Fundamental Report - Metaverse

Prime Rating Report V1.2

Protocol: Decentraland
Category: Virtual World
Version: V1
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Previous Report: No previous report

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Season/competition: Metaverse Rate-athon

Scorecard

1. Value Proposition	Points
a) Novelty of the solution	15 / 15
b) Target market size	12 / 15
c) Product-market fit	10 / 15
Total Points - Value Proposition	**37 / 45**

2. Competitive moat	Points
a) Integrations & partnerships	7 / 10
b) Intellectual property	7 / 10
c) Infrastructure - security	9 / 10
d) Infrastructure - fees and ancillary infrastructure	9 / 10
e) Treasury management	3 / 10
Total Points - Value Proposition	**35 / 50**

3. Tokeneconomics	Points
a) Genesis token distribution	11 / 15
b) Purpose of the token	7 / 10
c) Ongoing token issuance / inflation	9 / 10

d) Value capture	**7 / 10**
e) Token liquidity	**4 / 5**
f) Extrinsic productivity	**4 / 5**
Total Points - Tokenomics	**42 / 55**
4. Team	**Points**
a) Credibility and reputation	**6 / 10**
b) Relevant experience	**9 / 15**
c) Thought leadership and public presence	**5 / 10**
d) Ability to foster a community and coordinate resources	**15 / 15**
Total Points - Team	**35 / 50**
5. Governance	**Points**
a) Extent of governance capabilities	**9 / 10**
b) Active governance contributors	**5 / 5**
c) Governance infrastructure robustness	**9 / 10**
d) Process and ease of use	**5 / 5**
Total Points - Governance	**28 / 30**
Total	**177 / 230**

1. Value Proposition

The "Value Proposition" section assesses the value a protocol delivers to its users. The rating is based on the size of the problem a protocol addresses and the product/market fit of the protocol's solution

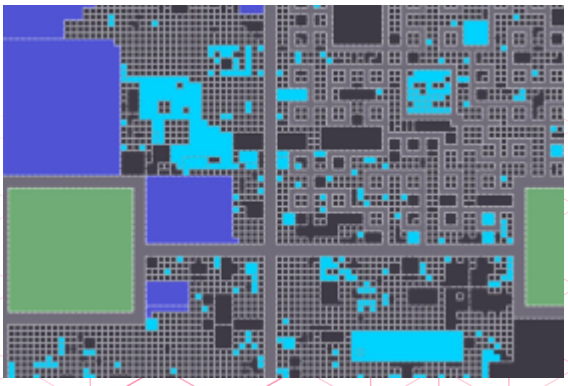
a) Novelty of the solution (15 points)

This score evaluates the novelty (uniqueness) of the protocol. Has the protocol introduced any innovations that help solve users' problems, either technical or organisational? Or has it just forked someone else's code?

Answer:

Decentraland began as a proof of concept for allocating ownership of digital real estate to users on a blockchain [1]. This digital real estate was initially implemented as a pixel on an infinite 2D grid, where each pixel contained metadata identifying the owner and describing the pixel's colour. The experiment was entitled Decentraland's Stone Age.

In late 2016, the concept evolved to a 3D virtual world divided into parcels, each one associated with a hash reference to a file stored in a modified Bitcoin blockchain. Thanks to this, using BitTorrent and a Distributed Hash Table, users could download the parcel's content so their computer could emulate the content the parcel is supposed to display.



The next version of Decentraland, the Iron Age, will create a social experience with an economy driven by the existing layers of land ownership and content distribution. In the Iron Age, developers will be able to create applications on top of Decentraland, distribute them to other users, and monetize them. During this epoch, a peer to peer communication system was implemented allowing voice chat, positioning, postures, etc.

To allow economic transactions, 3 types of goods can be traded in the platform: currency, goods and services.

This is Decentraland's player point of view:

According to the whitepaper, Decentraland's use cases are:

Applications: decentraland's scripting language can be used to develop from games or gambling to 3d scenes. Being able to handle physics, textures, sounds, payments.

Content Curation: as neighbourhoods will have shared interests due to the adjacency of the parcels, being located near high-traffic hubs will drive users to the landowners' content.

Advertising: thanks to what's explained in the curation use case, advertisers can look for their target audience in order to promote services, products and events. Some neighbourhoods can become virtual versions of places like Time Square

Digital Collectibles: thanks to the blockchain integration, digital assets like NFT's can be integrated in the world, opening this world to art galleries or character customization backed by unique assets.

Social: many online communities such as chat rooms, multiplayer games or forums could port their communities into Decentraland.

Decentraland protocol is compromised in 3 layers:

1) Consensus: Track land ownership and its content.

2) Land content layer: Download assets using a decentralised distribution system.

3) Real-time layer: Enable users' world viewers to connect to each other.

Decentraland is not only a pioneer in all of these systems and infrastructure explained earlier, they are also the 2nd biggest metaverse project by market cap, just behind ApeCoin.

Many innovations were included by the protocol, from the first version (stone Age) until what this metaverse has become today. These innovations such as using blockchain for the storage of a metaverse, implementing decentralised servers, using NFTs in the world or implementing a voice chat in a decentralised metaverse have made this protocol a 'path-opener' for many other projects to implement these technologies. We can say Decentraland is the biggest pioneer in the Decentralised metaverse field.

