BLOCKCHAIN REPORT

REFLECTION & OUTLOOK 22/23



Content

Content	2
Introduction	3
Reflection of 2022 & Q1 '23	4
How to Invest	9
Outlook 2023+	10
Bitcoin	12
Digital Wallets	15
Blockchain Gaming & Metaverse	16
DAOs (Decentralized Autonomous Organizations)	19
DID (Decentralized Identity)	21
Sustainability	23
DePIN (Decentralized Physical Infrastructure)	25
Building an Investment Thesis	28
Conclusion	30



Introduction

The investment climate is changing, and investors need to create financial legacies that will stand the test of time. Over the last decades new technologies have tremendously evolved such as blockchain, AI, VR, IoT, cloud computing and much more. VIRA Ventures aims to be at the forefront of this wave of innovations and invests actively in groundbreaking projects bringing these technologies to the masses and furthermore, we help investors access the ever-evolving digital economy to build their future in the present with our tailor-made investment products. In our opinion blockchain & crypto is one of those "key-pillars" of our future, intelligent, data-driven, digital world.

This report should help investors understanding what is going on in the whole crypto economy by reflecting the past years and especially figuring out what the future brings. The goal is to help shaping your own mental model & investment thesis for the exponential age already happening at an unbelievable speed.



Reflection of 2022 & Q1 '23



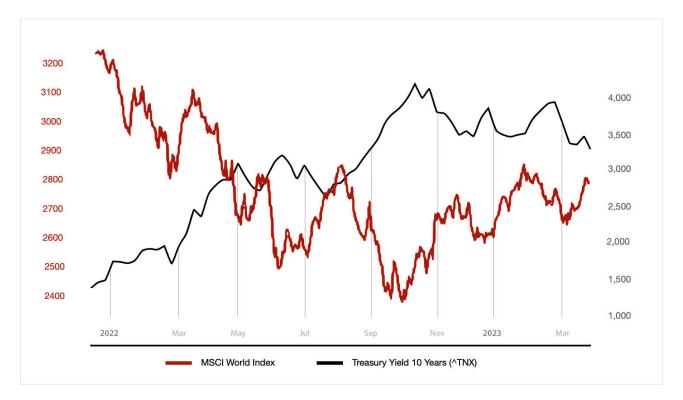
In 2022, the global economy struggled under macro and geopolitical headwinds, including monetary tightening by central banks around the world to combat inflation, the conflict in Europe, supply chain disruptions, and lingering effects of the COVID-19 pandemic. As a result, the expected global GDP growth in 2022 is 3.2%, a sharp drop from ~6% in 2021. Meanwhile, the inflation growth rate continued to spike, reaching 8.8% YoY.



A lot of people lost money in 2022. Some poorly managed companies went under (normal in capitalism, pre-2008). But many of the survivors are well capitalized and shipping new products. The whole macro economy had a bad year which you can see in the chart below showing that the MSCI All Country World Index of global equities has fallen about 19% this year, as well.



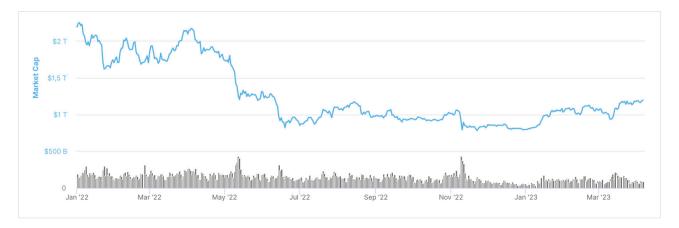
However, the core theses generally remain unchanged, and now we're left with true believers and long-term builders – fewer gamblers, scammers, and tourists, which is a good thing.



Global Stocks and Treasury Yields / Source: VIRA Ventures

In addition to macro headwinds, the crypto market was also negatively impacted by several events, notably the Terra stablecoin (UST) collapse in May and the FTX bankruptcy in November. Both events and the subsequent fallouts produced ripple effects, which affected other players in the ecosystem, and dampened confidence in the sector. It's arguably still "Crypto Winter" at the time of writing, as you can see in the chart below showing the total market cap of the crypto market declining over 60% only in 2022. That being said, it is natural for market cycles to fluctuate between bearish and bullish periods. We have seen that many times in the past.





Combined Market Cap of Cryptocurrencies / Source: Coinmarketcap

Major Achievements in 2022

Despite the crypto inherent issues that have added selling pressure to the already high volatility and poor prevailing market conditions, there have been some essential technical improvements that will enable mass adoption in the coming years. One of them was the Merge of Ethereum.

