

THE METAVERSE OVERVIEW

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We're happy to share with you this thorough, detailed, and informative report on where the metaverse is today and where it's going in the future.

In this report, you'll read about how metaverse development is quickly gaining traction, with companies raising nearly \$10.4 billion in 2021 alone. This is a rapidly growing industry, with the XR and VR technology market predicted to develop to 4-6 billion dollars by 2022. The metaverse offers vast potential for businesses and consumers alike, with applications in areas such as e-commerce, fashion, gaming, education, and more. With the market expected to snowball, companies would be wise to explore the metaverse and its potential.

The metaverse offers a lot of potential for businesses and consumers alike. It provides a new way to interact with people and companies, and it has the potential to revolutionize many industries. Businesses looking to stay ahead of the curve should explore the metaverse and its potential.

We hope you find this report not only informative but helpful as a kind of field guide to understanding some essential facts about Web3 and the metaverse.

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VADIM KREKOTIN

Founding Partner at
Cryptomeria Capital



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KEY TAKEAWAYS

- The Metaverse will become a way of life in the future, but for now, it can be and is being used for business, entertainment (i.e. sports and games), and fashion.
- Those who plan to use the metaverse extensively should consider that this phenomenon still needs to be studied in more depth so that corporations can understand how to use this technology most rationally, studying the cost of development and research, to find their link in this industry.
- Already, big tech companies, including Meta, Microsoft, Nvidia, Apple and Alphabet, for example, have joined in shaping VR spaces and investing in meta startups.
- Companies related to the metaverse (tagged under gaming, online games, virtual worlds, and augmented reality) have raised nearly \$10.4 billion in 2021 year across 612 deals¹. And now more than 120 billion have already been invested in the metaverse industry in 2022.
- XR and VR technology industry in the period from 2022 to 2030 will grow to 4-6 billion dollars. The main areas of application will be e-commerce, the fashion industry, holding events and events, gaming, education, art, and tourism.
- The metaverse in fashion market share is expected to increase to USD 6.61 billion from 2021 to 2026, and the market's growth momentum will accelerate at a CAGR of 36.47%².
- By 2030, it is likely that more than 50% of events can be held in the metaverse. For more than 80% of stores, an alternative of virtual shopping may appear. Very similar statistics are predicted for tourism and education.
- 41% of the Metaverse market growth will be driven by the US and Canada, which are key markets for the metaverse real estate market in North America.
- To remove the existing barriers to VR and XR, including ensuring the systematic study and production of equipment, development, and support, we must strive to simplify the integration of existing projects and hope for the widespread adoption of the 5G network in the world.



INTRO

These days, the concept of the metaverse is just beginning. Despite the fact that many have already become more or less accustomed to the possibility of the existence of a parallel virtual universe, we still cannot realistically assess even a tenth of the prospects of these technologies.

If only 5-10 years ago, the metaverse was a scientific fantasy, now we can observe the first sprouts of a future that is not limited by the physical and social space.

Today a lot business meetings and community gatherings are held, exhibitions, presentations and concerts are held, gaming tournaments are organized and new professional skills are taught, such as surgery or fighter jet control, on many metaverse platforms. This is already a reality, but far from the end.

To know better this segment of the metaverse market, you can find here some points:

- the concept and perspective of the metaverse, what new it brings to our already developed Internet world;
- problems faced with the introduction of new technological solutions and what difficulties need to be overcome to introduce XR and VR technologies;
- what projects and working cases already exist, their indicators and specifics;
- which global brands are trying to be the first to master new meta-spaces and how they do it;
- about investments in metavers and the largest deals;
- how can the metaverse affect sports, games and fashion industries;
- what you need to consider when creating your meta-business and which niche has the greatest prospects in the next 8 years.

The purpose of this report is to analyze the attitude of large institutions toward the rapidly emerging Metaverse phenomenon. Our team's own analysis and research are combined with other highly trusted researchers such as J.P. Morgan, Boston Consulting Group (BCG), KPMG, McKinsey & Company, PWC, and others, to capture and evaluate consensus on such revolutionary technology, its features, and "micro-universe" as a meta-reality, and to put together a consolidated overview.

GENERAL CONCEPT OF METAVERSE AND ITS PERSPECTIVES

The metaverse, a term first used by Neil Stevenson in the 1992 science fiction novel Snow Crash, is a mixture of digital and physical existence, and it is only nearly 30 years later that this definition is slowly becoming a reality. We are still at the beginning of the journey, as computing power, headsets, software protocols, and networking capabilities are not yet ready to support a truly immersive and shared metaverse.

"Some now refer to the metaverse as the new Internet, others as a democratized virtual society, still others as a convergence of virtual and physical realities, persistent virtual spaces, or a digital twin of our world" - "Into the Metaverse" by Wunderman Thompson Intelligence.

In recent years, Metaverses have grown strongly in terms of popularity, in part due to the Coronavirus epidemic, which provoked a new boom in the synergy of humanity and the Internet.

But the concept of the metaverse is not so new, in many ways it is just linear progress of already developed solutions. Online, multiplayer, role-playing worlds like **The Sims** or **Second Life** have been around for almost 20 years, with millions of players spending 20 hours a week playing **Minecraft**, **World of Warcraft**, and **Fortnite**.



		WEB 2.0	WEB 3.0
	Example virtual worlds	<ul style="list-style-type: none"> • Second Life • Roblox • Fortnite • World of Warcraft 	<ul style="list-style-type: none"> • Decentraland • The Sandbox • Somnium Space • Cryptovoxels
PLATFORM CHARACTERISTICS	Organizational structure	<ul style="list-style-type: none"> • Centrally owned • Decisions are based on adding shareholder value 	<ul style="list-style-type: none"> • Community governed, generally through a foundation decentralized autonomous organization (DAO) • Native tokens are issued and enable participation in governance • Decisions are based on user consensus
	Data storage	<ul style="list-style-type: none"> • Centralized 	<ul style="list-style-type: none"> • Decentralized (game assets)
	Platform format	<ul style="list-style-type: none"> • PC/console • Virtual reality (VR)/augmented reality (AR) • hardware • Mobile/app 	<ul style="list-style-type: none"> • PC • Virtual reality (VR)/augmented reality (AR) hardware • Mobile/app coming soon
	Payments infrastructure	<ul style="list-style-type: none"> • Traditional payments (e.g., credit/debit card) 	<ul style="list-style-type: none"> • Crypto wallets
	Digital assets ownership	<ul style="list-style-type: none"> • Leased within platform where purchased 	<ul style="list-style-type: none"> • Owned through non-fungible tokens (NFT)
	Digital assets portability	<ul style="list-style-type: none"> • Locked within platform 	<ul style="list-style-type: none"> • Transferable
	Content creators	<ul style="list-style-type: none"> • Game studios and/or developers 	<ul style="list-style-type: none"> • Community • Game studios and/or developers
USER INTERACTION	Activities	<ul style="list-style-type: none"> • Socialization • Multi-player games • Game streaming • Competitive games (e.g., esports) 	<ul style="list-style-type: none"> • Play-to-earn games • Experiences • Same activities as Web 2.0, see box on left
	Identity	<ul style="list-style-type: none"> • In-platform avatar 	<ul style="list-style-type: none"> • Self-sovereign and interoperable identity • Anonymous private-key-based identities
	Payments	<ul style="list-style-type: none"> • In-platform virtual currency (e.g., Robux for Roblox) 	<ul style="list-style-type: none"> • Cryptocurrencies and tokens
COMMERCIALS	Content revenues	<ul style="list-style-type: none"> • Platform or app store earns 30% of every game purchased; 70% goes to developer (example model) 	<ul style="list-style-type: none"> • Peer-to-peer; developers (content creators) directly earn revenue from sales • Users/gamers can earn through play or participation in platform governance • Royalties on secondary trades of NFTs to creators

Figure 1: Web 2.0 versus Web 3.0 approach to the metaverse. Source: "Opportunities in the metaverse" JP Morgan

Metaverses can be viewed as on a continuum that spans a spectrum of digital augmented worlds, realities, and business models. It applies to all aspects of the business:

- from the consumer to the employee and within the entire enterprise;
- from reality to virtuality and vice versa;
- from 2D to;
- from the cloud and artificial intelligence to augmented reality.

This also includes blockchain technologies, digital twins, edge technologies, and much more.

It is important now to seize the opportunity to ensure that the metaverse evolves with responsibility in mind: from data ownership, inclusiveness, and diversity, sustainability, to personal security.

Soon people will actively live in virtual worlds and move between them daily.

The Metaverse continuum will change many things:

- How do businesses interact with customers
- How work is done
- What products and services do companies offer
- How do they produce and distribute them
- How they manage their organizations.

There are three main levels (layers) that make up the programmable world: connected, experimental and material.

The programmable world's pluggable, experimental, and physical levels will enable new ways to augment, customize, automate, modify, and otherwise "program" our physical environment - and they will create an entirely new competitive landscape.

Digital technologies will leave their mark on the physical world, changing what we can do and how we live in it, and the companies that

integrate these technologies into the environments of their employees and customers will be the ones who will shape the next generation of life. in this world.

One can imagine 4 main meanings for the metaverses, which are referred to as "the converged world of virtual and real": imitation of various aspects of the real world in the virtual, the main aspect of which is the feelings that a person experiences during interaction. The second is the inclusion of real-world elements such as clothes, food, dishes, weather, objects, etc. The third is direct interaction between the worlds. And the last - most important - barrier-free exchange of information in real-time using technologies and brain-computer interfaces that wait for electrical and biogenic signals to the human brain.