Score: 15

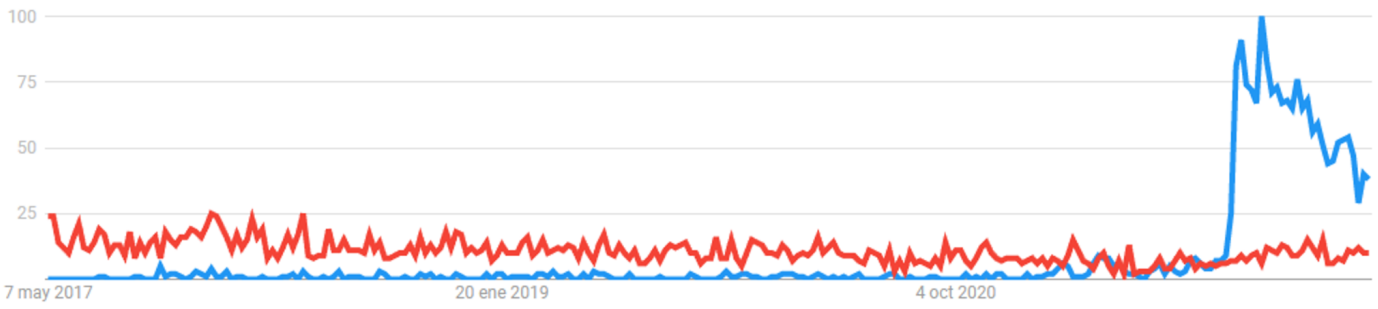
b) Target market size (15 points)

The target market size evaluates the current and future size of the problem a protocol aims to solve. While the term Metaverse is all-encompassing, what is the target market size for the relevant sector? For example, NFT games are trying to disrupt the traditional gaming industry, which is reported to be worth roughly $175 billion.

Answer:

Decentraland is not only aiming for the games industry. If someone wants to live the experience of having an online life where they can even be financially sustainable, this game allows it. Advertisers, developers, landlords… everyone can have their place in a metaverse like Decentraland. News like Facebook's name change to Meta [2] or events like the fashion week ran in Decentraland where brands like From Dolce & Gabbana or Giuseppe Zanotti were taking part in it [3] [4].

This is pretty relevant since we see an increasing interest from brands to sell their products in the metaverse. As long as the offer keeps increasing and people start seeing the potential of these platforms, the market size will keep growing, in this sense, the future seems to be promising.
Metaverse has been a trend since Facebook rebranded to Meta although interest has been decaying since its peak while virtual reality interest keeps all the time in the same levels. Nowadays the combined market cap of the metaverse projects is sitting around 24 billion USD according to CoinMarketCap [5]. This means the market is still small compared to others like the DeFi, which is supposed to be around 126 billion dollars, which means there is still a lot of room left for market growth. In the next graph from google trends the red line is the relative interest in VR while the blue one represents the relative interest in metaverse projects [6].



Score: 12

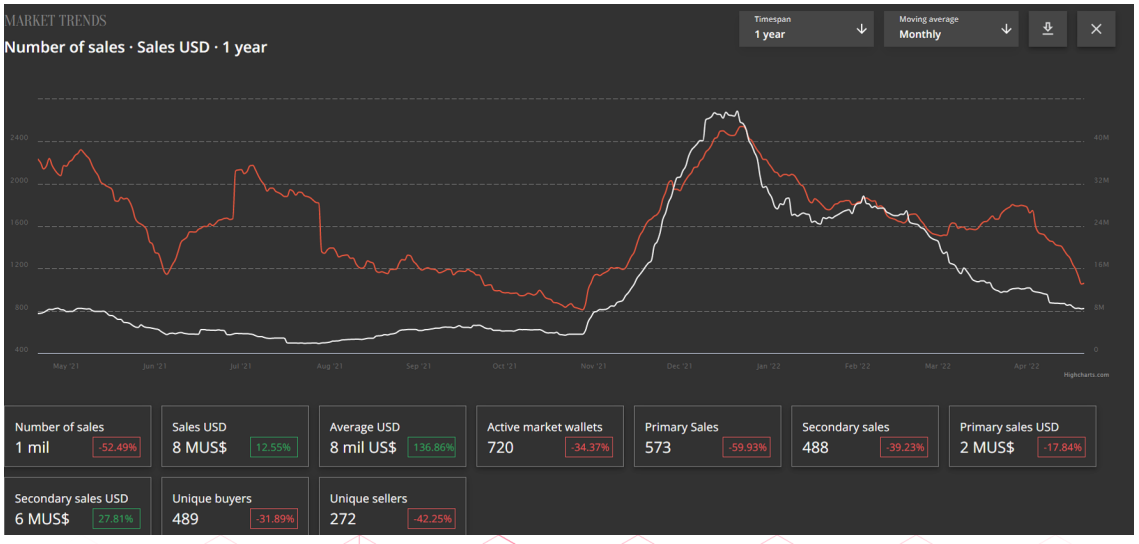
c) Product-market fit (15 points)

Product-market fit evaluates the degree to which a protocol satisfies market demand in their specific sector. How many users does a protocol have? What is the trading or transaction volume on a platform? Is there growth on both the buy and sell side of the market? Is the protocol targeting the right product segment at all?

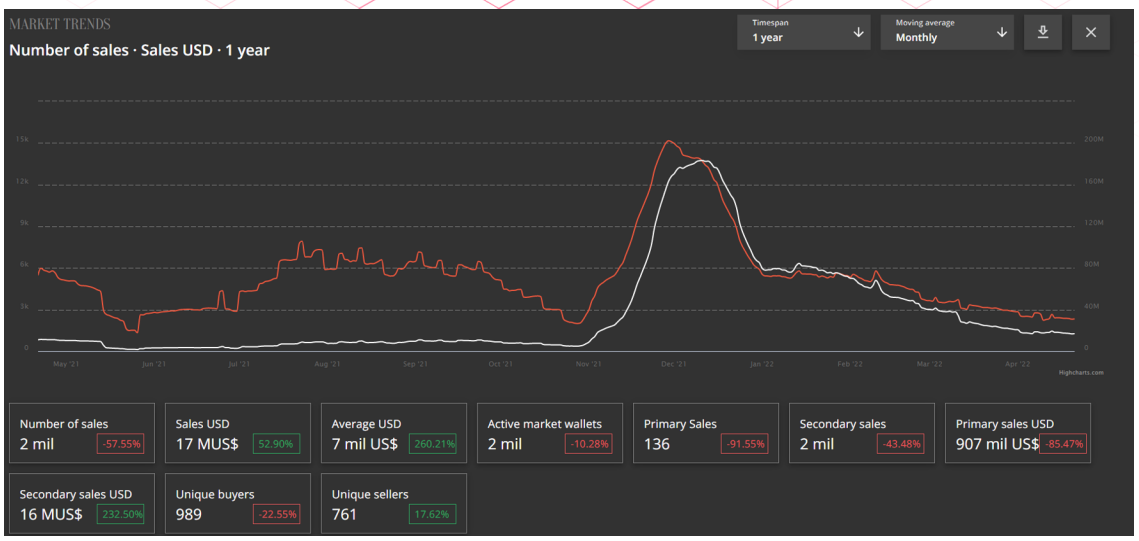
Answer:

At the moment of writing this report, the LANDs number is 97,465 with 7011 owners and a trading volume of 1.6 million $ in the last 7 days [7].