Ethereum's Merge is widely considered one of the most anticipated crypto events last year. Successfully completed on 15 September 2022, The Merge witnessed the final step of the Ethereum blockchain's transition to a proof-ofstake (PoS) consensus mechanism from proof-of-work (PoW).

One of the positive effects of The Merge is that Ethereum's energy consumption dropped by a whopping 99.95%, as PoS does not require the energy-intensive mining rigs of proof-of-work (PoW). Instead, PoS blockchains rely on validators to verify the transactions. The PoS Ethereum blockchain's energy consumption is estimated to be roughly 1% of PayPal, and orders of magnitude smaller than PoW networks.

Very often, the masses do not give a technical update the credit it deserves, because the new possibilities in the final applications that result from it are not yet tangible for most people. Only when a concrete application is finally born



from it, which makes the benefit perceptible to the people, one understands its true value. The same applies to technical improvements of Layer-1 Blockchains, such as Ethereum, which consequently provide companies, developers, community members or creators of any kind with new tools & possibilities to develop various dApps.

Generally speaking, the success of a Layer 1 blockchain relies on several crucial features. These include security, scalability, decentralization, and interoperability.

Security is paramount in any blockchain network, and Layer 1 blockchains achieve this through their consensus mechanisms, such as Proof of Work (PoW), Proof of Stake (PoS), and others. In 2022, some Layer 1 blockchains like Bitcoin and Ethereum have successfully maintained their security through their PoW/PoS consensus mechanisms.

Scalability is another important feature that enables a blockchain to handle a high volume of transactions per second. Layer 1 blockchains like Ethereum are working towards achieving scalability through various layer 2 solutions & technologies such as rollups, sidechains, and Plasma. These solutions help to reduce the burden on the main blockchain, allowing it to handle more transactions.

Decentralization is also critical as it ensures that no single entity controls the blockchain network. Especially Bitcoin has achieved a high degree of decentralization, making it difficult for any one entity to control the network.

Finally, interoperability is an essential feature that allows different blockchain networks to communicate and interact with each other. Layer 1 blockchains like Polkadot, Cosmos, and Avalanche have made significant strides in achieving interoperability by allowing seamless communication between different blockchain networks.



In 2022, Layer 1 blockchains from a fundamental perspective have made significant progress in achieving some of these features and we can expect to see even more innovations and advancements in the years to come.

Taking advantage of market inefficiencies

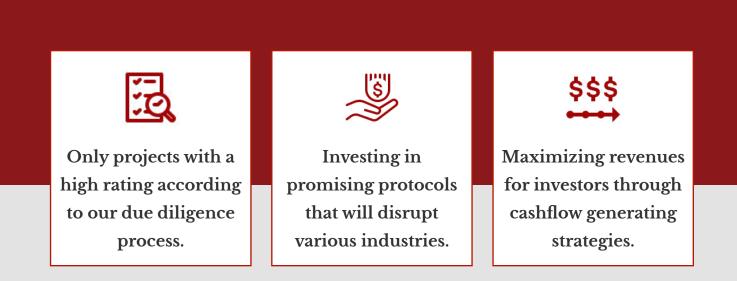


Also worth noting is that the setbacks from 3ac, Luna, FTX and other insolvencies have dragged the entire market down, leading to a general **revaluation of crypto assets**. Nevertheless, we recognized significant mispricing of some chains, where in some cases the foundation's treasuries were higher than the total market cap of the respective chain. When watching closely and digging deeper, such inefficiencies in the market hold immense potential for long-term value investors who have as their primary objective to acquire assets as soon as their price is below its underlying value.

However, such setbacks undoubtedly diminish confidence in the industry in the short-term, but do not stop the rapid developments to realize the common long-term vision.

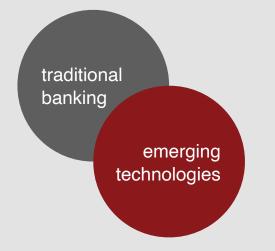
How to Invest

We can provide access to an actively managed certificate for a diversified investment in blockchain infrastructure protocols.