- 1. structure,**
- 2. objects,**
- 3. interaction,**
- 4. brain-computer interfaces.**

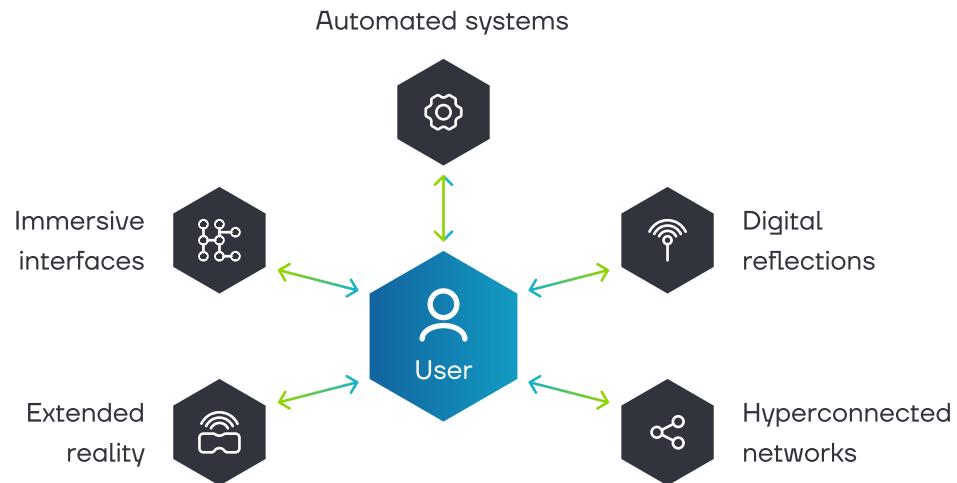
Characteristics of the Metaverse: realistic experience, world structure (imitation of the real world), the ability to create user-generated content - new opportunities for users in creativity, potential economic value through digital assets, the concept of the metaverse as a parallel world - the weakening of the "central privilege in the real world, the governance structure - who will own the weight in the virtual world and receive economic benefits.

Much of the value of the Metaverse may ultimately lie in business rather than consumer applications, such as virtual meetings and training, new product design capabilities, or the ability to let customers experience a virtual home or car before buying a real one.

In addition, VR realities in various technical solutions are used to teach complex professions and professional skills, from surgery to piloting a military fighter.

Using state-of-the-art immersive imaging systems, forensic analysis of a crime scene provides more detailed data. Solutions are already being developed that allow you to go to a crime scene, scan it in 3D, and then explore and find new data thanks to detailed visualization. Such decisions can be used as evidence of a fixed space where a crime was committed at a certain point in time.

Today: The seeds of the metaverse exist as isolated experiences, where assets and value are not interoperable or interchangeable.



Future: Landscape of virtual spaces with transferable identities and assets enabled by blockchains that are interoperable or interchangeable.

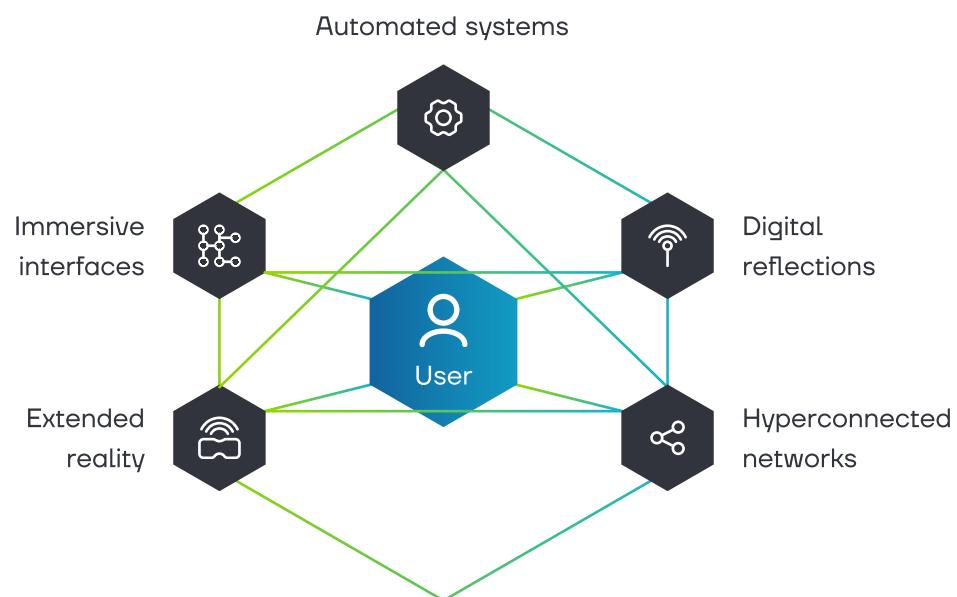


Figure 2. Source: “Demystifying the metaverse” PWC

IF THE METAVERSE IS SUCH A COOL TOOL, THEN WHY HASN'T IT BEEN IMPLEMENTED YET AND WHERE DO THESE PITFALLS LIE?

Still missing is the interoperability of the metaverse: a digital world where companies and their customers can seamlessly switch between the multiple capabilities (i.e., networks and applications) offered by different vendors. This connection will require a new architecture for the Internet, often referred to as Web 3.0, which Internet innovators and investors are currently working on. This phenomenon should be a decentralized structure with an infinite number of interacting platforms.

The metaverse, like any complex system, has its structure or, more precisely, "concepts". Here are 6 concepts for the structure of the metaverse by PWC⁵:

ECONOMIC

Blockchain-based digital currencies, assets, and exchanges will support the exchange of value in the metaverse. DAOs and their voluntarily agreed rules enforced by smart contracts running on the blockchain and beyond will play an important role.

INTEROPERABLE

"A true metaverse requires seamless interaction between users and platforms based on Web 3.0 and standards yet to be defined. Competitive advantage can shift to those companies that offer (through hardware or software) reliable ways for users to enter the metaverse."

GOVERNANCE

The Metaverse will need rules for how it interacts with users and how it evolves. In addition, enforcement mechanisms will be required: tax collection, data management, and regulatory compliance. Security will be paramount as the metaverse could offer new ways for attackers to attack users' data and assets.

IDENTITY

The new decentralized and interconnected digital world will require trusted, interoperable digital identities for people, assets, and organizations. "Digital identity companies can now both help set the standards of the metaverse and offer needed services."

EXPERIENCE

Meta-reality will offer unique experiences based on new and rebuilt beliefs, ideals, and tastes. Companies that build trusted metaverses and protect privacy rights can win consumer loyalty, and trend-following metaverses can be well positioned to predict consumer preferences and behavior.

PERSISTENCE

The correct and expected digital world of the future must reflect in real time the changes made to it by all participants in all places, at any time.





META PROJECTS AND THEIR USE CASES

Already, big tech companies, including **Meta**, **Microsoft**, **Nvidia**, **Apple** and **Alphabet**, for example, have joined in shaping VR spaces and investing in meta startups.

This is evidenced by the rebranding of Facebook into Meta⁶, Microsoft's acquisition of Activision Blizzard, the emergence of Nvidia Omniverse⁷, the announcement of the release of the Sony PlayStation VR2 headset later this year⁸, and statements from Apple about the interest in promoting augmented reality technologies.

Augmented reality (AR) and virtual reality (VR) helmets have become cheaper and more powerful than before and provide a truly exciting user experience. But with the advent of the blockchain, new concepts were added – cryptocurrency and NFT, which changed the perception of virtual reality.