According to the data of nonfungible.com [8], in the following graph we can see the volume ranging between a max of 45 million USD monthly average and 8 million USD monthly average.



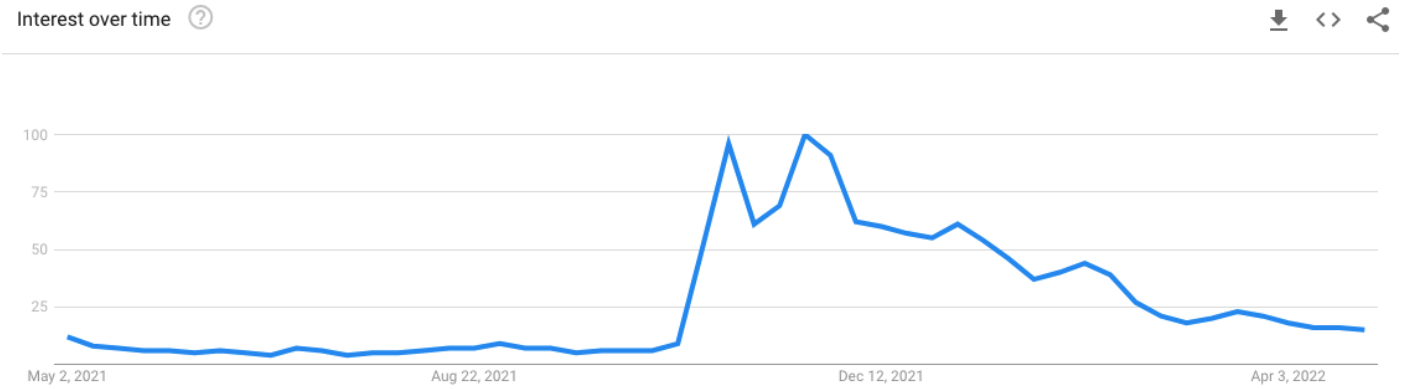
In comparison, the main competition Decentraland has is The Sandbox. Which is smaller by market cap but the volume is way higher, peaking 183 million $ monthly average on December 11th and an actual volume of 16 Million USD on monthly average.



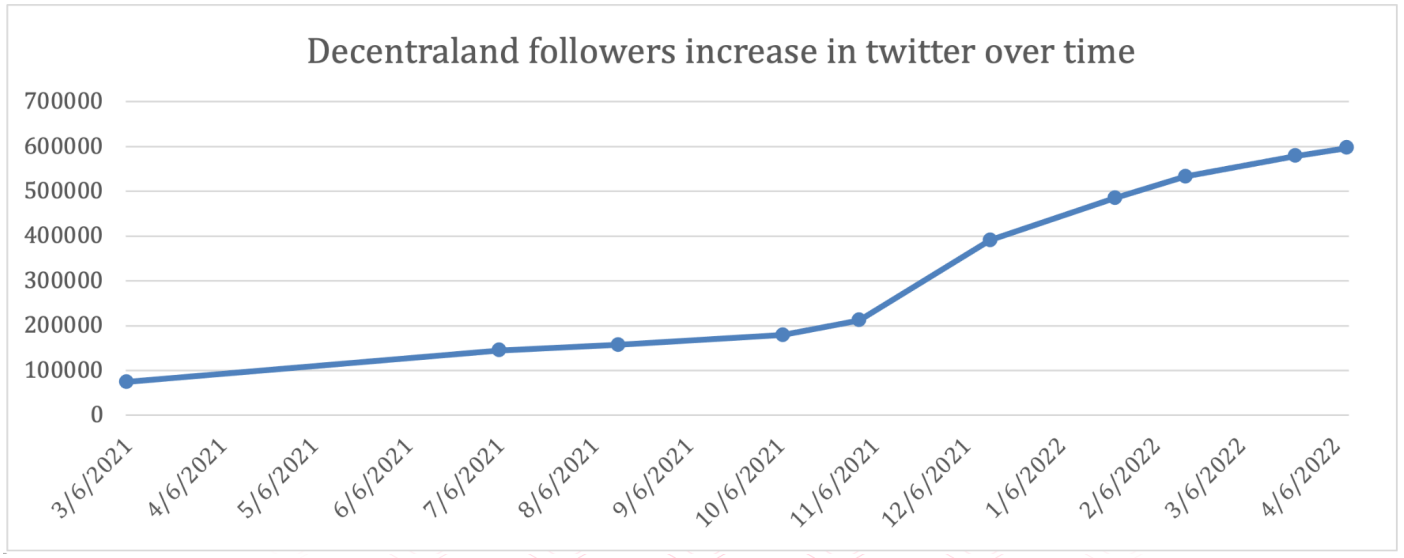
We can see its main competitor is drawing more attention than Decentraland right now despite Decentraland having a 13% bigger market cap.

As of January 3rd 2022, Decentraland has a monthly active user base of about 300,000 people and 18,000 daily users, representing an increase of 3,300% between December 2020 and December 2021[9] [10]. We can expect the players to have decreased since then since the interest in the protocol has decreased according to the information provided by

google trends as we can see in the following graph but there is no clear information about the daily and monthly users at today's date [11].



We can also see how the followers in twitter have risen over time; thanks to web pages like web.archive.org:



Date	Followers
06/03/2021	74k
06/07/2021	145k
14/08/2021	157k
07/10/2021	179k

01/11/2021	212k
14/12/2021	391k
24/01/2022	485k
16/02/2022	533k
24/03/2022	579k
10/04/2022	597k

We can see the explosion of interest that was driven by Facebook changing the company name to Meta that led to an explosion of the followers in the main metaverse projects [12].