About

Since the emergence of the blockchain technology, digital assets and especially cryptocurrencies establish themselves as a new investment sector. Get access to this new asset class through a spot only investment AMC and benefit from the mass adaption of blockchain technology in the coming years. Visit our website for more information. **www.vira.ventures**



17+

years of combined experience in blockchain assets Trusted

maintaining a close connection with investors

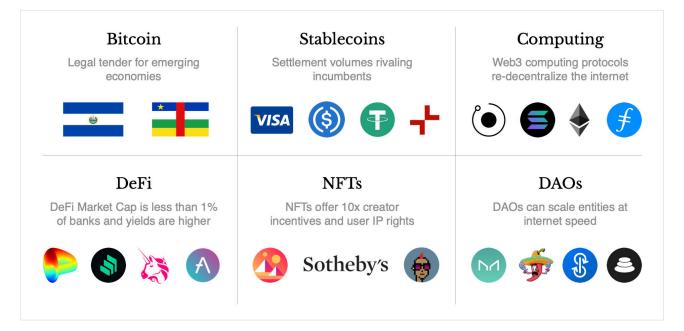
Request detailed information about our **Blockchain Select AMC** at contact@vira.ventures



Outlook 2023+

The transformation of an idea is much like the growth of a child; gradual and constant. We can easily overlook tiny changes along the journey, but then, one day, see them in their totality and gasp "when did they get so tall?! Slowly, quietly, then all-of-a-sudden. This is the nature of progress.

Crypto remains inevitable because we've made significant progress in the build-out of bitcoin, stable- coins, distributed computing, data storage, blockchain scalability, decentralized financial primitives (DEX, lending, asset issuance) and governance structures. These innovations will not be uninvented.



Innovations that will not be uninvented / Source: VIRA Ventures

There's also a big difference between this crypto winter and previous cycles: **dry powder**. As on-chain analysis shows, most of the capital did not really leave the crypto ecosystem, but it sits in stable coins. If investors wanted to really leave the ecosystem, they would have sold in FIAT, but as it is parked in stables, we expect many investors, especially institutions to wait for stabilization in the markets before deploying their dry powder again.

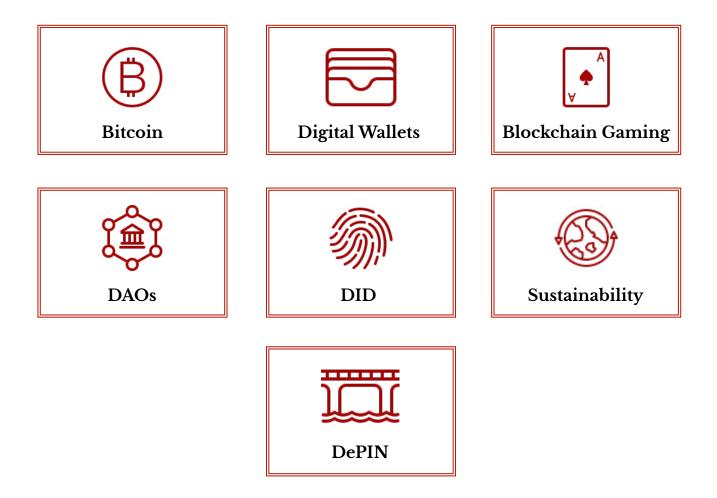
In such time, liquidity is king and deploying capital cautiously during the "market consolidation phase" has been the best strategy if we look back to previous cycles.



True builders love bear markets as there are less noise and more focus on building true value and consecutively accelerating progress and real world adaption. In the years to come, we expect many new use-cases emerging on top of the blockchain infrastructure that will power the next cycle. However as crypto is not "isolated" from macro conditions we have to carefully monitor external factors and their influence on the markets, but generally speaking nothing can stop innovation offering new values for society.

Interesting things to watch in 2023+

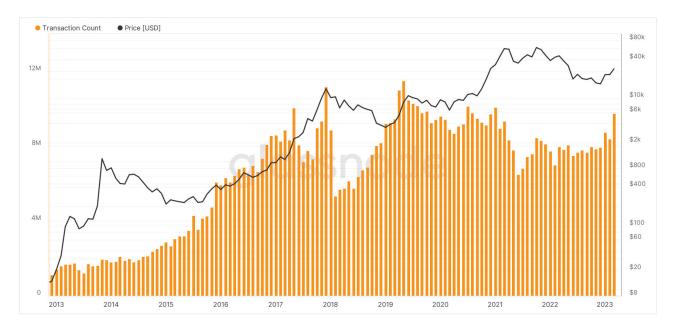
In this section, we highlight some interesting applications & trends that could bring billions of users into the blockchain ecosystem in 2023 and beyond. More applications on the blockchain will increase end-user usage rates and lay the foundation for a thriving, valuable ecosystem.





Bitcoin

Bitcoin's market capitalization still represents a fraction of global assets and is likely to scale in the coming decade. Despite the significant correction in 2022, in 2021 Bitcoin's cumulative transfer volume increased by 463% and its annual settlement volume has surpassed Visa's payments volume. In 2022 Bitcoin crossed over USD 100 trillion in cumulative transfer volume, with roughly USD 105 trillion having been settled on the network in total. This is a tremendous feat, illustrating how millions around the world have utilized Bitcoin as a global settlement network.