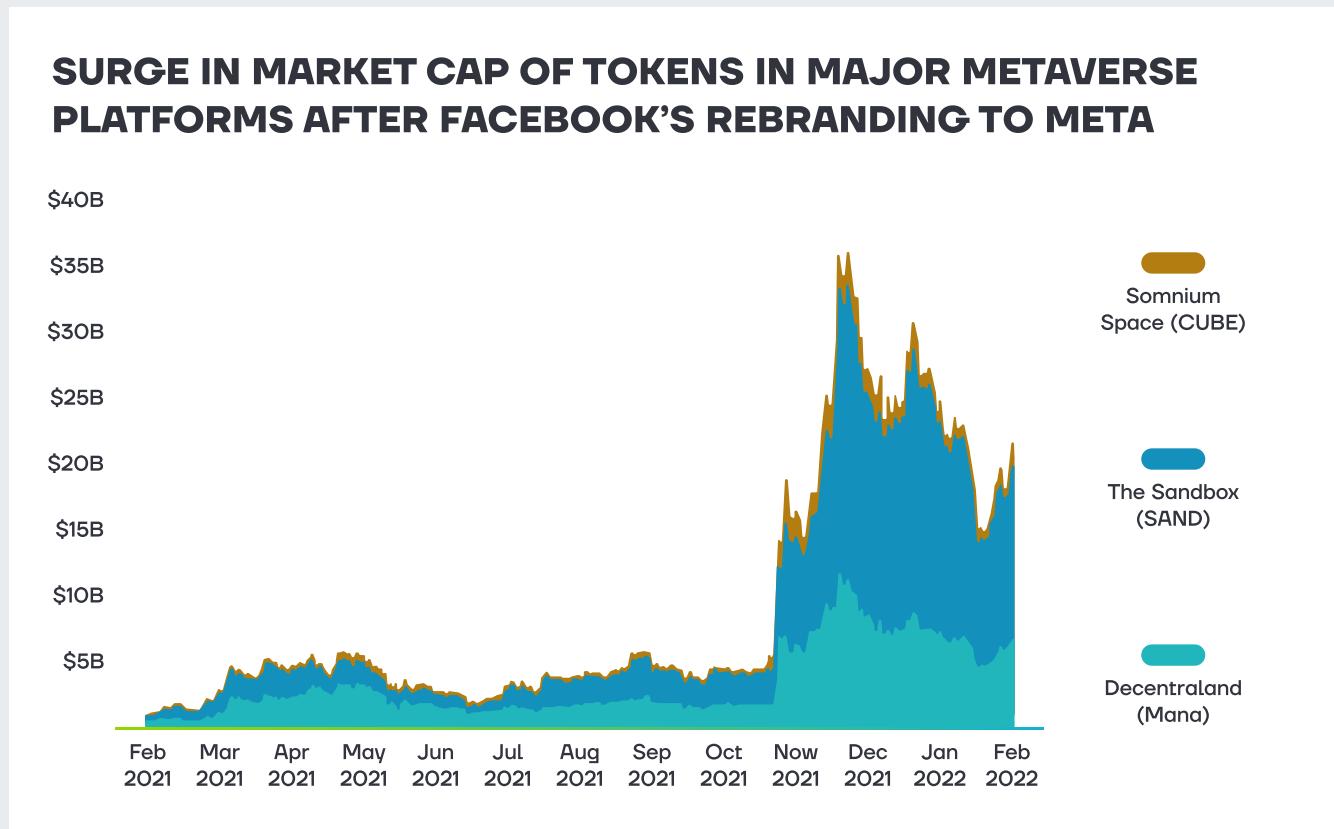


Figure 3: Surge in market cap of tokens in major metaverse platforms after Facebook's rebranding to Meta. Source: "Opportunities in the metaverse" JP Morgan

Decentraland, the earliest player among the metaverses, was launched in 2017 and is an immersive and engaging 3D virtual world. Users can buy plots of land and create their own buildings or facilities that others can use. In Decentraland, some lots are specifically placed in districts for the use of the community. Decentraland offers a total of 90,601 16m x 16m lots, of which over 6,000 lots have already been sold. As of April 2022, among the growing number of Decentraland players of 300,000 people, 18,000 daily visit the platform.



The Sandbox started in 2011 as a blockchain-based virtual world and evolved into a 3D gaming platform in 2017. One of the main goals of Sandbox is to give artists, creators and players in the metaverse the ability to develop the platform according to their imagination.

Sandbox has 500,000 unique wallets and a daily user base of around 10,000 players. About 10% of the land in The Sandbox is dedicated to use in special meta events. Sandbox offers nearly twice as many lots at 166,464, and they are also larger at 96m x 96m of digital space.

Decentraland and The Sandbox use in-game currencies to buy and sell assets. Both tokens are created on the ERC-20 standard in the Ethereum blockchain and also. Both platforms run on Ethereum ERC-721 NFTs.

Otherside. In mid-March 2022, parent company BAYC released a teaser for this metaverse⁹. It featured several famous NFT collections such as CryptoPunks, CoolCats and World of Women. Earlier this December, Yuga Labs also announced a partnership with Animoca Brands¹⁰. Land in the new metaverse is expected to cost 305 ApeCoin (APE) and everyone who completes the KYC procedure will be able to receive 2 land plots. APE is an ERC-20 token in the BAYC ecosystem.



Soulbound (SBTs) complements the existing capabilities offered by NFT and ERC-20 by combining the characteristics of non-interchangeability. This is a reputation history that stores the background of the owner and can serve as a primary personal identifier.

Use cases for SBT include selling tickets to events, issuing certificates of education, confirming attendance at conferences, or even verifying resumes. Users can use SBT to showcase their borrowing history and lenders can check creditworthiness.

For fresh produce, **RTFKT** is a virtual footwear brand that was recently acquired by Nike. Solutions like this are starting to build bridges between digital and physical goods (wearers get physical shoes that match their NFTs). In February 2021, NFT marketplace RTFKT sold 600 pairs of digital sneakers in just seven minutes, generating \$3.1 million in revenue¹¹.



The same services as in the physical world are already beginning to appear in the virtual real estate market, including loans, mortgages, and leases.

Virtual concerts can be more profitable and more comfortable for attendees than physical ones when it comes to space and queue barriers. Recently, a major concert in **Fortnite** was watched by 45 million people. The concert raised about **\$20 millions**, with the sale of in-game goods.

It will be interesting to see how the new marketing and advertising market develops as one of the largest segments of the meta-economy.

This paves the way for training designers and developers specializing in 3D modeling, avatars, wearables, real architecture, and interiors. Metaverse also serves to organize and attend concerts, parties, art shows, social gatherings, sports events, excursions and travel, etc.

- Metaverse creates the opportunity to implement truly unique cases, such as products such as Biba Ventures, which was launched in 2010 to introduce AR to encourage children to prefer physical games in the real world on playgrounds. It now has nearly 5,000 playgrounds deployed around the world and was voted one of TIME magazine's 100 Inventions of the Year in 2019¹².
- Also, the metaverses have opened up a new dimension for global brands, as evidenced by the Adidas and Bored Ape Yacht Club (BAYC) collaborations¹³, the Audi concern that has integrated its cars into virtual reality using automotive technology holoride¹⁴, or McDonald's patents for a virtual brand and meta-fast food¹⁵.

HERE ARE SOME MORE EXAMPLES:



Louis Vuitton created a very non-standard project in the format of a game, the purpose of which was to tell about the history of the fashion house and its creation.

They used NFT in **Louis: The Game** to celebrate the fashion house's 200th anniversary. In the game itself, 30 unique tokens from the fashion house could be found, 10 of which were created by a real digital art star - Beeple, who sold one piece for a staggering **\$69.3 million** - Highsnobiety reported¹⁶

Asics was the first sportswear brand to enter the NFT market, which allowed the brand to keep abreast of trends that interest its consumers. Asics has released its first collection¹⁷.

It was an experiment for the brand, as well as for the leisure industry in general, that helped bridge the gap between physical and digital for brands. The sportswear brand is developing a permanent artist program, and NFT auction proceeds will help fund digital artists - Asics reported to





In June 2021, a digital-only **Gucci bag** was sold on **Roblox** for over **\$4,000¹⁸**, more than the cost of a physical bag - The Fashion Law reported

On **Aglet**, a mobile shopping game where users can buy rare sneakers from brands like **Chanel, Nike** and **Balenciaga**, one user spent **\$15,000** on virtual shoes, according to Fast Company - Fast Company reported¹⁹



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What is the role of Web3 in the metaverse adoption?



ANDREA CHANG
Partner at NGC
Ventures

I believe we are witnessing the merge of Web2 and Web3 for metaverse companies. A metaverse platform relies on different tech components and experiences accumulated in the Web2 era, but Web3 can bring the economy and value chain to a fairer future.

Metaverse industry may be the opportunity that Web3 was finding for mass adoption as it can involve lots of consumer-facing businesses like retail, fitness, and gaming. I believe more capital and entrepreneurs will discover business models that are direct-to-consumer or direct-to-avatar through metaverse platforms.



As a crypto native investor in the space, I believe metaverse is a great arena in taking the core value of Web3 to more users and new business models. The fund supports great teams with long-term vision and innovation. Our mission is to be the bridge in guiding more entrepreneurs creating value in the Web3 world and help great teams finding opportunities in creating value in the wave of Web3 metaverse.

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NGC Ventures is a crypto native venture fund established in 2018 as one of the first institutional investors in crypto. In 2021, we launched one of the first Web3 metaverse funds focusing on NFT infrastructure, gamefi, and metaverse platforms.

Among portfolio:



In January 2021, luxury fashion house **Auroboros** released a digital-only couture collection on Drest, a modeling app and fashion game - **WWD** reported²⁰





In June 2021, a digital-only **Gucci bag** was sold on **Roblox** for over **\$4,000¹⁸**, more than the cost of a physical bag - The Fashion Law reported

Tribute, a brand specializing in “**non-contact cyber fashion**”, launched limited edition digital clothing and custom orders in 2020 - Tribute reported



Ralph Lauren released a 50-piece digital clothing collection in August 2021, available for purchase on the **Zepeto** social media app - Ralph Lauren reported²¹



Gucci and **The North Face** released a collaborative collection of **Pokémon Go** avatars in January 2021 - Pokémon Go Live reported²²



American Eagle announced **Bitmoji's** digital avatar clothing collection in July 2021²³



Luxury models of their cars in **Tencent's** Game for Peace - China's mobile version of **PlayerUnknown's Battlegrounds** - between 2020 and 2021 - Wunderman Thompson reported²⁴

EVOLUTION OF THE METAVERSE BY EVERYREALM

As new metaverses are developed, we are paying special attention to ones that cater to content creators via tools and grant funding. As with major titles in Web 2.0 like Roblox and Minecraft, players spend most of their time exploring, socializing, and gaming inside creations made by other players or studios. Meanwhile, a new trend towards interoperability could accelerate cross pollination of content across virtual worlds. An ecosystem of compatible metaverses is a more compelling pitch to users, though, we are years away from this materializing. For now, we expect virtual worlds with beginner level builder tools—such as drag and drop builders seen in Voxels and Portals—will continue to draw in casual creators, while Decentraland and Mona will attract more seasoned artists and companies with a path to profit.