The main difference here is that Decentraland development is being done by a DAO while Sandbox development is being done by a centralised team. In this case, Sandbox development could be faster than Decentraland and their roadmap seems clearer. What could make it more difficult for Decentraland to keep its place as the 1st metaverse project in the long term.

Score: 10

2. Competitive Moat

The "Competitiveness" section looks at a protocol's competitive moat in the space and its unforkable assets. This includes integrations and partnerships, intellectual property, the underlying infrastructure being used, and treasury management.

a) Integrations & partnerships (10 points)

Due to crypto's open-source nature, the code of most protocols can easily be forked. This score represents one piece of unforkable value. Some indicators are the number of applications built on top of the protocol (vertical integration) and other entities integrating the protocol's services (horizontal integration).

Answer:

As the development is being made by a DAO, everything is transparent to the user and it could be easy to copy and fork.

However, the forks could tend to not work for the following reasons.
1 - Antiquity of the protocol: Many people have been playing Decentraland doing many changes in the plots hence these users won't want to lose all the progress made in such a long time.

2 - Infrastructure built: As stated before, many users have built a lot of infrastructure people can use and enjoy, making all of this difficult to replicate if a fork started the world from 0.
3 – MANA token: The token associated with the project is one of the biggest in the crypto space if it's compared by market capitalization, right now the 37th. As it has been already distributed and thanks to the burnt is deflationary it draws the interest of many investors and incentives the long-term holding. This can also attract new users.

However, Decentraland itself doesn't have many partners. It has partnered with CoinGecko [13] or Binance [14], despite this, these agreements were no more than a land auction done in Binance or Mana being listed on CoinGecko, what surely is positive but not too relevant, considering Binance has directly invested in Lands in The Sandbox metaverse, creating their own 'state' [15] and its interoperability is thanks to the Mana token being issued in the Ethereum network, despite the problems it has it makes it easy to be swapped by other tokens and easily bought.

To conclude, the protocol is open and interoperable and despite the lack of integration in other protocols, is very difficult to fork.

Score: 7

b) Intellectual property (10 points)

Intellectual property is and will continue to be a crucial part of the metaverse. This score considers if a project, for example, developed a unique IP that creates a sustainable competitive moat around it or, as an alternative, secured IP through agreements with outside parties.

Answer:

[16] Decentraland is well known in the crypto space. Although the project doesn't have many agreements with other external companies, its trajectory, development in a DAO and token make this project unique in the crypto space. With time they have been able to create a strong community and network effects as a consequence.

According to the Content Policy, this is the info provided from the Decentraland DAO:

"*Copyrights, mask work rights, and other rights in published and unpublished works of authorship, including without limitation computer programs, databases, graphics, user interfaces, and similar works.*

Patents, design rights, and other rights in inventions and discoveries, including without limitation articles of manufacture, business methods, compositions of matter, improvements, machines, methods, and processes

Trademarks, service marks, trade dress and other logos and similar indications of origin of, or association with, a group, business, good, product, or service.

Trade secrets and other information that is not generally known or readily ascertainable by third parties through proper means, whether tangible or intangible, including without limitation algorithms, customer lists, ideas, designs, formulas, know-how, source code, methods, processes, programs, prototypes, systems, and techniques a person's name, voice,

signature, photograph, or likeness, including without limitation rights of personality, privacy, and publicity attribution and integrity and other so-called moral rights of an author internet domain names data and databases and similar proprietary rights arising under the laws of any jurisdiction."

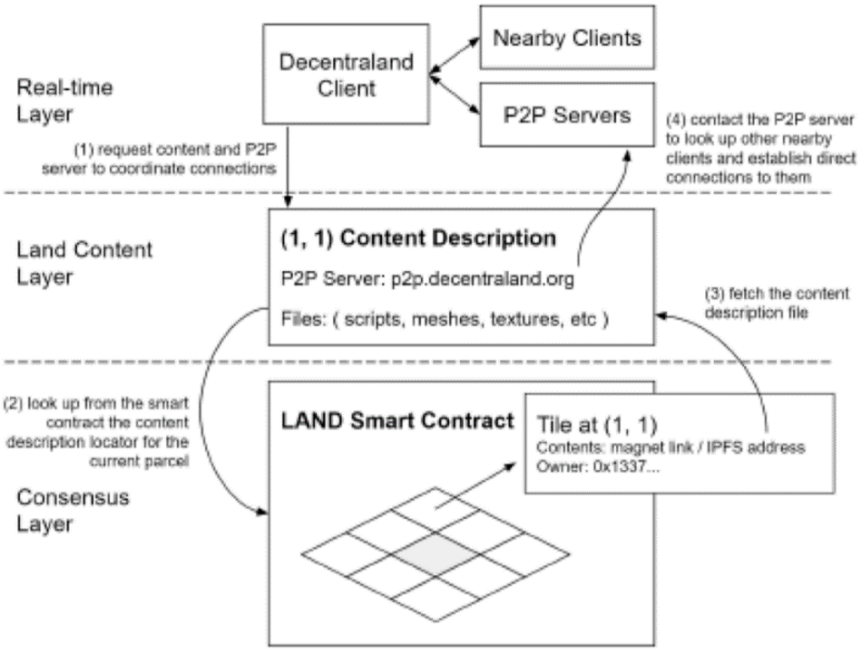
What this means is that any fork of the project that is clearly copying them might have to face legal sanctions, making this protocol even more difficult to replicate.

Score: 7

c) Infrastructure - security (10 points)

Metaverse projects make all kinds of choices when it comes to infrastructure. Some build their own solutions, whether Ethereum side-chains or a new blockchain entirely, and some deploy to an existing sidechain or a level 1 blockchain. These decisions have significant trade-offs across security, maintenance, ease of use, costs and scalability, etc. This score assesses specifically the security of the chosen infrastructure solution.