Bitcoin: Number of Transactions / Source: Glassnode

Bitcoin's innovative potential rests in its ability to facilitate the transfer of value without relying on a centralized authority. It has the potential to bring down payment fees by over 90% compared to the traditional banking system, making it far more efficient and resilient.

Moreover, Bitcoin's network effects, growing institutional adoption, and increasing merchant acceptance have created a self-reinforcing cycle that is driving further adoption and usage of the cryptocurrency. As a result, we believe that Bitcoin has the potential to become a significant component of a diversified investment portfolio and that its risk-reward profile warrants consideration from investors seeking exposure to the digital asset space.



Bitcoin is seen as digital gold, but many think over time it could find its place as a new form of digital money. However, there are still some problems that have to be addressed for achieving that vision like scalability of micro payments, volatility and regulation.

BTC is beginning to act more like a credible neutral reserve asset if you look at the core fundamentals of BTC as a robust, digital, monetary energy network apart from the failure of centralized crypto entities. From both a MVRV (calculates the difference between market and realized capitalization levels) and risk return standpoint, BTC seems a bit more attractive today. Bitcoin's parity with gold would yield a 25x return, so there's a lot to like in adding a 4% position in digital gold for every ounce of gold you buy. At today's prices, bitcoin-gold parity would bring us a \$500,000 bitcoin.



Bitcoin: MVRV Z-Score / Source: Glassnode

"Bitcoin is one of the purest plays on fiat currency debasement. It also happens to be one of the most leveraged bets on global liquidity; when liquidity is abundant and expanding, BTC and crypto assets tend to outperform; when liquidity tightens, they struggle."



Liquidity cycles aren't new — we've seen their power before. Global liquidity growth slowed considerably back in 2018 as financial conditions became more restrictive. The result was a sizable correction in risk assets and a prolonged bear market for the most speculative long-duration assets (like crypto). We saw a similar dynamic play out over the last 12 months, though on an even greater scale. Global liquidity cycles drive changes in asset prices. They influence the direction of global equity markets. They drive fluctuations in bond yields and credit spreads. They even have a substantial impact on the crypto market, which is why a reversal in global liquidity is one of — if not the most — important catalysts for a renewed bull market.

We think whatever Bitcoins evolution will bring because of its technological feature such as censorship resistance it offers an insurance against the failure of centralized fiat currencies for relatively low cost already today, which could be a very valuable thing in the future especially considering high inflation rates. Once the dust settles we expect an ongoing continuation of Bitcoin's adaption among both institutions and individuals making it an attractive assets class in the long run.



Digital Wallets

Digital wallets allow anyone with a connected device to transact money instantly, transforming commercial and financial experiences. Consumers hold the power of a bank branch in their pockets and demand wholesale pricing for many financial transactions, changing their relationships with financial service providers. We believe that trillions in annual cash transactions will be digitized, presenting a data monetization opportunity roughly equivalent to that of Google Search. Digital wallets could become the point-of- contact for a variety of digital services. Traditional financial services institutions could be at risk.

However, most of digital wallets in the blockchain sector are difficult to use and bear security risks. We see a lot of potential in further developments of digital wallets as they are a key component of using dApps and accessing the crypto ecosystem as a whole.

One potential trend in the future of digital wallets is the increased use of mobile devices as a means of accessing and using them. Many digital wallet providers already offer mobile apps that allow users to manage their digital currencies on the go, and it is likely that this trend will continue as more people use their smartphones as a primary means of accessing the internet.

Overall, the future of digital wallets is likely to be marked by increased adoption and use, as well as continued innovation and improvement in the underlying technology.



Blockchain Gaming & Metaverse

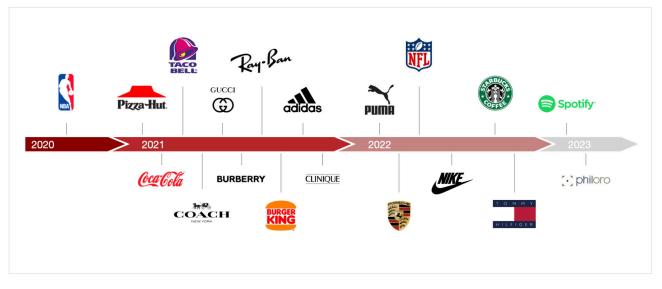
Web3 gaming is all about giving players ownership of their in-game digital items and using tokens to create in-game economies (and potentially, game governance). Players with a stake in the game they're playing, whether through in-game items or quasi-equity (tokens), will feel more invested in the game's success and spend more time and money playing. If you hit critical mass amongst players, they'll want to buy and sell items (NFTs), and an ingame economy can emerge that shifts the traditional gaming business model.