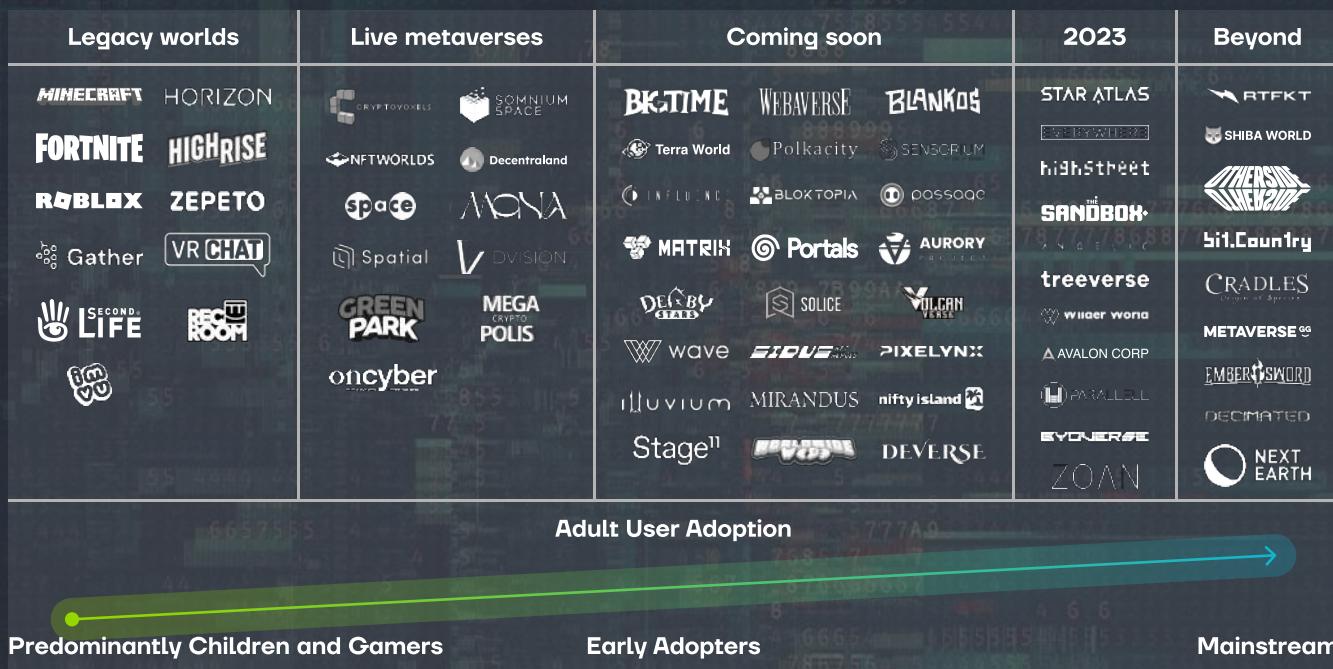


Figure 4: The Metaverse is just getting started. Source: Everyrealm Inc.

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The only way the metaverse becomes interesting is if there are things to do and people to see and places to go when you get there.

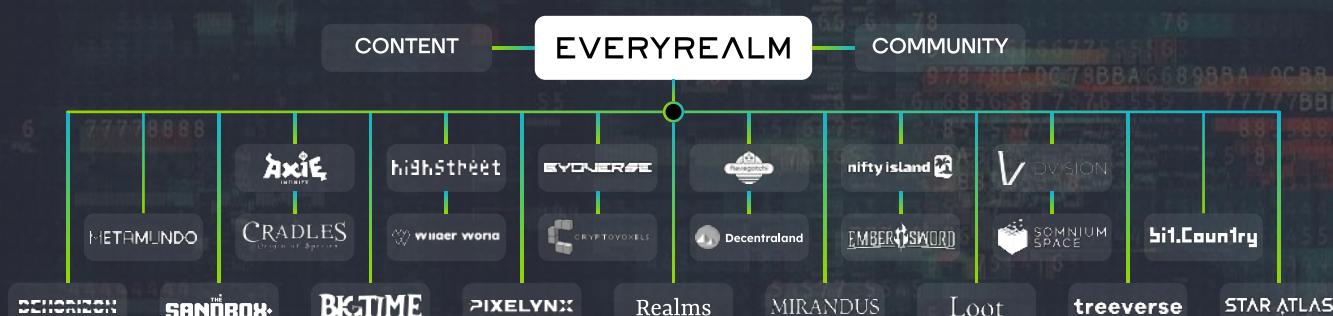
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JANINE YORIO

CEO at Everyrealm Inc

Everyrealm is the gateway to the metaverse and one of the most active investors in and developers of the metaverse real estate ecosystem.



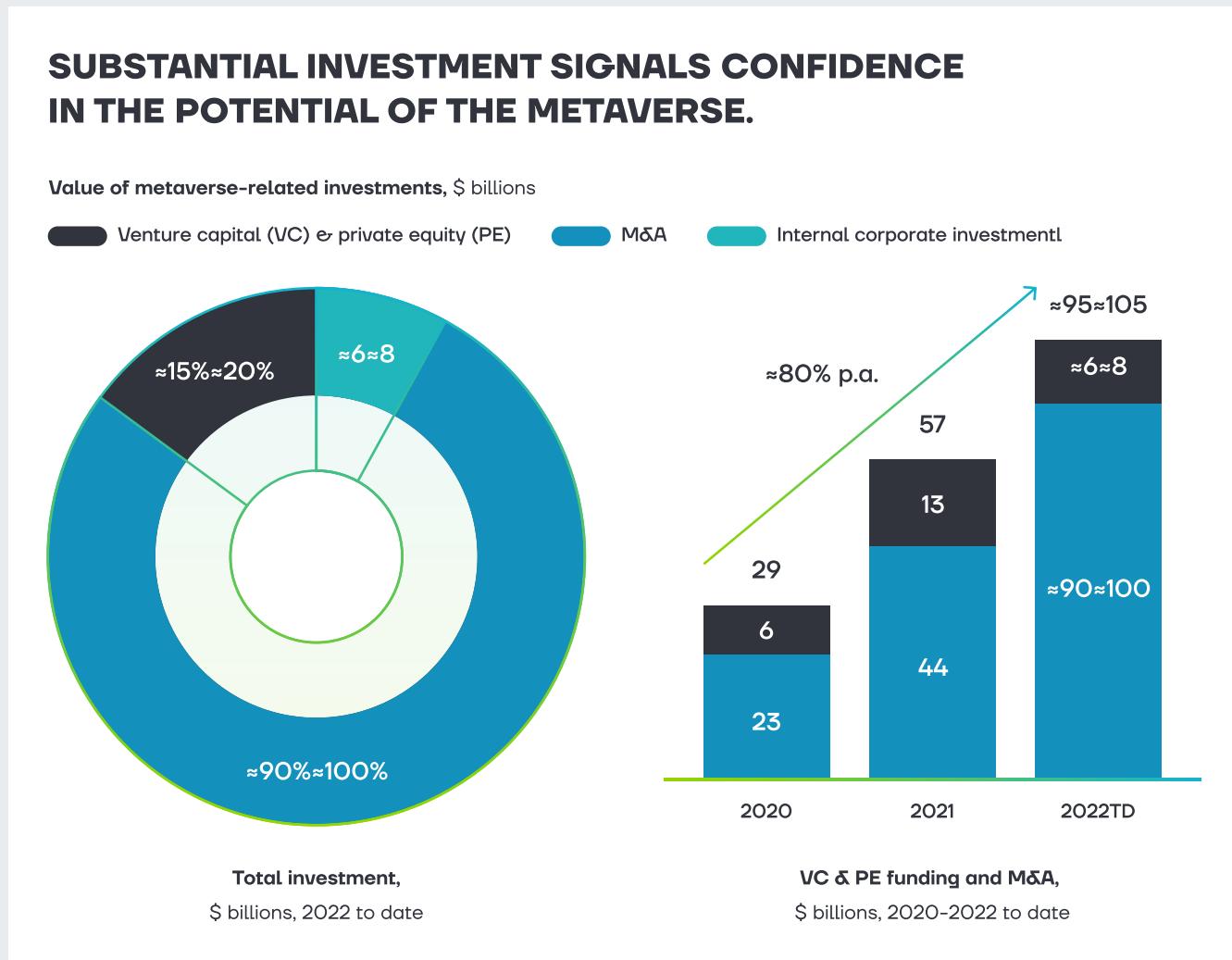


Figure 5: Internal corporate investment in 2022 derived for top 30 companies investing in the metaverse based on publicly announced investment amounts. Source: Crunchbase (Jan 2020–May 2022)

Companies related to the metaverse (tagged under gaming, online games, virtual worlds, and augmented reality) have raised nearly \$10.4 billion in 2021 year across 612 deals²⁵.

Funding into four big categories:

- **Gaming:** about \$7.5 billion (382 rounds)
- **Online Games:** about \$2.5 billion (110 rounds)
- **Augmented Reality:** about \$2.1 billion (176 rounds)
- **Virtual world:** \$62.8 million (9 rounds)

In addition to venture capital funds, IT giants also invest in the meta-industry.

1. In January 2022, Microsoft announced the acquired major video game developer, Activision Blizzard for \$70 billion in order to develop the Microsoft Mesh meta-industry²⁶.
2. Google announced that it had invested a solid \$39.5 million in a private equity fund for all meta-universe projects²⁷.

