as he/she will be able to advise customers to invest in the target company.

Developers: a specific target that falls into categories with, probably, a medium-high level of education, with a high percentage from 25 years on, with interest in the field of apps, software, gaming and development. To be considered as a possible content provider for the app.

7.2.2 Digital Marketing Strategy Channels - (RACE -Reach, Act, Convert, Engage)

Use the following digital platforms to attain the reference targets previously mentioned.

PHASE 1 / REACH

Content Publication and promotion with the aim of attracting users to OVR. The communication means will be as follows:

Google ADS

1. Strategic analysis of the main search keywords related to apps and augmented reality world to assess CPC and setup multilingual ads (Initially English and Spanish);
2. Creation of campaigns on search network and display network aimed at the four target groups;
3. Create ads with A/B tests to evaluate performance.

Measurable value: Site visits.

Facebook & Instagram ADS

Setting up multilingual campaigns aimed at:
1. Traffic: bring people to the site or digital stores
2. Engagement: to entice users to interact with content
3. Brand positioning: to make the brand more and more recognisable.

Measurable values: Site visits, app downloads, user interactions with contents.

Listings on specific platforms for advertising on the app and possibility of monetisation such as:

A. AdMob: setting up promotional campaigns for the app using channels like Search for Google, Google Play, Youtube, Gmail and the Google Display Network complementary to Google ADS;
B. InMobi: campaigns focused on use habits of apps downloaded from users;
C. ChartBoost: campaigns focused on target players.

Measurable values: Download of the app.

PHASE 2 / ACT

Publication and promotion of content with the aim of informing users that have already shown interest in OVR.

Means used will be as follows:

Google ADS

1. Strategic analysis of collected data and navigation flows;

2. Creation of remarketing campaigns on search network and display network addressed to the four target groups;
3. Create ads with A/B tests to assess performance.

Measurable value: Visits to specific site sections, contact acquisition.

Facebook & Instagram ADS

Setting up multilingual campaigns aimed at:
1. Traffic: on digital stores;
2. Engagement: to entice users to interact with targeted content;
3. Lead: acquire data on users.

Measurable values: app download, user interactions with content; contact acquisition.

Advertisement on specific platforms for advertising on apps and possibility of monetisation as:
A. AdMob: arranging promotional app campaigns using channels like Google Search, Google Play, Youtube, Gmail and the Google Display Network complementary to Google ADS;
B. InMobi: campaigns focused on use habits of the apps downloaded by users;
C. ChartBoost: campaigns focused on the target players.

PHASE 3 / CONVERT

Publication and promotion of content with the aim of piloting the collected users from the ACT phase to a conversion.

The means used will be:
Facebook & Instagram ADS
Setting up multilingual campaigns aimed at:
1. Traffic: on digital stores;
2. Engagement: targeted content following the download of the app linked to marketplace;
3. Use of the App Events and specific campaigns based on the events completed by users.*
Measurable values: app download, interactions of users with the app.

A. AdMob: arranging promotional app campaigns using channels like
B. Search for Google, Google Play, Youtube, Gmail and the Google Display Network complementary to Google ADS;
C. InMobi: campaigns focused on the use habits of the apps downloaded from users;
D. ChartBoost: campaigns focused on target players.
E. Fyber: cost-by-engagement campaigns in order to reward users

F. Unity ADS: revenue campaigns through video insertion. This strategy can be connected to a "rewards" system related to the OVR world and therefore to encourage the user to view the advert.

*https://developers.facebook.com/docs/app-ads

PHASE 4 / ENGAGE

Publication and promotion of useful contents for people who are already app users such as:
- selfie related to the use of the app and sharing (eg PS Share of Playstation);
- recording of experience through screen recording and sharing (eg PS Share Playstation).

The means used will be:

Facebook

Setting up multilingual campaigns with the goal:

A. Engagement: targeted content following the download of the app linked to marketplace;
B. Use of the App Events and specific campaigns based on the events completed by users.*

Measurable values: user interactions with the app.