Different Models

- **Pay-to-Play** models require end-users to purchase games at a fixed cost.
- **Free-to-Play** models are replacing Pay-to-Play and unlocking a larger customer base. Virtual goods and gaming-as-a-service are increasing the revenue upside for game developers.
- Because NFTs recognize the ownership of in-game assets, they are enabling **Play-and-Earn** models. Games can raise capital and reward users through NFT sales and in-game rewards.

Whether it's digital only (NFTs that can be worn in games and metaverses and transferable and composable across platforms, ideally) or digital/physical hybrids (NFTs that can be redeemed for physical items, or rendered on a person in a picture or video), there is plenty of demand. Gucci sold a digital version of one of its physical bags on Roblox, and it sold for \$800 more than the "real" thing. Digital items will become more commonplace as gamers demand more customization around their digital identities.





Major Brand Flagship NFT Launches / Source: VIRA Ventures

Metaverse

The metaverse is a concept that refers to a virtual shared space that can be accessed by users through the internet. It is often described as a collective virtual shared space, created by the convergence of virtually enhanced physical reality and physically persistent virtual reality.

As the metaverse grows, so too will its potential as a marketing platform. Metaverse marketing is becoming increasingly popular as businesses seek to reach a wider audience in the virtual world. In a completely immersive environment, businesses can acquire deeper insights into their customers' consumption trends by tracking how they react to different products and services.

With this information, they can then enhance various marketing campaigns or strategies accordingly and create better branded virtual experiences for your customers. The possibilities of metaverse marketing are endless—and some brands are already doing this!

Apart from offering business owners the chance to be more marketing-savvy, the metaverse will also be a platform promoting efficient remote work. The metaverse office allows us to meet with clients from all over the world, work



with remote team members and train and onboard new employees without the limitations of physical distance. This would greatly reduce the cost of doing business and operations, which will especially benefit startups of smaller sizes.

In addition, with the advancement of AR and VR technologies, consumers will have greater access to the metaverse. With AR/VR technology, users can interact with virtual 3D objects even without wearing a headset. Disney, for example, is developing AR experiences at its theme parks that do not require 3D glasses.

The metaverse has huge potential to transform various industries and create new opportunities for businesses and investors, but the limiting factor at the moment is accessibility and the technological components required to make it mainstream. The development of the metaverse requires high-quality hardware and software, as well as significant investment, which currently limits its adoption. However, as technology continues to improve, become cheaper according to Moore's Law and consequently more accessible, we will see the metaverse gain wider adoption in the future.



DAOs (Decentralized Autonomous Organizations)

A decentralized autonomous organization (DAO) is a type of organization that is run using smart contracts on a blockchain. DAOs are designed to be autonomous and decentralized, meaning that they are not controlled by any single individual or entity. Instead, they are governed by a set of rules that are encoded into the smart contracts that form the foundation of the DAO.

The promise of DAOs is that they can enable organizations to operate in a more transparent and efficient manner, without the need for traditional hierarchy or central authority. Because decisions are made using pre-determined rules that are encoded in the smart contracts, there is less room for human error or bias. Additionally, because DAOs are decentralized, they are potentially more resistant to censorship and interference than traditional centralized organizations.

DAOs, or Decentralized Autonomous Organizations, have the potential to be the future of governance for all kinds of operations, including enterprises, countries, and monetary systems. This is because DAOs are designed to operate on a decentralized blockchain platform, which eliminates the need for a centralized authority or intermediary to govern decision-making and value creation.

This is a significant departure from traditional governance models, which rely on human interaction and decision-making. Over hundreds of years of time, fiat currencies and other forms of governance have failed because of human biases, corruption, and other factors that undermine their stability and effectiveness.

With DAOs, we can replace humans with transparent and automated rules that are enforced by the blockchain network. This has the potential to create a more efficient, transparent, and democratic system of governance that is not subject to the same biases and vulnerabilities as traditional governance models.



For example, DAOs can be used to create decentralized monetary systems that operate on transparent and automated rules, rather than relying on the discretion of central banks and other intermediaries. Similarly, DAOs can be used to create decentralized nation-states that operate on transparent and democratic principles, rather than relying on the authority of centralized governments and leaders.

Of course, there are still significant challenges and risks associated with the adoption of DAOs as the future of governance. These include regulatory uncertainty, security vulnerabilities, and governance issues. Nonetheless, we believe that DAOs represent an exciting and promising development in the world of governance and have the potential to transform the way we organize and govern ourselves in the future.