- Unity Software, who develop the Unity engine, acquired Weta Digital (the deal cost more than \$1.6 billion), a VFX tools company that should help further develop RT3D technology, which generates real-time 3D images²⁸.
- Magic Leap, Inc. raised \$500 million funding with a valuation 2 billion²⁹. The investment focused on developing advanced AR solutions. And in general, since Facebook's purchase of Oculus, investment in software development relative to hardware development has been on the rise in the metaverse industry, and in fairly large amounts:

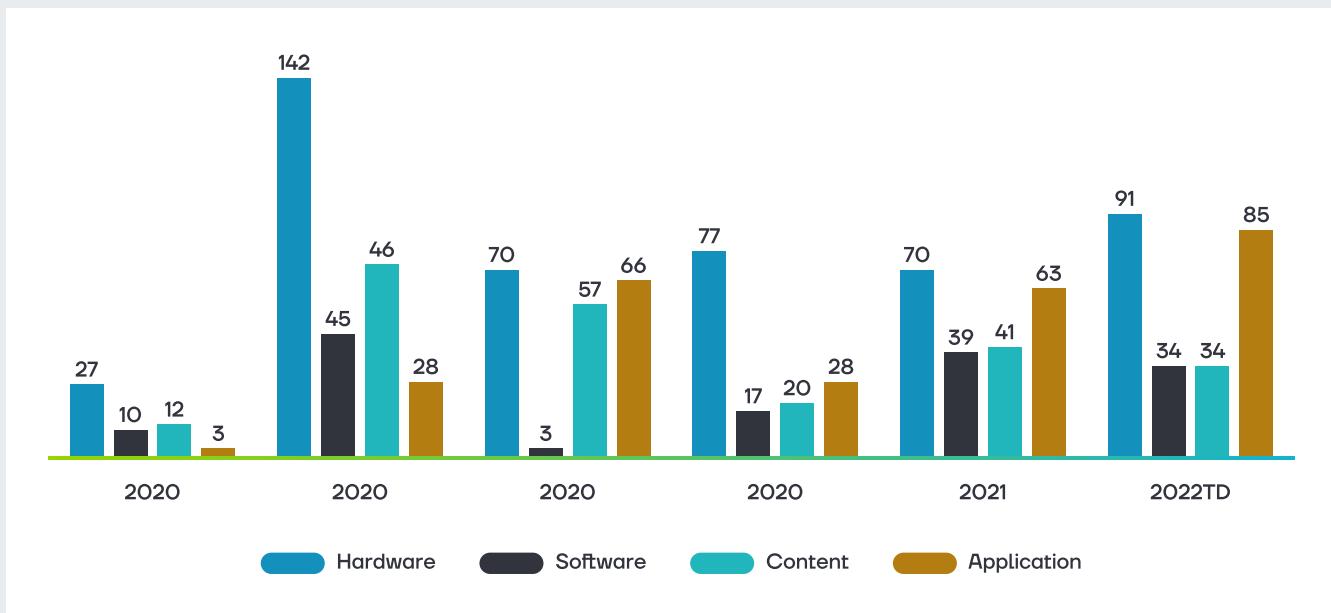


Figure 6: Financing and M&A amount and number of global VR/AR industry chain in each link. Source: IDC; VR Tuoluo; Deloitte Research and analysis.

- Meta has invested a total of \$10 billion to acquire and develop both the hardware and software that will be used to power the Metaverse's virtual reality experience³⁰. The company also plans to invest in AR (augmented reality), another new technology with a promising future.
- According to McKinsey's "Creation in the Metaverse" report, venture capital funds have invested more than \$13 billion in the metaverse industry in 2021. And in 2022, more than 120 billion have already been invested:



Figure 7: Value creation in the metaverse. Source: McKinsey analysis.

- Other major investments include the Thailand-based media holding T&B Media Global, which in October 2021 launched its Translucia Metaverse project³¹, with a first-stage investment of \$283 million for the virtual world.

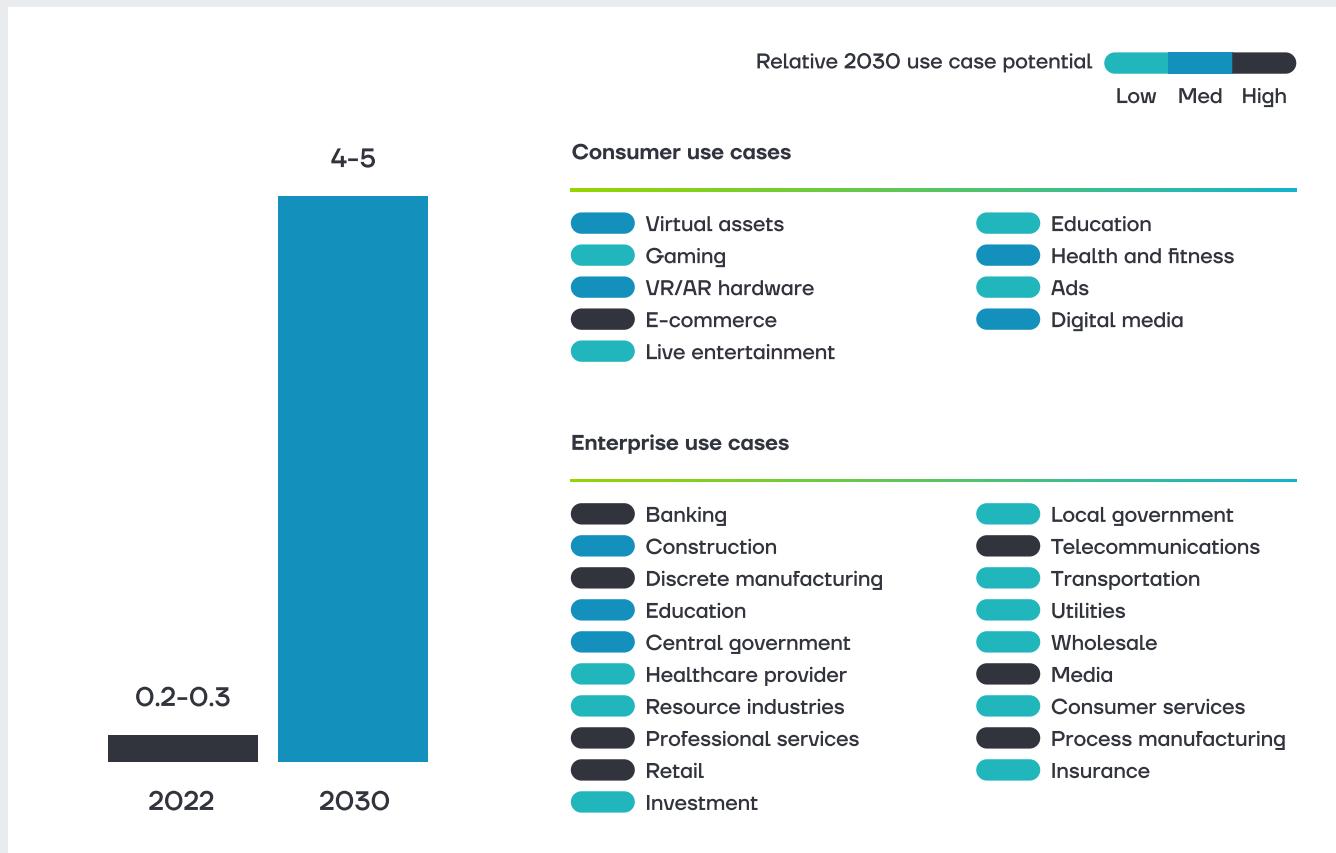


Figure 8: Metaverse impact potential by 2030, \$ trillion. Source: McKinsey analysis.

Regional Analysis of Technavio shows that 41% of the market's growth will originate from North America during the forecast period. US and Canada are the key markets for the metaverse market in real estate in North America.

Market growth in this region will be faster than the growth of the market in South America and MEA. The rising adoption of technologically advanced applications among consumers and a growing number of big brands purchasing virtual lands will facilitate the metaverse real estate market growth in North America over the forecast period.

- Over \$120 billion has been invested in the metaverse space in 2022. The metaverse real estate market, XR and VR technologies share is expected to increase by USD 5.37 billion from 2021 to 2026. However, the growth momentum is likely to decelerate at a CAGR of 61.74%³².

Another example is a Shopify where a million companies use it as their e-commerce platform. And, as virtual shopping becomes more and more of an exciting opportunity in the metaverse, it makes sense that Shopify would want to jump into action early on. The company has a particular focus on augmented reality shopping, which typically involves users trying on clothes or viewing items in their homes virtually before making a purchase.

Many significant investments and fundraises have been made in the metaverse or aspects related to it - these should not be missed:

- If we talk about the most high-profile crypto projects, we cannot ignore the OpenSea NFT trading platform, which raised \$300 million at a \$13.3 billion valuation in a Series-C funding round led by Paradigm and Coatue³³.
- Also notable is tech metaverse company Improbable, which received \$150 million in

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How do you find the current status of metaverse and the future?



ITAI ELIZUR

COO at MarketAcross



If you'd have told me, a few years ago, that someone will spend \$450K to buy a virtual house next to Snoop Dogg's virtual house, I would have thought you lost your marbles. Jokes aside: I'm finding it to be more and more true that, as a business owner, the only way to stay relevant is to adapt.

To be completely honest, I wasn't the first person to buy my ticket for the NFT and Metaverse train. Despite being the main PR firm for Decentraland's launch in 2017, it was conceptually still out of reach for me. Don't even get me started on CryptoKitties, which presented itself as the first big NFT use-case. But now, when we're years past the first few steps, I see how this niche went from being considerably small to be a core pillar in the crypto industry as a whole. With this change, of course, came major players like Facebook which aped in and changed their name to Meta, and big fashion companies like Gucci, endless musicians, celebrities, etc.

NFTs and Metaverse can also bring a lot of value when we consider the growth of the creator economy and what we call KoLs (Key Opinion Leaders), but as a father of three daughters, I'm also a bit afraid of the more apocalyptic scenarios where people don't leave their house, don't communicate in the physical world and lack basic social abilities. With that being said, the Metaverse is definitely here to stay and it will become a bigger part of our daily lives pretty soon. It's less a question of "if" and more a question of how soon.