Advertisement on specific platforms for app advertising and possibility of monetisation as:

A. Fyber: cost-per-engagement campaigns in order to reward users;
B. Unity ADS: revenue campaigns through video insertion. This strategy can be connected to a "rewards" system linked to the OVR world and therefore stimulate the user to view the advertisement.

Direct Email Marketing Support

Sending users targeted emails with weekly promotions:

- land of the week;
- experience of the week;
- discounts coupons at some brands if the experience is lived.

*https://developers.facebook.com/docs/app-ads

7.2.3 Branding and offline marketing strategy

Local events
Organisation of local events targeted in major cities such as Milan, Tokyo, New York, Berlin, London, Sydney, Los Angeles and Paris aimed at specific segments of identified public. (Roadshow).

Exhibitions
Attendance at the most important technology-related conventions with public events speaking and demonstrations on the stand, setting up purchase and virtual simulations experience.

Media Offline
Press releases to traditional media related to brand and innovation technology. Ad-hoc press releases related to blockchain and ICO will be targeted at specific media.

Guerrilla Marketing
Creation of flash mobs in major cities such as Milan, Tokyo, New York, Berlin, London, Sydney, Los Angeles and Paris where they will live experiences by groups of users thus attracting the attention of passers-by who will use their Smartphones to share the event on their social profiles thus creating a viral response.
Organisation of thematic flash mobs within the brand franchises that have become early app adopters and advertisers (eg from Burger King, McDonald's, Apple Store etc) inviting people to download and use the app to live experiences related to the brand and that will give access to information, discounts or exclusive services.

Influencers
Involvement of youtubers from different countries belonging to the gaming world who will become app promoters and will highlight the possibilities of play and purchase in the marketplace.
Involvement of sports champions or high-level sports teams like testimonials that promote experiences and services related to the use of the app in sports facilities during events.

7.3 Competitor Analysis

	OVR	Arround	Arcona	Infiniverse
Fully decentralised	✓	✗	✗	✗
Blockchain Scalability	✓	✗	✗	✓
Sidechain integration with DPOS consensus	✓	✗	✗	✗
Full lands availability	✓	✓	✗	✓
Uniform lands management	✓	✗	✓	✗
Strategic partnerships	✓	✓	✗	✗
Avatar with artificial intelligence QA	✓	✗	✗	✗
Deep learning for tracking and scene understanding	✓	✗	?	✗
Circular economy with demand/offer tasks	✓	✗	✗	✗
Cashback system for land activity scaleup	✓	✗	✗	✗
Intelligent realtime marketing budget geo distribution	✓	✗	✗	✗
Business model with auto incremental user acquisition budget allocation	✓	✗	✗	✗
AR glasses client ready	✓	✗	✗	✗

8 Initial Bonding Curve Offer

8.1 Terms and Conditions

OVRGLOBAL OÜ is a company based in Tallinn managing the issuing of OVR utility token. The token will act as medium to interact with OVR, as well as to be used on services and products available on the OVR platform.