Answer:



Decentraland protocol is compromised in 3 layers [17]:

1) Consensus:

Decentraland will use an Ethereum smart contract to maintain a ledger of ownership for land parcels in the virtual world. We call these non-fungible digital assets LAND: each LAND has unique (x, y) coordinates, an owner, and a reference to the content description file, which encodes what the landowner wants to serve

there. Decentraland clients will connect to the Ethereum network to fetch updates to the state of the LAND smart contract. LAND is bought by burning MANA, a fungible ERC20 token of fixed supply. This token serves as a proxy for the cost of claiming a new parcel. The LAND contract uses a burn function to destroy MANA and create a new entry in the LAND registry. New parcels need to be adjacent to a non-empty parcel.

2) Land content layer:

Download assets using a decentralised distribution system.

Decentraland uses a decentralised storage system to distribute the content needed to render the world. For each parcel that needs to be rendered, a reference to a file with the description of the parcel's content is retrieved from the smart contract. The current solution uses the battle-tested BitTorrent and Kademlia DHT networks by storing a magnet link for each parcel. However, the Inter-Planetary File System (IPFS) provides a compelling alternative as its technology matures.

This decentralised distribution system allows Decentraland to work without the need of any centralised server infrastructure. This allows the world to exist as long as it has users distributing content, shifting the cost of running the system to the same actors that benefit from it. It also provides Decentraland with strong censorship-resistance, eliminating the power of a central authority to change the rules or prevent users from participating. However, hosting these files and the bandwidth required to serve this content has significant costs. Currently, users of the Decentraland P2P network are seeding the content without compensation and out of goodwill. However, in the future, this infrastructure cost can be covered by the use of protocols like Filecoin12. Until this technology becomes available, automated micropayments can be used to pay for quality of service. The proceeds of Decentraland's continuous sale of MANA can cover these costs over the long run.

The description of a parcel will contain a list of different files required to render it, a list of services hosted by the landowner, and an entry point to orchestrate the placement of objects and their behaviour. This document must declare:

Content files:

References to, or blobs with, 3D meshes, as well as textures, audio files, and other relevant content required to render the parcel. These are specified so that the client knows what contents the renderization will need, without any instructions on how to place them.

Scripting entry point:

The scripting system controls how the content is placed in the parcel, as well as its behaviour. This enables applications and animations to take place within the parcel. It also coordinates behaviours such as the positioning and movement of objects, the timing and frequency of sounds played, the possible interactions with users, among other features.

P2P interactions:

This allows the client to connect to a server that bootstraps user-to-user connections, coordinates positions and postures, and enables voice chat and messaging

3) Real-time layer: Enable users' world viewers to connect to each other.

Clients will communicate with each other by establishing peer-to-peer connections with the help of servers hosted by landowners or third parties. Without a centralised server, peer-to-peer connections are needed to provide social interactions between users, as well as applications that the landowner wants to run inside the parcel. To coordinate the bootstrap of peer-to-peer connections, landowners will have to provide rendezvous servers or understand that users will not be able to see each other in their parcel.

The maintenance of these servers can be incentivized the same way as content servers. When lightweight protocols like STUN can cover the functionality required from the server, the costs would be fairly low. But for more advanced features, such as a voice chat between multiple concurrent users or network traversal services, micropayments can be used to cover the operating costs.

The social experience of users in Decentraland will include avatars, the positioning of other users, voice chat, messaging, and interaction with the virtual environment. The different protocols used to coordinate these features can work on top of existing P2P solutions like Federated VoIP or WebRTC

The project uses a secure peer to peer infrastructure and the Mana token works in Ethereum network and there are no significant security breaches more than the email phishing attack they suffered the first day of the fashion week [18] hence the project seems to be pretty secure.

In addition to this, as Mana is an ERC-20 token, the transactions can be done through Ethereum network. In addition to this, Polygon network is also implemented for these transactions, partially inheriting Ethereum's security and strongly decreasing transaction fees. This is pretty useful to attract the big mass of people who aren't likely to pay big fees every time they are doing a transaction.

Score: 9

d) Infrastructure - fees and ancillary infrastructure (10 points)

The section above assessed specifically the security of the chosen infrastructure solution. This score, however, looks at the other side of the scalability trilemma - fees and the ancillary infrastructure like bridges, wallets, etc.

Answer:

As Mana is an Ethereum based token, the fees are high. In order to lower them, the game uses a layer 2 solution called Polygon, this is one of the biggest projects in the crypto space and it's known by most people in the crypto space due to the Ethereum Virtual Machine compatibility and low fees [19].

The game is very easy to access, you can play as a guest to just try the game or connect your wallet to start playing. Despite the existence of a windows client, the game can be accessed through the browser, making it very easy for people to join the game and start playing or, at least, try it.

The infrastructure used such as voice chat or metaverse download is transparent to the user and managed by the game automatically, enabling a very simple way of using voice chat or playing without having to download anything and easing the process.

Score: 9

e) Treasury management (10 points)

Treasury management refers to the project's management of its assets and balance sheet. How diversified is its treasury? If diversified, are the assets productive? For example, does the project own its liquidity? Are there procedures and plans in place for managing the treasury?

Answer:

Thanks to the Decentraland transparency Portal [20] we can see how the proposals are approved and how the assets are distributed as well as the income sources [21].

Finally, according to the data obtained in the transparency portal, the team holds:

44,186,524 MANA tokens	-> 87,533,504 USD
340,631 USDC tokens	-> 340,631 USD
17.5 WETH	-> 49,647 USD
1,626,702 USDT	-> 1,626,702 USD
171,502 DAI	-> 171,502 USD
5 ETH	-> 14,185 USD

All the funds combined make a total treasury of 89,736,171 USD worth tokens where the 97,5% of the assets held are MANA tokens [22].

This means there hasn't been a lot of work on treasury diversification and a drop in the MANA token price could affect the treasury in a very aggressive way.

Score: 3

3. Token Economics

The "Token Economics" section assesses the function of a protocol's token. This includes the token distribution, its functionality, the ability of the token to incentivise desired behaviours and value capture potential.

a) Genesis token distribution (15 points)

Token distribution can be an indicator of a healthy protocol and, if done well, can improve coordination and alignment among different stakeholders. Was the initial distribution fair and balanced? Are the tokens distributed widely or is the ownership concentrated?