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MarketAcross is the leading PR & content marketing firm for fintech and blockchain companies. We proudly offer comprehensive marketing strategies, seasoned crypto-native employees, and guaranteed results. Our experience has led us to work with clients such as **BINANCE** **crypto.com** **Polkadot** **SOLANA** and many others. We've worked with few Metaverse clients such as **Decentraland** **Monkey Kingdom** **Decentral Games** **AAG** **BitCountry** **DOGAMi** and many others

a round led by Andreessen Horowitz and SoftBank³⁴.

3. Yuga Labs (creator of the BAYC NFT collection) has raised \$450 million at a \$4 billion valuation³⁵.
4. The Sandbox received \$93 million from SoftBank, and Niantic closed a \$300 million round from Coatue³⁶.

Other not less important investments were made within following cases:

1. Led by Kleiner Perkins and crypto investment giant Pantera Capital, Optic, a startup that uses artificial intelligence (AI) to authenticate and verify NFTs³⁷, introduced their business and raised \$11M in seed round³⁸. Founded in San Francisco in March and developing an

artificial intelligence engine that processes millions of new NFTs daily and compares them to existing collections of NFTs, Optic and its algorithm look for visual similarities, including upside-down images, color changes, or slight distortion or fuzziness in those images. The monitoring tool informs marketplaces, brands, or media companies of potential intellectual property infringements. A tool like Optic Marketplace Moderation is now used by NFT OpenSea, a giant in the world of non-fungible tokens, as part of the company's anti-fraud efforts.

2. E-commerce firm Yuanjing Shengsheng is evaluating the gaming division in the metaverse, and to stay on track in investing in this new structure and opportunity Alibaba has invested has invested nearly \$1.6 million in the



company³⁹, and its primary focus will be software development.

Even government are intend to invest in that growing new digital world:

At the city level, the Seoul government is building a 3.9 billion won metaverse platform to allow citizens to access government services virtually⁴⁰.

South Korean Science and ICT Minister Lim Hyosuk called the metaverse "an unexplored digital continent with uncertain potential," but the government has allocated 223.7 billion won (\$177.1 million) for it⁴⁰.

Another case is connected with Miami and its super innovative mayor: Miami will become the Sister City to Wilder World's first virtual release city Wiambi⁴¹, with the Florida blockchain hotspot set to be a world leader in Web3 interoperability with the first of many partnerships with crypto native projects including Wilder's 5D immersive photorealistic mixed-reality Metaverse.

Also many and many companies totaled huge amount of money through M&A processes, for example:

1. SPAC (US-based special purpose acquisition company), acquired EON Reality, offering virtual-reality solutions for 3D offices, for \$655m⁴².
2. Match Group (the owner of popular dating apps, including Tinder), took over Hyperconnect, a South Korean video messaging and social media company, for \$1.7 billion. "The Match Group later said it was working with Hyperconnect to create a "Single Town," a virtual space where single people can meet."⁴²
3. Wave Optics, a company that makes displays for augmented reality smart glasses, was bought by Snap for \$500 million⁴².
4. TikTok ByteDance acquired Pico Interactive, a company that makes virtual reality headsets, for \$700 million⁴².

Many others M&A processes were held in the industry - this process can be compared with the fusion and separation of cells and bacteria, which further leads to the creation of organized life - organism.

Most of really significant M&As are shown in the graph below:

METAVERSE M&A HAS TOTALLED \$77BN IN THE LAST 18 MONTHS

Metaverse-related mergers and acquisitions since January 2021 (\$m)

Acquirer	Target company	Value (\$)	Description	Date
Microsoft	Activision Blizzard	69bn	Game publisher with a rich content library	Jan-22
Match Group	Hyperconnect	12bn	AR solutions provider for social media	Feb-21
Unity Technologies	Weta Digital	12bn	Visual effects and 3D animations provider	Nov-21
Far Peak Acquisition	Bullish GI	900m	Cryptocurrency financial services provider	Jul-21
ByteDance	Pico Interactive	771m	VR headsets manufacturer	Aug-21
Take-Two Interactive	Zynga	700m	Game publisher With blockchain capability	Jan-22
Arogo Capital*	EON Reality	665m	VR-based 3D meeting software provider	Apr-22
The Gores Group*	Matterport	640m	AR and digital twins solution provider	Feb-21
Snap	Wave Optics	500m	AR smart glasses display maker	May-21
Unity Technologies	Parsec	320m	Remote desktop and streaming provider	Aug-21
Celsius Network	GK8	115m	Digital asset security solutions provider	Nov-21
Intema by MTS A1	VisionLabs	100m	Visual recognition specialist	Dec-21
Dev Clever Holdings	Veative Labs	75	AR and VR learning solutions provider	Apr-21
Smart Eye	iMotions	47m	Behavioural research software provider	Oct-21
Dispersion Holdings	Accru Finance	12	Cryptocurrency financial services provider	Oct-21
NexTech AR	Threedy.ai	10m	AI 3D modelling solutions provider	May-21

*Part of a special purpose acquisition company (SPAC) deal

Figure 9: Virtual worlds, real money: Why big business is investing in the metaverse. Source: TECHMONITOR analysis.

This data allows us to understand that not only the institutionalists are directing investments in the metaverse, but also the pioneers of the crypto industry, whose tools will be used in the creation of the metaverse.

For huge institutionalists on todays markets it is easier to acquire young crypto and non-crypto metaverse-related companies.

“

The Metaverse will become a way of life in the future. But, for now, it can be used for business, entertainment (i.e., sports and games), and fashion. Those who plan to use the metaverse extensively should consider that this phenomenon still needs to be studied in more depth so that corporations can understand how to use this technology most rationally, studying the cost of development and research to find their link in this industry. Already, big tech companies, including Meta, Microsoft, Nvidia, Apple, and Alphabet, for example, have joined in shaping VR spaces and investing in meta startups.

To maintain a place in the metaverse, these companies must keep up with changes and advancements. The metaverse is still in its early developmental stages, meaning there is much room for change and improvement. Nevertheless, the metaverse provides a unique and exciting way to experience the world and connect with others.

”



ALEX MUKHIN

Co-Founder and Managing
Partner at Cryptomeria Capital

One of the biggest investment influence is the “buying meta land”:

- In 2021, virtual earth developer Republic Realm bought land from video game company Atari in The Sandbox metaverse for a record \$4.3 million⁴³.
- The Metaverse Group, the world's first vertically integrated real estate company focused on the metaverse economy, bought land in Decentraland for \$2.43 million to host digital fashion events and sell virtual avatar wear⁴³.
- Toronto-based Tokens.com has invested \$2.5 million in a piece of virtual land in Decentraland⁴⁴.
- Renowned rapper Snoop Dogg launched a land sale on his Snoopverse lot in the Sandbox on December 2, 2021⁴⁵. During this sale on December 3rd, collector P-Ape just purchased a digital piece of land in Snoop Dogg's new virtual world, Snoopverse, for \$450,000 in Ethereum⁴⁶. Earlier in 2022, on February 22, Snoop unleashed The Doggies, a collection of 10,000 voxel avatars playable inside The Sandbox.
- Popular Punjabi singer Daler Mehndi recently bought a piece of land in the metaverse, Balle Balle Land, where he holds concerts and connects with his fans⁴⁷.
- Pooja Entertainment, the production company founded by film producer Vashu Bhagnani, recently announced the acquisition of virtual land in the metaverse, becoming the first Indian production company to do so⁴⁸.
- Professional services giant PwC, or more specifically its Hong Kong wing, has acquired imaginary real estate in The Sandbox, a game in which digital land was previously bought for a fee of \$10,000 or more⁴⁸.
- Hong Kong-based bank HSBC has said it will join the metaverse through a partnership with platform Sandbox⁴⁹. The bank will buy a piece of digital land in the virtual world and focus it on sports, e-sports, and games.
- JP Morgan Onyx's blockchain division has released a brief report on Metaverse⁵⁰, released a brief report stating that from June 2021 to December 2021, land prices increased from an average of \$6,000 to \$12,000. JP Morgan also announced that it has acquired some virtual property in Decentraland to open an Onyx Lounge there⁵¹.
- Gucci bought a piece of land in the Sandbox to expand their Gucci Vault platform related to the metaverses⁵². People and brands will be able to buy and develop virtual real estate. The amount of the transaction is not disclosed.



6 XR TECHNOLOGY AND DIFFICULTIES OF IMPLEMENTATION

This side of the metaverses has been given a lot of attention by Deloitte, who rightly assess that the development of the industry is very dependent on technology. At the moment, everything is in its infancy, and bottlenecks will arise as it develops. At the moment, these include access portability to the virtual world, rules for managing the virtual world, industrial applications of the Metaverse, information security and privacy, and energy supply.