Token Emission

OVR Token is based on ERC-20 standard, the emission of tokens is governed by a DAO under Aragon framework. OVR token will be created in two main phases: the Initial Token Distribution event and Initial Bonding Curve Offering event.
During the initial token distribution event tokens will be created for the following categories: equity sale investors, private sale investors, team members, advisors, community rewards, bounty program. All the rest of the tokens will be created and distributed with an Initial Bonding Curve Offer (IBCO). 15 days after the launch of the IBCO an OVR/DAI market will be created also on Uniswap.
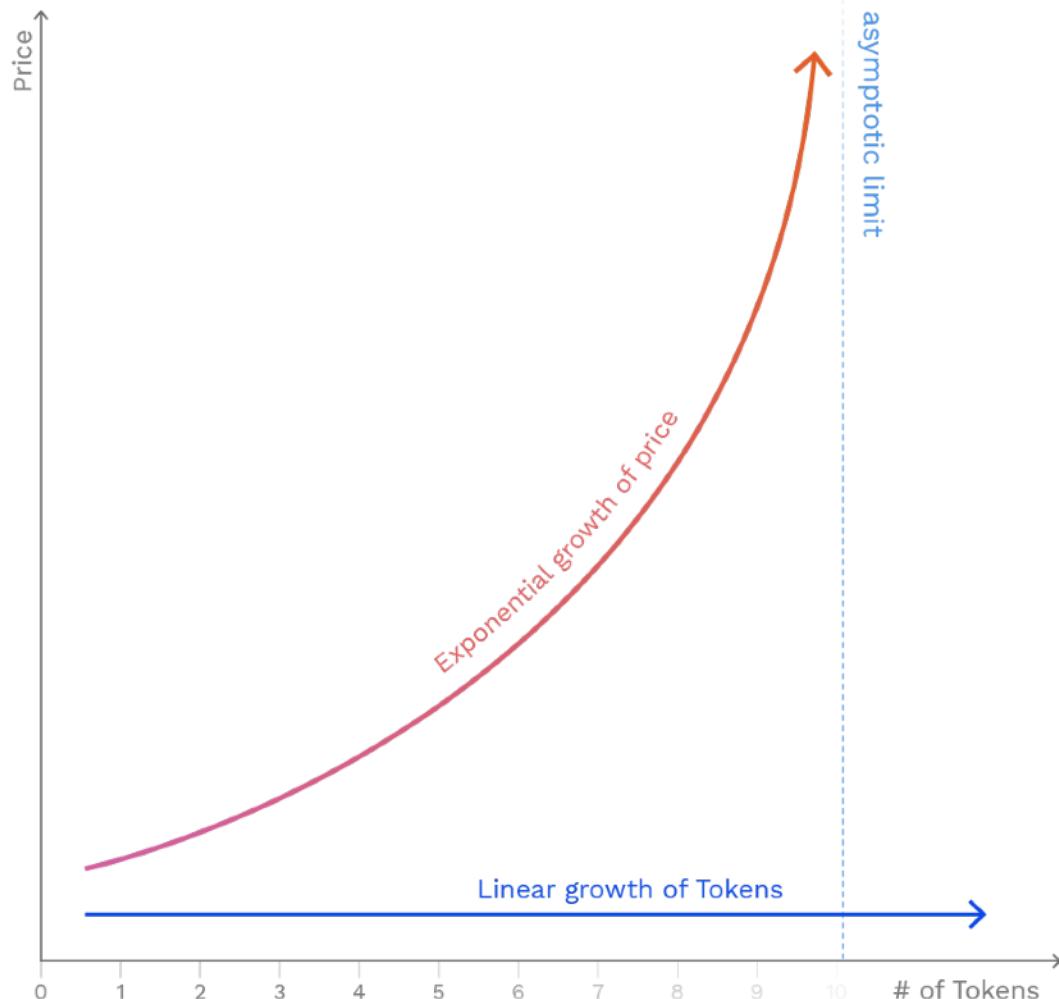
The IBCO is scheduled by November 2020 and has the following rules:

- Is open to participants from permitted jurisdictions who perform KYC.
- There is no minimum contribution to participate in the Initial Bonding Curve Offering.
- Tokens purchased from the IBCO have no cliff or vesting period, those can be immediately claimed, transferred or sold back to the Curve.
- When tokens are bought from the Curve new OVR tokens are created and price of the token increases, when tokens are sold back to the Curve OVR tokens are destroyed and price of the token decreases. Bonding curve is based on Bancor* continuous liquidity protocol.

*https://support.bancor.network/hc/en-us/sections/360002084771-Whitepaper-

- There is no theoretical hardcap for the number of tokens that can be minted by the Bonding Curve. Indeed there's a practical limit given by the market in fact a linear growth in token emission corresponds to an exponential growth in token cost.