Answer:

The genesis token distribution was divided according to the following scheme:

- 40% of the initial token distribution will go to the crowd sale.
- 20% for community incentives.
- 20% for the development team.
- 20% will be held by Decentraland.

In the ICO, the quantity supplied was 2,805,886,393 MANA with some burnings:
- 161M MANA ($30M USD at the time) burnt during the first Land Auction, (Dec 2017).
- 109M MANA ($6.6M USD at the time) burnt during the second Land Auction, (Dec 2018).
- 333M MANA burned by the team.
- 100 MANA burnt for every Avatar name claim, (19,548 names have been claimed = 1,954,800 MANA Burnt).
- 2.5% burn fee for Secondary Market Tx's, (Land, Names, Wearables).

The circulating supply right now is 2,193,186,345.45 MANA.

According to the coincarp.com metrics: 17.5% of the tokens are held by exchanges with Binance leading the rank with 13.2% of the tokens. This doesn't mean all of these tokens are held directly by Binance, most of them are probably in Binance wallets but are from the Binance customers and even Binance could offer voting from their platform [23]. The Decentraland DAO holds 44,186,524.615 tokens, representing 2% of the supply [24].

Score: 11

b) Purpose of the token (10 points)

This score evaluates the purpose of a token in the project's ecosystem. For example, does it provide utility? Does it have governance rights attached to it or a built-in value capture mechanism?

Answer:

Mana token is useful in the Decentraland metaverse. It can be used to trade any kind of service, good or sending any economic transaction. As Decentraland works on a DAO, you can wrap a Mana to get a WMana. Each one gives a vote in the DAO. The lands also give voting power in the proportion of 2000 votes per Lan (more on the governance process later on in this report).

This means the token purpose is essentially in-game utility and governance rights in the DAO.

Score: 7

c) Ongoing token issuance / inflation (10 points)

Most tokens have built-in inflation. This section evaluates the purpose of that inflation. Is it justifiable? Does it help improve the coordination and alignment of incentives for the protocol? Does it incentivise positive-sum behaviour? Are the benefits flowing to all relevant stakeholders or just select groups?

Answer:

The MANA contract originally stipulated there would be an inflation rate of 8% per year, however, this was reduced to 0% after a vote by the community.

However, Mana has many burning methods with the following rates to make the coin deflationary [25]:

- Land sold on the Decentraland Marketplace – 2.5% of total sale price is burned.
- Land sold on OpenSea Marketplace – 2.5% of total sale price is burned.
- Avatar / Registered Initial Name Sale – Cost 100 MANA – 100% of total sale price is burned.
- Avatar / Registered Name Resale – 2.5% of total sale price is burned.
- Newly Minted Wearables Sale – Halloween collection 100% burned. No other newly minted items have been sold. Instead, they have been handed out as prizes.
- Wearables Resale on the Decentraland Marketplace – 2.5% of total resale price is burned.
- Wearables Resale on OpenSea Marketplace – 5% of total resale price is burned [26].

Thanks to all of these burning methods, the token benefits the stakeholders from a strong deflation, appreciating with the time the tokens remaining and incentivizing the project token long-term hold. The community preferred and voted for the low inflation rather than a higher inflation model and were able to change it, which is a big difference compared to other more centralised projects.

Score: 9

d) Value capture (10 points)

The ability to accrue value and consequently distribute it to stakeholders can be an effective coordination mechanism and deliver long-term benefits to a project.

Answer:

As stated before, the token helps in both governance and burning methods. Decentraland also has ways to increase or decrease fees, making the game more competent compared to other projects or balancing the treasury with the expenses. Burning methods also are very useful to incentive the long-term holding of MANA since they make the token deflationary. This added to the elimination of the token inflation makes the MANA token a pretty interesting asset to hold.

However, market fluctuations and trends are something to have an eye on in the cryptocurrency market, because of this, token appreciation doesn't seem the most efficient way to distribute/create value to the stakeholders, and Decentraland doesn't give many other ways of getting an extra return on the MANA tokens such as staking or lending/borrowing.

Score: 7

e) Token liquidity (5 points)

Is the token widely available and is there sufficient liquidity to facilitate all protocol functionalities?

Answer:

Mana token is widely available in most exchanges. As an example of this we have Binance, Coinbase, Bybit, Kucoin or Gate. The token is also available in Ethereum Network DEXes like Uniswap, Sushiswap or 1inch and some Binance Smart Chain DEXes like PancakeSwap. Liquidity is high (mainly in Binance, because this is the exchange with the biggest quantity of this token where the volume in the last 24 hours has been $ 293.22M USD) [27].

Score: 4

f) Extrinsic productivity (5 points)

Can the token be used outside of the project's ecosystem? For example, can it be used as collateral elsewhere, be staked for yield or rewards, etc.

Answer:

Mana can be used as a collateral in big protocols such as AAVE or Maker and some exchanges such as Binance, Kucoin. It can also be used for yield farming in platforms like Uniswap where it has pairs with ETH, USDC, 1INCH,

pBTC, MHTN or SUPER. However, its use is a bit limited outside of the Decentraland environment, making this token not as interesting as it could be if it had more uses.

However, on the other hand, it doesn't have many uses outside of the ecosystem other than being able to be used as a collateral for loans in places like Binance [28] or MakerDAO [29].

It would be good something like a Mana staking for the internal game servers consensus that could be distributing a part of the treasury, making the token interesting for the people interested in earning a safe APY over their MANA tokens.

Score: 4

4. Team

The "Team" section describes the quality of the team behind the protocol. The current version of Prime Rating favours teams that are publicly identifiable. In the case of an anon team, the track record of the specific anons involved can be taken into account.

a) Credibility and reputation (10 points)

Are the identities of the core team public? In the case of anon team members, do they have a track record or reputation in the crypto space?

Answer:

As we already know, decentraland is a "virtual reality platform that allows users to explore the metaverse and experience novelty" [30]. The co-founders are Ari Meilich and Esteban Ordano.

In the public documentation available there is not much information about the team and co-founders.