DID (Decentralized Identity)

In today's digital age, data has become one of the most valuable assets for individuals, businesses, and governments alike. However, as the amount of data being produced continues to grow exponentially, it has become increasingly difficult to ensure that the data is real and not manipulated in any way. This problem is only going to be exacerbated with the rise of AI, which has the ability to create deceptively real deep fake content at an alarming rate and at virtually no cost.

Decentralized identity (DID) provides a solution and refers to a system of identity verification that is based on blockchain technology. In a DID system, individuals or organizations can create a unique digital identity that is stored on a decentralized network of computers, rather than being tied to a particular company or organization.

One of the main benefits of decentralized identity is that it gives individuals more control over their personal information. In a traditional centralized identity system, an individual's identity is often tied to various pieces of personal information that are stored on servers controlled by a single company or organization. With decentralized identity, individuals can choose which pieces of information they want to share, and with whom they want to share it. But not only personal data, think of all kinds of digital content being distributed all over the internet.

Imagine, for example, in a presidential election campaign, you want to form a qualified opinion of the candidates before you vote for someone, and in your research or on social media you come across a plethora of fake videos that are indistinguishable from real videos. How do you make sure which content is real and which is AI-generated fake content? There is a clear incentive for political parties to use AI and create fake videos about the competing parties in order to increase the likelihood of winning the election. Not only for this case, but generally speaking, we have to make sure that there is a censorship-resistant ledger of truth covering verified data and enabling trust among our society.



This makes blockchains an ideal solution for ensuring the authenticity and provenance of data. By using blockchains, individuals, businesses, and governments can create a secure and transparent system for recording and sharing data. This can help to combat the problem of deep fake content and other forms of manipulated data that can be used to spread false information or harm individuals and organizations.

In addition to providing security and immutability, blockchains also offer a number of other benefits for data management. They can help to reduce costs by eliminating the need for intermediaries and can improve efficiency by enabling real-time data sharing and collaboration. They can also improve transparency by providing a clear audit trail of all data transactions.

In conclusion, the exponential growth of data production and deep fake content caused by AI is a significant challenge that needs to be addressed. Blockchains offer probably a unique and the only powerful solution for ensuring the authenticity and provenance of data and are poised to play an increasingly important role in data management and governance in the years to come.

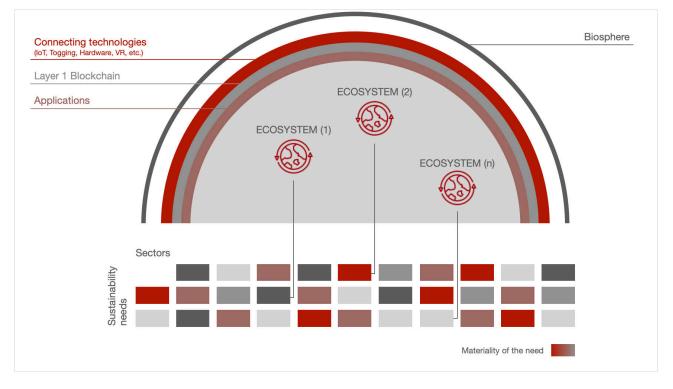


Sustainability

Blockchain technology is increasingly being seen as a critical enabler of sustainability efforts around the world. Sustainability is all about creating a world that is livable for current and future generations. To achieve this, we must effective take steps to reduce our carbon footprint, protect the environment, and ensure equitable access to resources.

Blockchain biospheres are industry-spanning ecosystems dedicated to solving specific sustainability needs, whether tackling sustainable approaches to global logistics trails or quantifying carbon capture and tokenizing emissions reductions of the energy sector. An effective usecase for sustainable biospheres is a blockchain-based carbon credit ecosystem.

A blockchain-based carbon credit ecosystem has the potential to revolutionize the way individuals and companies participate in reducing carbon emissions. By using a token mechanism, individuals can be incentivized to behave in a more sustainable and eco-friendly way, thereby contributing to the overall reduction of carbon emissions.



Blockchain Biosphere for Sustainability / Source: VIRA Ventures



Sustainability is not a project; it must be deeply rooted in the daily habits of individuals. That is very difficult to achieve as we can see with failing political efforts. To get everyone involved in sustainable behaviour a token-incentive structure is needed that is directly integrated into the end-user applications supported by a blockchain protocol.

A token mechanism operates by rewarding individuals who engage in sustainable activities such as using public transportation, reducing energy consumption, and recycling. The tokens are then stored on a blockchain, which provides a secure and transparent ledger that tracks all kind of transactions such as carbon credit transactions.