- Liquidity for sellers on the Bonding Curve is granted by the DAO smart contracts that limits the ability of OVR Holding to withdraw the DAI collateral. Maximum DAI collateral withdraw per month is set to 50k DAI with a floor liquidity of 250k. Changes to such a policy can only by applied by token holders vote.*

*More on this mechanics on https://fundraising.aragon.black/.
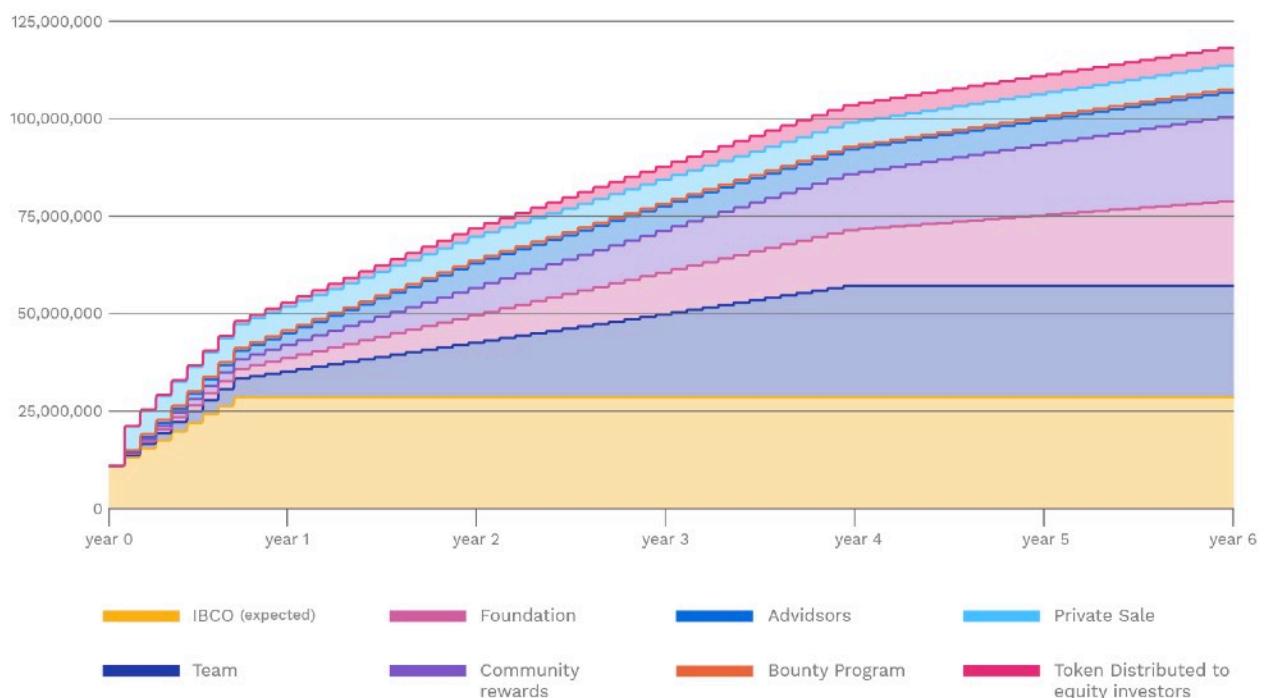
The initial token distribution will have the following structure and smart contract enforced vesting:

- **Tokens reserved to equity subscribers:** 4.250.000 OVR reserved to equity investors cliff period IBCO launch + 15 days; vesting period linear release of 72 months.
  Vesting Smart Contract: 0xE07f85362fe0d14d4F2b272b98d67B50A3148072
- **Private Sale subscribers:** 3.168.000 OVR Tokens to early contributors of permitted jurisdictions who performed KYC. Cliff period IBCO launch + 15 days; with variable vesting period from no lock-up to 12 months. Before the Cliff date, OVR will release the smart contract for the private sale contributors to convert the genesis token to OVR token.
- **Team Fund:** 26.500.000 OVR tokens reserved to incentivise the OVR team members and contribute full time to the project with a long term mindset. Cliff period IBCO + 15 days; vesting period linear release of 48 months.
  Vesting Smart Contract: 0xCEE8fcBC9676A08B0a048180d99b41a7F080bB78
- **Advisors:** 5.950.000 OVR tokens reserved to Advisors to support the project. Cliff period IBCO + 15 days; vesting period linear release of 24 months. Vesting Smart Contract: 0xC1D9261cBc6DeD410dC81929EBB0871471E7e9D3
- **Bounty program:** 1.500.000 OVR tokens reserved to the community members who participated to the treasure hunt and other token incentivised campaigns. Cliff period IBCO + 15 days; vesting period linear release of 3 months.
- **Community rewards:** 20.000.000 OVR Tokens reserved for rewards to community members participating to the ecosystem, such activities include IPFS nodes operating and staking, liquidity mining, voting. Cliff period IBCO + 15 days; vesting period linear release of 72 months.
  Vesting Smart Contract: 0x0965cBf02906b8c854037A16D4f39456444cE600
- **Foundation:** 20.000.000 OVR Tokens reserved for supporting the ecosystem, the release of those tokens will be controlled by token holder voting, yet whatever the community voting result, funds will not be available faster than the following hardcoded release schedule: Cliff period IBCO + 15 days; vesting period linear release of 72 months. Also the mentioned fund may be burned if the token holder community decides to do so.
  Vesting Smart Contract: 0xe3729fA98e1bC66750F986E95b37044B06D26D73
- **Contingency liquidity bootstrapping**: 320.000 OVR funds are reserved for liquidity bootstrapping with partner exchanges. The reserve will be used only in case of network congestion or excessive price volatility on the initial moments of the IBCO launch will not allow for liquidity supplying. Unused tokens will be burned.

Why so many pre-minted tokens? Why not just go out with a minimum amount of tokens and then mint those later with the consent of the token holders?

For the following reasons:

A. We believe that declaring a total amount of circulating tokens in advance is much more fair than minting those later on. This first solution allows for fully informed price discovery since contributors and subscribers have a clear idea of both circulating market cap and maximum* fully diluted market cap.

B. There can be coordination problems in proposing to token holders to allow for minting new tokens since while those can be used with a positive impact for the project, dilution fear can prevail. Better have a reserve than later on can be burned, the coordination problem is minimal in such a scenario, in-fact reserve token burn has strait-forward benefits for token holders

C. In a crypto project governed by DAO pre-minting and assigning tokens to specific tasks equals to algorithmically committing to a business plan.

*tokens sold to the bonding curve get destroyed diminishing supply.

Token Release schedule

8.2 Uses of Funds

Funds will be used to ensure the development and launch of the platform, as well as to maximise its success and growth chances.

Development: Dedicated Dev team focused on managing the launch of OVR most amazing features. They include all expenses related to product development.

Marketing: Marketing activities to guarantee a worldwide diffusion and success.