Ari Meilich – Project Lead

Ari Meilich still appears as the Project Lead in icobench.com [31], although he is currently just an advisor since April 2020, as per his LinkedIn [32] and Twitter [33] profiles. In April 2020 he founded Big Time Studios [34], an organisation that has created a game with the motto to "make NFTs accessible to players", where you can team up with friends to adventure across time and space [35]. He is a serial entrepreneur, who also co-founded Benchrise, a "CRM to find and engage with top talent based on their latest projects, interests, and mutual connections" [36]. His academic background is in neuroscience.

According to an article in Medium [37], Ariel has experience in venture capital and data analytics, working previously as an analyst in Charles River Ventures, a leading Silicon Valley venture fund, and as the founder of Benchrise, a big-data company whose product helped find software engineers for tech companies. Before entering the world of tech, he spent two years as a National Institute of Health fellow, performing neuroscience research on human decision-making, while running a BPO agency that catered to clients such as Amazon and General Electric.

Esteban Ordano – Technical Lead

Esteban Ordano also mostly left his involvement with Decentraland in April 2020, but there is no additional information of his current role, apart from still being an advisor for them as per his LinkedIn profile [38]. He has a wide array of experience in different companies (Google, Monits, Bitpay, amongst others) and has also been an advisor for Matic Network.

According to the previously mentioned article in Medium, Esteban is a seasoned blockchain engineer. He co-founded Zeppelin Solutions and led the team that created Streamium, the first app that implemented payment channels, a crucial technology for scaling blockchain payments. As a former software engineer at BitPay, he co-created one of the leading Bitcoin infrastructure libraries, known as Bitcore. He was also on the teams behind Copay (a bitcoin wallet) and Insight (a bitcoin blockchain API).

Esteban spent his formative years competing in maths and computer science olympiads, investing two summers working as a Software Engineering intern at Google. Throughout college, he was also a Tech Lead at Monits, an Argentine software company that was acquired by MercadoLibre. As with other core Decentraland team members, Esteban co-founded Voltaire, a blockchain-focused hacker space in Buenos Aires, Argentina.

Yemel Jardi – Board Member

Yemel is statedly a veteran blockchain developer, Yemel worked on ChangeTip building a micropayment infrastructure for the web before it was acquired by Airbnb in 2016. Before that, he was a Software Engineer at BitPay (the leading Bitcoin payment processor) where he crafted some of the most widely used open source tools utilised by Bitcoin developers worldwide, such as the Bitcore library.

Yemel is also a Professor of Cryptocurrencies at the Instituto Tecnológico de Buenos Aires, and Chairman of the South American Business Forum. He was one of the founding members of Voltaire, a blockchain-focused hacker space in Buenos Aires, Argentina. He has not updated his LinkedIn account since 2018 [39], although he has been active in GitHub, developing in Decentraland and Bitcoin, among other projects [40]. He is not very active on Twitter [41].

Manuel Araoz – Board Member

Manuel was also a founder of Zeppelin Solutions. He is currently not very active in LinkedIn [42] or Twitter [43], but on Github we can see that he is working developing Bitcoin's proof of existence, Solidity-proxy and Decentraland, amongst other matters.

The core developers stated in icobench.com (Dario Sneidermanis, Martín Triay and Nicolás Santángelo) have little to no involvement in Decentraland's development anymore, according to their GitHub.

All in all, we can conclude that there is a lack of public information about the team, and the founders, initial Board Members and Core Developers have much less to no involvement in the project than initially. On the other hand, Decentraland has become a highly decentralised project [44], and it continues being developed actively by a small

community of developers around the globe. The people we have researched are credible, with relevant experience, and are known in the crypto circles and have a solid reputation (some of them are Bitcoin developers as we have seen).

Score: 6

b) Relevant experience? (15 points)

Does the team have a track record of execution? Have individual team members built a product or a business before? Does the team have the necessary skills? For example, if a project is making a game, do they have a game developer?

Answer:

We can say that the initial co-founders and co-team had different and very synergistical backgrounds. Ariel Meilich has experience in entrepreneurship and venture capital and data analytics, with an academic background in neuroscience. Esteban Ordano seems like the more technical person, with knowledge in blockchain engineering, working for important projects (Bitcoin, Bitpay, Zeppelin, etc.). Yemel Jardi and Manuel Araoz also seem to have a well-seasoned technical background.

These people have a clear background of execution, they have developed and built products and businesses before that have helped build the blockchain ecosystem. Specifically, for the project of Decentraland they seem to have relevant experience required to at least kickstart it, which is what they have done. In such a decentralised project the important thing is to gain the initial attention and to be able to bring developers, which they have done successfully too.

Score: 9

c) Thought leadership and public presence (10 points)

To what extent do the protocol contributors participate in the public debate around the metaverse? Are the team members giving presentations, sharing their thoughts and opinions, and do they help raise the industry's collective intelligence?

Answer:

The co-founders and the core team has actively participated in the public debate, accepting interviews, and shaping the public debate, especially around the metaverse. Ari Meilich has participated more actively lately in interviews about Bigtime, his new game project [45]. The other co-founder, Esteban Ordano, has also actively participated in the public debate. Yemel Jardi has been participating in the public debate, doing conferences and talks about Bitcoin and other interesting topics [46].Manuel Araoz has also participated in some interviews [47]. The most important thing about these individuals is not their participation in interviews, conferences or talks, but their activity in GitHub, where most of them have been most dynamic. All in all, we can conclude that they occasionally participate in the public debate.

Score: 5

d) Ability to foster a community and coordinate resources (15 points)

How effective is the team at attracting and coordinating resources for the benefit of the protocol? Do they manage the community well, fostering a welcoming and positive environment? Does the community represent the project well externally?

Answer:

The community that Decentraland has been able to gather is impressive. Decentraland's "population" of roughly 800,000 registered profiles has already surpassed Vegas's own. According to its current CTO, its "city" expanded by 3,300% between December 2020 and December 2021. This figure doesn't include the ~70% of visitors that are "guests," and as such, not recorded in the system [48]. We can see that not only in the users/gamers, but also on the developer side in Github [49].

So we can safely conclude that the team has attracted sufficient human resources and has fostered a passionate community, definitely one of the most passionate communities in the crypto space. It has attracted even big TradFi players like JPMorgan Chase & Co. [50], who opened a lounge and created a report on the metaverse [51].