This system creates a win-win situation where individuals are incentivized to adopt sustainable behaviors, and companies can purchase carbon credits to offset their emissions. By using this system, individuals can have a direct impact on the environment while being rewarded for their efforts.

A blockchain-based carbon credit ecosystem has the potential to transform the way we approach sustainability and requires collective efforts to build. It provides a transparent and secure platform that can bring together individuals, companies, and governments in the fight against climate change.



We believe that such a concept is an effective solution to fight climate change and that blockchain is the only way to build such biospheres through automated micropayments & smart contracts. Even though it is a big challenge and will take a while to onboard companies and build new systems and regulations around it, the urgent need for sustainability is the biggest consensus in the whole world. Blockchain & Web 3 is in its fundamental basic structure, made for such applications.



DePIN (Decentralized Physical Infrastructure)

The emergence of decentralized physical infrastructure networks (DePIN) represents a paradigm shift in the way we think about how to operate networks and presents a unique investment opportunity with significant growth potential.

Traditionally, infrastructure has been built and maintained by centralized entities, such as governments or private companies. However, this model has its limitations: it can be slow, inefficient, and often fails to address the needs of local communities. Moreover, centralized infrastructure can be vulnerable to single points of failure and can be difficult to upgrade or adapt to changing circumstances.

Decentralized physical infrastructure networks, on the other hand, are built and maintained by decentralized communities using blockchain technology and smart contracts. This new infrastructure model creates a trustless and permissionless environment where users have control over the infrastructure they use and can contribute to its maintenance and development. Moreover, it allows for the creation of new forms of economic activity and value creation, such as decentralized energy grids, transportation, communication, storage & compute networks.

Relative to traditional forms of human & capital formation for building physical infrastructure, these permissionless and credibly-neutral protocols:

- Can build infrastructure faster—in many cases 10-100x faster
- Are more attuned to hyper-local market needs
- Can be far more cost effective



Throughout history, centralized capital formation has been the norm, where a single company controls the compensation of its stakeholders. However, this model is outdated in the internet age. Instead of relying on a central entity to make all the decisions, a permissionless network designed to scale and reward its most productive actors using the principles of supply and demand is more effective.

In the past, small-scale operators were unable to compete with large corporations in the deployment of infrastructure such as telecommunications, electric grids, storage, computing and third-party logistics.

But with the advent of proof of physical work, there is a paradigm shift in the way businesses operate and scale. Through crypto-economic protocols, individuals can coordinate their economic activities without relying on a centralized party to extract rent. This will lead to new value creations through efficient human & capital allocation giving the power back to the users.

Our physical survival depends on the decentralization of hardware. The war against censorship will be fought in the cloud, and how effectively we wrest control of that infrastructure from Big Tech monopolies could be the difference, as we hang in the balance between an open internet and a global police state.

Decentralized Physical Infrastructure Networks (DePIN) help bootstrap decentralized networks of physical hardware. Things like data storage, wireless internet access, cloud computing & GPU rendering require lots of capital expenditure and operational headaches, and it's a non-trivial challenge to scale a hardware network to viability.

Tokens have proven effective at catalyzing the development of these networks as they coordinate decentralized hardware investment at scale. This is a sector dominated by three of the largest and most reliable tech companies in the world – Microsoft, Google, and Amazon. That means partnerships, business development, and organic demand may be tougher to come by than other areas of crypto, and success hinges on a continuation of the trend towards greater Big Tech censorship.

© VIRA Ventures 2023



We believe crypto infrastructure will grow exponentially in regions where governments tighten their grip on dissent and crack down on speech, and there is tremendous opportunity for catering to gray market customers.

The same things that make this a challenging sector, also make it critically important and interesting for investors in the years to come. Hundreds of billions of dollars worth of spending. The backbone of the free and open web. That's the long-term trifecta of mission, market need, and monetizability we like to see!

Building an Investment Thesis

As you can see there are many opportunities & use-cases being developed in the blockchain space behind the scenes and where it is only a matter of time before they reach a stage of development where we use these decentralized applications in our daily lives.

One could describe the development of blockchain networks, as a collective attempt to rebuild the internet on a new transparent, distributed and more equitable foundation. While this disruptive process (secular trend) takes time and is accompanied by short-term volatility (business cycles), it is crucial for investors to explore how to capture some of the accelerating value creation that is taking place.

For every investor it is crucial to build their own thesis before considering investing. In our point of view an investment thesis for blockchain technology would typically focus on the potential for growth and disruption in various industries as a result of the adoption and implementation of blockchain technology.