> **3-Year Budget allocation:**
> Year 1 - 40% Initial boost to create a mass critic user base (early stage)
> Year 2 - 30% Guarantee budget for user acquisition integrated with the OVR platform marketing reinvestments: (expansion stage) Year 3 - 30% Guarantee budget for user acquisition integrated with the OVR platform marketing reinvestments (maturity stage)
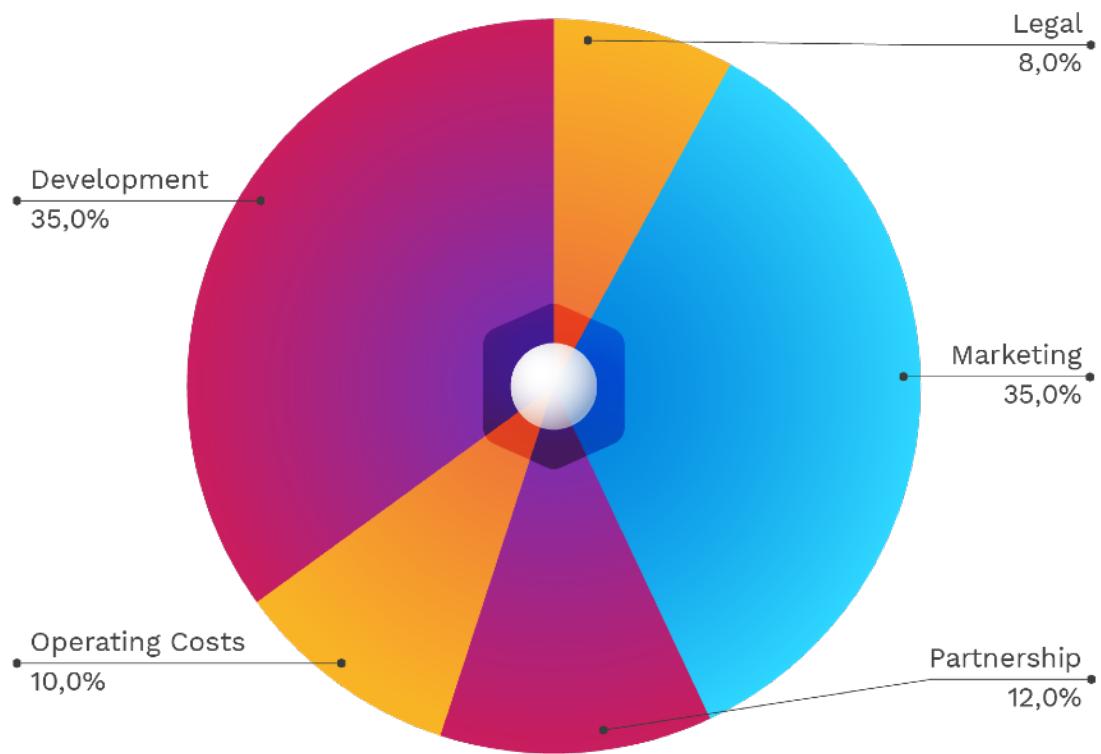
Operating costs: General operating costs.

Partnerships: Investments finalised in creating partnerships and initiatives.

Legal costs: IBCO-related legal costs, ensuring continuous legal compliance over the growth of the platform.

8.2.1 Budget allocation

Legal	8,0%
Marketing	35,0%
Partnership	12,0%
Operating Costs	10,0%
Development	35,0%

9.0 Team

Davide Cuttini
CEO

Davide is a Software Engineer with expertise in augmented reality, deep learning and blockchain smart contracts. Davide has a wide experience in the development of engine for augmented reality; engine development within computer vision on mobile and embedded systems; machine learning models for videos, audio and text use. He also has interests in System Integration, and Robotics with specific application in the industrial field. He works out solutions in the industrial field for companies like Bosch and Danieli Automation and he collaborates with IBM to scale up industrial AI solutions.

Linkedin

Diego Di Tommaso
COO

Graduate in Theoretical Philosophy and MBA in SDA Bocconi with specialisation in Finance at UCLA. Diego has an extensive expertise in innovation management. He has been working in the fashion industry for over 10 years with positions of growing responsibility up to the CEO. Lately collaborating with PwC as Senior Advisor working on strategy, open innovation, operation excellence and internationalisation. Diego is also a startup advisor and one of the founders of Unicorn Trainers, a club focused on new technologies and startup support. Since 2014 Diego developed a specific interest in blockchain and decentralised consensus mechanics, he has been Keynote Speaker and organiser of several Blockchain events.