And for all this, a well-built infrastructure is required: metaverses will require the development of an uninterrupted infrastructure for themselves in many aspects:

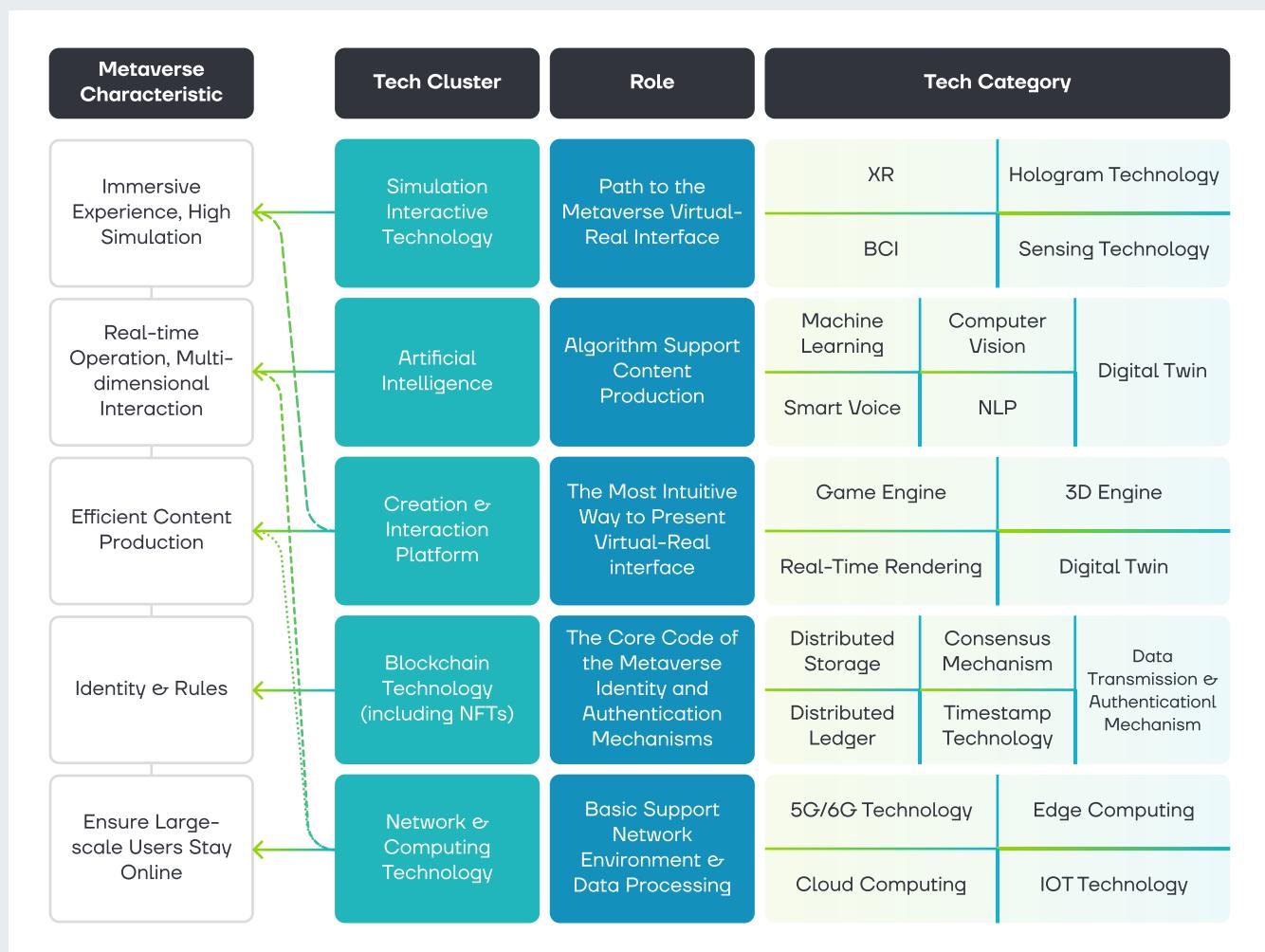


Figure 10: Required technologies for Metaverse scenarios and characteristics. Source: Deloitte analysis.

At present, most technologies are heading in the direction of interaction. Simulated interaction is in active development - technologies for touch, simulation of human thinking (AI), and smell are already available. Developments are also underway to eventually imitate taste and various other sensations. Blockchain is actively developing and allows solving issues related to personalization, identification, and proof of ownership of industries and assets in the metaverse.

“

What are the most significant features of the metaverse?



JUPITER ZHENG

Head of Research at
HashKey Capital

Metaverse will repeat the story of the Internet explosion and become the driver of global growth for the next decade.

Decentralization and open source, where all infrastructure and applications are developed, are, in our opinion, the two most significant features of the Metaverse. Decentralization indicates that the Metaverse's ownership and management are not in the hands of a single entity. Individual rights under the centralized network include data security, asset security will be endangered by powerful institutions, and users' activity will be fully confined within the platform, forcing them to accept any changes or updates. In the Metaverse, users actually own their assets rather than just "renting" them from the network thanks to the technology of blockchain, cryptography, and NFT. Open source indicates that code is freely accessible to developers and creators, and can be modified as needed to create new applications or solutions. Why is the open source spirit so important? Because high quality and open technical standards can greatly stimulate the composability of the Metaverse and lead to exponential innovative solutions.

In terms of UX, we believe that the Metaverse needs an immersive experience to upgrade people's ways of social life. VR/AR and other hardware can be used to make players feel immersive without any delay and have more interesting and diverse experiences than in the real world. The development of content for the Metaverse will benefit significantly from AI technology. Furthermore, platform interoperability in the Metaverse will improve in the future, more asset classes will be connected, new occupations and jobs will emerge, and content creation will be elevated to higher level to cater mass adoption.



HashKey Capital is an institutional asset manager investing exclusively in blockchain technology and digital assets and has managed over US\$1 billion in client assets since inception.

As one of the largest crypto funds based in Asia and known for being Ethereum's earliest corporate investor in the region, our mission is to bridge crypto to the mainstream while connecting Web2 and Web3.

HashKey Capital operates in Hong Kong, Singapore, Japan and the U.S, and has invested in over 200+ projects since 2015.

With profound knowledge of the blockchain ecosystem in the region, the team has built a network connecting entrepreneurs, investors, developers, community participants, and regulators.

Among portfolio:



COINLIST



THE BLOCK

The Internet of Things is also in an active development stage, but still has many years before its climax because now it is necessary to solve the problems associated with the cost and immaturity of technologies, and with security. Also, for a full-fledged metaverse, mobile network development is needed to provide a large and stable data transfer rate. Think Landmark - 6g, which will be implemented sometime in the 2030s and will reduce delays to sub second.

The next aspect is computing power which is currently being used for various simulations in scientific research. This power is growing so much that it will soon be used for metauniverse rendering, financial economics, and smart cities.



Now we can single out an exciting direction in active development in addition to the crypto industry. This is the so-called XR industry, which includes both services and various devices that work with VR – virtual reality, AR – augmented reality, and MR – mixed reality. Now, half the market is occupied by XR devices, but as 5G and 6G networks develop, along with AI, the possibilities of integrations and scenarios for sharing augmented and virtual reality will expand. This will allow real and virtual worlds to intertwine more closely, achieving natural interaction with the machine world.

XR can be compared to the rise of smartphones: since the introduction of the first iPhone, they have become an integral part of our lives. It is aggressive development of computing power pushing XR forward in all its manifestations.

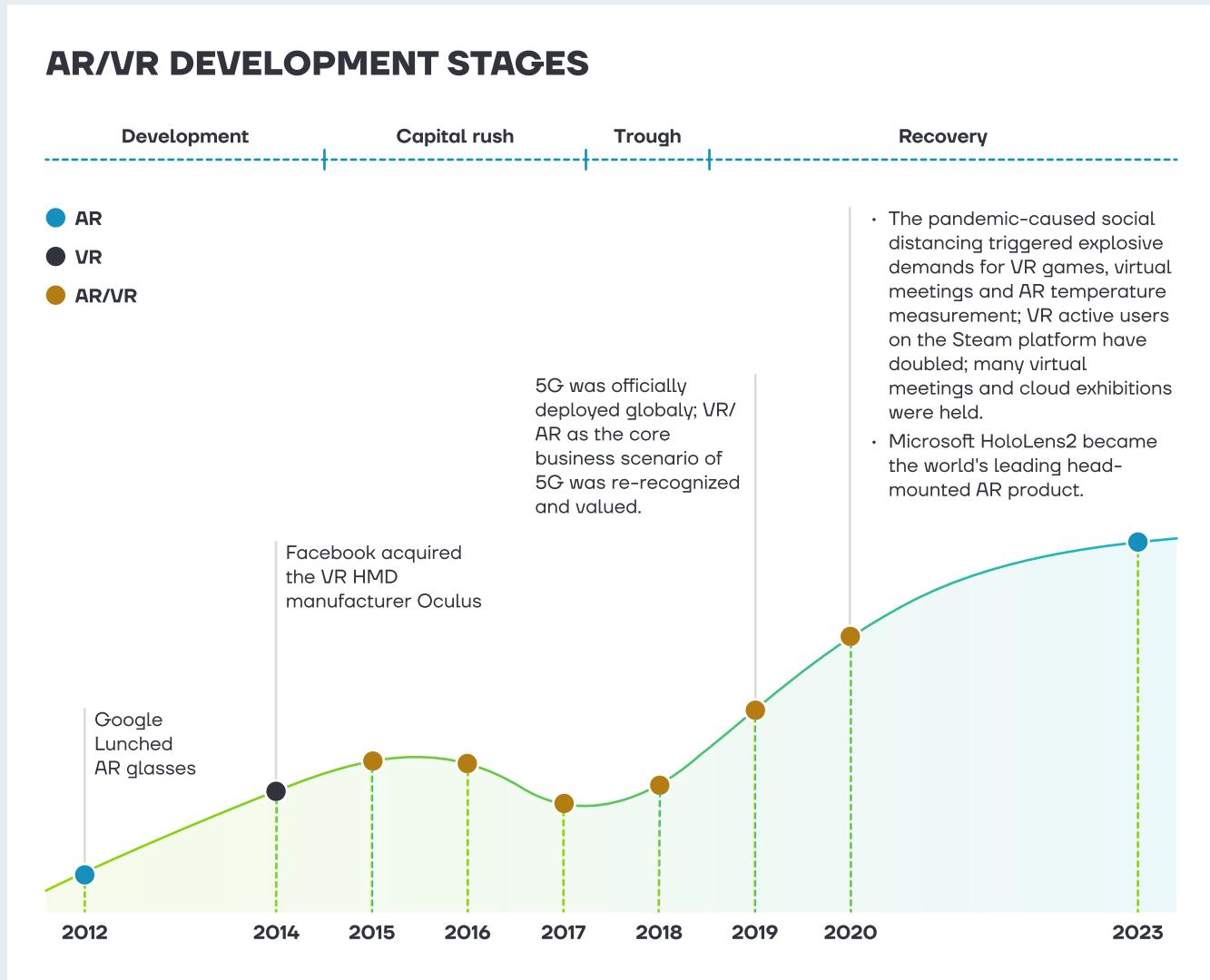


Figure 11: XR Development Stages. Source: Deloitte Research and analysis.