There are a few key factors to consider when developing an investment thesis for blockchain:

- I. **Adoption and implementation:** Blockchain technology is still relatively new and it is not yet widely adopted in many industries. Therefore, companies and protocols that are at the forefront of adoption and implementation of blockchain technology may be well-positioned for growth in the future.
- II. **Use cases:** Identifying specific use cases for blockchain technology where it can bring significant value, such as in supply chain management, digital identity, financial services, gaming and many more, can help to identify companies and protocols that are well-positioned to benefit from blockchain's adoption.

- III. Infrastructure: Blockchain infrastructure companies/protocols, like those providing protocols, development platforms and other foundational technology, may also provide a good investment opportunity as they are crucial for the ecosystem to function and grow.
- IV. Regulation: Blockchain and digital assets are still in a regulatory grey area for many countries. It is important to pay attention to any upcoming legal changes that could impact the blockchain ecosystem, and companies that are well-positioned to comply with regulations.
- V. Network effect: Blockchain technology relies heavily on network effects to build value. Therefore, projects and companies with a large, engaged and growing community of users and developers are more likely to be successful in the long term.

It's worth noting that investing in blockchain technology carries risk, just like any other investments, and it's important to conduct thorough research, consult with experts, and understand the risks associated with your investment before making any decisions.

Conclusion

We can say that despite a very tough last year it was nothing new looking at the history of crypto. There have been many important key events and technical updates of blockchains that went live under the radar and had very meaningful implications for future innovations.

Looking ahead to 2023 and beyond, we are more optimistic than ever that crypto adoption - both retail and institutional - will continue growing at a steady pace. We are excited about new infrastructure developments and how they would make blockchains more accessible & scalable, such as modular blockchains and the advancement of parallel processing. We are also watching out for more utility-based use cases to emerge in DeFi, NFTs and DePIN, as well as the birth of higher-quality blockchain games, including AAA titles. We remain bullish on Web3 and look forward to seeing more innovations around digital identity and social networks.

Finally, 2022 was a reminder to everyone that security sits at the foundation of any business. We are hopeful that companies and projects will continue investing in strengthening their security, together with educating users to empower them in making informed decisions.

If you are interested to learn more about our service & investment opportunities visit us at **www.vira.ventures**.

Disclaimer

The following written content is exclusively for the purpose of education and knowledge transfer regarding current events in the crypto market ("market"). This applies in particular with regard to the blockchain projects described in detail as well as investment possibilities presented. These serve as illustrative examples of projects with technological potential based on the Blockchain.

In particular, they do not constitute (individual) investment advice, nor tax, legal or economic advice. Furthermore, the information provided and passed on is not an offer or advertisement to buy or sell financial products of any kind. Descriptions and details of presented projects refer to direct and freely accessible information from various media (especially, but not exclusively, from the Internet). VIRA Ventures LLC does not assume any responsibility for the correctness of the data (in particular regarding prices, volumes, quantitative facts about projects and the like). All assessments of VIRA Ventures LLC are marked as such and serve exclusively the context classification in the sense of a pure knowledge and news transfer. Estimates and opinions of VIRA Ventures LLC on the market are based on researched and analyzed information that is publicly available. All comments are made to the best of VIRA Ventures LLC's knowledge and belief, but should at no time be understood as a call to action of any kind. They are purely for the purpose of conveying knowledge and information, and we may be mistaken in the assumptions made and statements made about the future.

Furthermore, the information listed and mentioned does not constitute a recommendation or invitation to conclude contracts for financial services (e.g. asset management) or to conclude other contracts (e.g. custody agreement). In particular, this information is no substitute for appropriate investor and product-related advice from a specialist.

In the sense of a comprehensive notice, VIRA Ventures LLC would like to finally point out that the acquisition of an asset investment is associated with risks. Asset investments (especially in the field of digital value investments) can be subject to significant fluctuations in value (volatility). Especially in the case of investments with high volatility, fluctuations in value may be pronounced. The value of an investment may therefore fall abruptly and to a considerable extent. There is therefore a risk that you may not get back the full amount you invested, or that you may lose your invested assets completely (total loss). Past performance is not a measure of future performance and therefore does not guarantee future profits. Insofar as the information is based on forecasts, estimates and assumptions about the future economic development of the financial instruments and investments, it cannot be ruled out that the forecasts, estimates and assumptions made may be incorrect or incomplete. In addition, the further in the future the forecast event or result lies, the more uncertain the forecast.

This theses should not be construed as an offer to sell or the solicitation of an offer to buy any security or commodity. VIRA Ventures LLC does not guarantee the sequence, accuracy, completeness, or timeliness of any information provided in this theses. Author(s) may hold cryptocurrencies or other assets named in this report.