Linkedin

Mattia Crespi
CSO

Futurist, technology evangelist, entrepreneur. Mattia interacts with innovators and innovation centres globally, to bridge research on new technologies, future ecosystems and the business environment. Technology strategist and innovation expert, Mattia is a Research Affiliate of the Institute For The Future, and a Member of the NATO ACT Innovation Hub. In 2012 Mattia founded Qbit Technologies, an award- winning Start-up, developing Virtual and Augmented Reality solutions for enterprises, after over 15 years of experience working on virtual reality and virtual worlds projects such as Second Life and High Fidelity and many virtual reality implementation projects, for both research and industrial purposes

Linkedin

Alessio Antoniacomi

Dev Ops

Over 15 years of experience in the IT industry as web developer, UI/UX designer, network manager and server manager. Team leader, strong communication, organised, flexible, goal-oriented, adaptable.
Linkedin

Carlo Davide

AR Architect & Developer

Senior Developer specialising in the development of experiences in Augmented Reality and Virtual Reality. Expert of Unity platform. Constantly researching about potential developments of new technologies for Mixed Reality experiences.
Linkedin

Federico Palla

Unity Developer

Federico has a Master's degree in Computer Science, He is a Junior Software Engineer competent in Game Design and Programming in Unity 3D, Web Technologies as well as Machine Learning solution for Natural Language Processing, experienced as University student and developer in OVR.
Linkedin

Abhishek Verma

Unity3d Developer

UNITY3D developer having more than 7 years of experience with creating appealing unity-based game concepts and logics by coordinating with teammates to boost creativity. Accomplished in envisioning and delivering prototypes and completed game content according to specifications. Strongly experienced in game design, logic and idea generation.
Expert in 2D & 3D Gaming, AR, VR, Photon based Multiplayer projects.
Linkedin

Matteo Vittori

Unity developer

Game Developer specialised in Unity with 8 years of experience and over 10+ years in C# programming with a background of 1k hours of specialised courses. Strong passion for video game development since his very young age, open-minded to learn as much as he can, and Unity engine fanatic.
Linkedin

Pawam Agnihotri

2D/3D Game Developer

Almost 6+ years experience in Game Development in Unity using C# as programming language. Experience in developing games for the both mobile platform, iOS and Android as well.
Sound knowledge of making game for Google Cardboard,Oculus Rift, Samsung Gear VR,AR, Z-Space and all in one device as well.
Linkedin

Matteo Gardin
3D Production

Creative and great lover of 3D graphics and animation. Specialised in Digital Character Animation at the Vancouver Film School in Canada, with the creation of a short film in 3D. He believes in teamwork, he deals with projects ranging from architecture to Virtual Reality and Character Animation.

Linkedin

Giacomo Angelozzi
3D Production

Passionate gamer and pathological creative, in 2009 he enrolled in Architecture at the University of Udine and came into contact with the first 3D modelling software. It doesn't take him long to discover Blender, a program that will become his main tool in every possible field of application, from architecture to design, from animation to video production.

Linkedin

Mattia Di Nunzio
3D Designer

3D artist expert in creating assets for Real-time render engines. Master degree in Computer Graphics, Autodesk Certificated and full knowledge of the main 3d modelling softwares. Constantly researching for new technology to enhance his creativity.

Linkedin

Antonio Dal Cin
Full Stack Developer

Full Stack Developer and Web Designer with expertise in analysis, design, development, management and maintenance of web based systems. Autonomous freelancer on many custom CMRs, company portfolio websites and e-commerces, part of the developing team in an ambitious art investments platform and a national career management system. Constantly developing skills acquired through University and work experiences, looking to gain further progression within AI and BlockChain.

Linkedin

Marco Gianni
Frontend Developer & UX Designer

Graduated on Web and Multimedia Technologies from the University of Udine. Stimulated to solve UI and UX design problems, I especially love to take care of the visual aspects of websites, using good graphics standards related to CSS animations. React.js expert, passionate about Crypto World.

Linkedin

Angelica Bordon
Head of Communication

Graduated from the Academy of Fine Arts in Venice, she specialised in the application of new technologies in the field of visual communication. Expert in UI / UX design and concept design.

Linkedin

Lydia Wang
Marketing Director

Graduated from London School of Economic and Political Science, Master degree in media and communication. Worked as consultant in FMCG market research area with Coca Cola and J&J China, focus on quantitative analysis of consumer behaviours.