Also, they have been able to attract funds from big corporations like Samsung [52]. This is a clear sign that it has been able to attract a lot of financial resources outside the typical venture capital scheme and processes.

Additionally, as we saw in the intellectual property section, they have protected their patents, design rights and other rights in inventions and discoveries, also trademarks, service marks, trade dress and other logos and similar items [53].

Score: 15

5. Governance

The "Governance" section evaluates all aspects of the protocol's governance, from infrastructure to processes and distribution of governance power.

a) Extent of governance capabilities (10 points)

Distributed governance should allow token holders to participate in the governance process. How much influence does the current governance process have when everything works as intended? What parts of the protocol does governance touch? Who can put forward a vote, and are there any limits or requirements (number of tokens, only the team can queue votes up, etc.)?

Answer:

Decentraland's governance is one of the most decentralised in the space. Since May 2021 there have been 925 proposals about changes in the game and other aspects [54]. 15 of them are active currently. The main categories of proposals are [55]:

1. Point of Interest: to highlight a noteworthy Decentraland location on the map for others to find.
2. Catalyst Node: to add a note to the network of community-run servers.
3. Name Ban: to ban an offensive name from Decentraland.
4. Grant Request: where funding from the DAO is requested for a project or contribution.
5. Linked Wearables Registry: where anyone can request to be admitted as an approved partner to create wearables as representations of their NFTs in Decentraland.

Anyone can create a pre-proposal poll [56], where the sentiment of the community can be gathered, along with some feedback to make it better. After (or without) that, the same person/group of people can draft a predefined proposal.

Additionally, anyone is able to see their balance of MANA, and so being able to analyse their voting power [57], which can include delegated voting power from other addresses.

The Decentraland DAO is the decision-making tool for MANA, NAMES and LAND holders in Decentraland's virtual world. Through votes in the DAO, the community can issue grants and make changes to the lists of banned names, POIs, and catalyst nodes. The DAO also controls the LAND and Estate smart contracts. The proposals, votes submitted, and final results are all stored in IPFS via Snapshot, a gas-less voting client. Approved proposals with binding actions are enacted on the Ethereum blockchain by a committee by means of a multi-sig wallet. This committee is overseen by the Security Advisory Board (SAB), another multisig with trusted key holders. This Committee was voted into place by the community in the previous release of the DAO [58].

We can see that the community of token holders determines major parameters and the protocol direction, with votes on in-game decisions, DAO's funds for grants, and on changes to the governance of the DAO. It is powered by smart contracts [59].

Score: 9

b) Active governance contributors (5 points)

Governance is time-consuming, and governance apathy is a common problem in most democratic systems, including crypto. Therefore, it's essential to have a sufficient number of community members allocate resources to the governance process of the protocol. How many individuals participate in the debate around the protocol? How active are voters? Is delegation enabled?

Answer:

There are many active governance contributors. One can see that in many different sources like Discord [60] or their Forum [61], which are extremely active. Also, we can see that, in less than a year, since May 2021, there have been 925 proposals, an astonishing amount that places Decentraland as one of the most active and dynamic communities in the crypto space.

Delegation is enabled [62]. There was an open call for delegates done in January 2022 [63]. Any user can delegate all their VP to another address (although it is not possible to delegate a portion of it or to distribute it among multiple

delegates. However one could distribute their assets in different addresses and delegate VP from each of those addresses). VP delegation is not transitive: if A delegates to B, and B delegates to C, A's VP is not delegated to C. That means that B cannot give A's VP to C. Authorising delegation requires an on-chain transaction, which involves paying an Ethereum gas fee. After delegation, a user can still vote on the governance platform. If both the user and the user delegate vote on the same proposal, your vote will override the vote of your delegate. Any user can change or revoke the delegation at any time, making another on-chain transaction.

Score: 5

c) Governance infrastructure robustness (10 points)

Robust infrastructure relates to how well the technology, software, and models used by the protocol's governance withstand actual use cases. Does the protocol have a reliable voting mechanism? How robust is the governance process, and does it facilitate good governance? Are the votes binding, or do they function solely as signals to the team?

Answer:

As we have already seen from the previous questions, the governance infrastructure is very well thought, robust and engineered in order for it to be as simple and clear as possible, so that anyone can participate with extreme ease. The protocol has reliable and timely debates (in Discord and the Forum), a fair, public and a seemingly reliable voting mechanism (Snapshot as an off-chain voting mechanism) and execution (powered by smart contracts), making the votes binding.

Score: 9

d) Process and ease of use (5 points)

This score is based on the documentation and process for governance. More specifically, how easy it is to participate in governance. Does the protocol have a formal governance process? Is sufficient documentation available? Is there a basic framework to establish social consensus? Are there channels dedicated to governance debate?

Answer:

The process is extremely well documented [64]. It is extremely easy to understand how the governance process works and to participate in it creating pre-proposal polls or proposals. Everything is very clearly explained in the user guide for the community to understand and participate. From how to log in until how to delete a proposal. We have also seen that not only the documentation is readily available and clear, but also the process is done in the governance page of decentraland's website [65]. There are low barriers of participation for anybody. To submit a pre-proposal poll one needs to have 100 VP (Voting Power). Voting power is calculated in the next way:

- 1 MANA contributes 1 VP
- 1 NAME contributes 100 VP
- 1 LAND parcel contributes 2000 VP
- Each Estate is worth 2000 multiplied by the number of single LAND parcels in that Estate. For example, an Estate with 2 parcels will contribute 4000 VP to your total voting power.

So we can see that there are channels for public debate (Discord and the dedicated Forum), with a clear framework and platform to make the decentralised governance process as easy as possible, which means low barriers for participation for newcomers.

Score: 5

About the Author:

Carlos Koljonen is a financial professional that has previously worked for Stoxx limited as an Index Analyst (Corporate Actions Department). He also led the Investment Analysis department for an investment company in the cryptocurrency markets, performing fundamental research over various projects, technical analysis, and deciding over the company's exposure to crypto at any given time.

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