Linkedin

Alex Faraone
Community Manager

Community and Client management, revenue generation, sales, relationship building, networking, communication, engagement strategies. Expert and Specialist for more than 10 years Alex has collaborated with several Italian and Worldwide startups. Serious, honest, accurate, respectful and punctual he is passionate about blockchain and Crypto World.

Linkedin

Victor Amaechi
Social Media Manager

Digital marketer and content creator with over 4 years of experience in the blockchain industry. He has worked with more than 10 reputable projects in the past and has once co-founded a startup in the industry.

Linkedin

Giorgio Oliva
Social Media Content Manager

Content creator specialised in graphic design and multimedia production. Over 3 years of experience working on independent projects and non-profitable organisations both as content creator and social media manager being in charge of the visual material production and the social media channels engagement.

Linkedin

Stefano Chiarandini

Administrative Officer

With an economic background with over 10 years of experience in corporate administrative management, responsible for personnel management, accounting and payments.

Linkedin

Advisors

John Henry Clippinger
Advisor

Throughout his career John has always been interested in complex self organising systems and new approaches to organisational and institutional design to address fundamental civic, economic and ecological issues. He has held senior positions in government, large enterprises and founded 4 software companies. He has been engaged with non-profit organisations and institutes – Santa Fe Institute, Aspen Institute, World Economic Forum, Kauffman Foundation – and has started new programs at Harvard and Harvard Law School, Brandeis Florence Heller School, MIT Media Lab, and co-founded ID3 with Sandy Pentland of MIT Media Lab.
Linkedin

Sean Ness
Advisor

Sean Ness is a Director of Business Development at The Institute for the Future, an independent, nonprofit research group with almost 50 years of forecasting experience. Sean oversees business development at The Institute for the Future. After earning a BS in polymer science with a minor in chemistry from Pennsylvania State University, Sean ping-ponged between research organisations including Forrester Research and scrappy software start-ups like ComputerWire before joining IFTF in 2004. In 2006, Sean co-founded the STIRR Network, a group that helped catalyse early-stage entrepreneurial activity in Silicon Valley and beyond, through 2009.
Linkedin

Felix Mago
Advisor

Felix is Co-Founder of Dash NEXT & Dash Thailand. Dash is the leading cryptocurrency for real-life payments. Dash Next is focused on biz-dev and partnerships. He published the "Bitcoin Handbook" and is Co-Founder of FUTERIO and the Blocktech Institute. Felix focus is on mass adoption of cryptocurrencies and decentralised businesses.
Linkedin

Gianmarco Boggio
Advisor

Gianmarco has worked in the commercial sector with telecommunications companies, including IBM and Set Telecomunicazioni. Since 2006, he has been the director of the Italian branch of Allot Communications, an Israeli manufacturer of control, management and security systems. Since 2008 has also been Vodafone customer manager in the European, African, Asian and Australian territories. Since 2019 he has been involved in the expansion in Europe of an Israeli company active in government supplies. He has been registered as an executive at Manageritalia since January 2011.
Linkedin

Amelia Tomasicchio

Advisor

As expert in digital marketing, Amelia began working in the fintech sector in 2014 after writing her thesis on Bitcoin technology. Previously author for Cointelegraph and CMO at Eidoo. She is now the co-founder and editor-in-chief of The Cryptonomist. Amelia is also among the 30 under 30 according to Forbes Italia and she is about to publish a book about blockchain marketing, with an important section related to NFTs.

Linkedin

10 Legal Disclaimer

The delivery of this White-paper and the offer, sale of Coins, do not constitute a representation that the information contained herein is correct after the date of this White-paper. The directors of the Company have taken all reasonable care to ensure that the facts stated here in are true and correct in all material respects and that there are no other material facts, the omission of which would make misleading any statement herein whether of fact or opinion.

The contents of this White-paper should not be construed as investment, legal or tax advice. Each prospective coin buyer is urged to seek independent investment, legal and tax advice concerning the consequences of purchasing the Coins.