Even though at the moment the XR industry is mainly aimed at the B2C consumer level due to viral content and media, the B2B direction is also developing very actively, attracting a large number of developers and content producers. Since the focus is always on the mass market due to marketing, business decisions may not seem so obvious. Already at the time of 2020, it was noticeable that almost half of the industry is occupied by education, industry, retail and medicine:

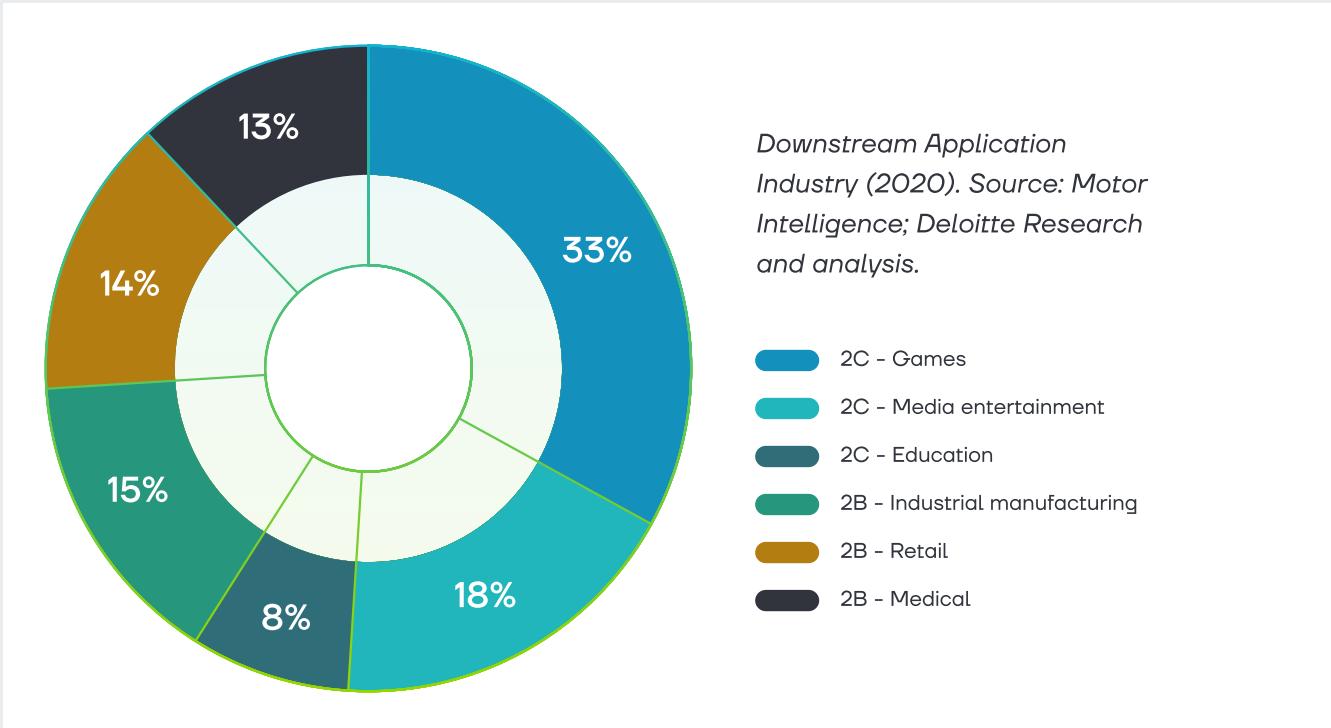


Figure 12: Expense Share of Global XR

Along with the development of software and hardware, there is a need for production facilities, equipment, specialists, and so on. Taken together, this provides multiple opportunities and directions for investment that become clearer over time. It can be noted that in 2018 there was a noticeable decline in the XR industry, which began to recover in 2020.

Next come the companies that supply metaverse solutions: hardware manufacturers, and software developers that maintain infrastructure, and for metaverse, they will work more closely with each other, mergers are possible, etc., to improve the process of developing and building infrastructure. In the diagram below, you can see that most infrastructure solutions for the Metaverse are in their early stages when the most optimal investment window is:

“

Metaverse development is growing at an alarming rate, with many experts believing that by 2030 more than 50% of all events will be held in virtual reality. This is primarily due to technological advancements, such as 5G networks, which will make VR and XR more accessible to the general public. In addition, the metaverse is predicted to hugely impact the retail industry, with more than 80% of stores having an online alternative by 2030. This vast market for metaverse real estate is expected to grow in the coming years.

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IVAN SEMENOV

Managing Partner at Cryptomeria Capital

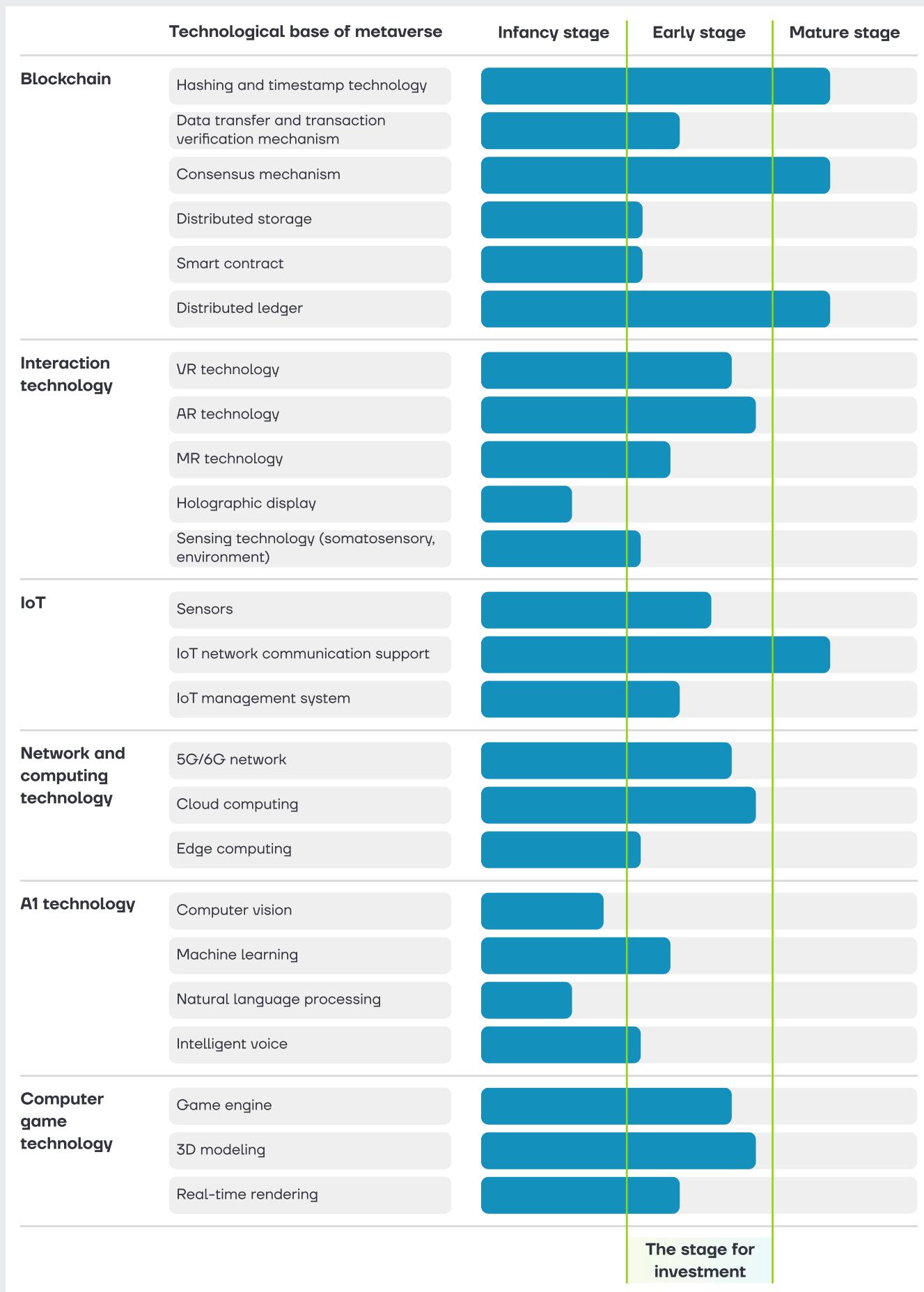


Figure 13: Development Stage of Various Technologies. Source: Gartner; Metaverse Token; Deloitte Research and analysis.

The NFT industry is considered the next important aspect, since they generate value, and involves creators, and traders, who in turn load the platform with payload, generating commissions.

Instead of everything above, it should not be overlooked that the development of the Metaverses is now in its initial stage when the primary infrastructure and services appear. At the same time, it creates new risks:

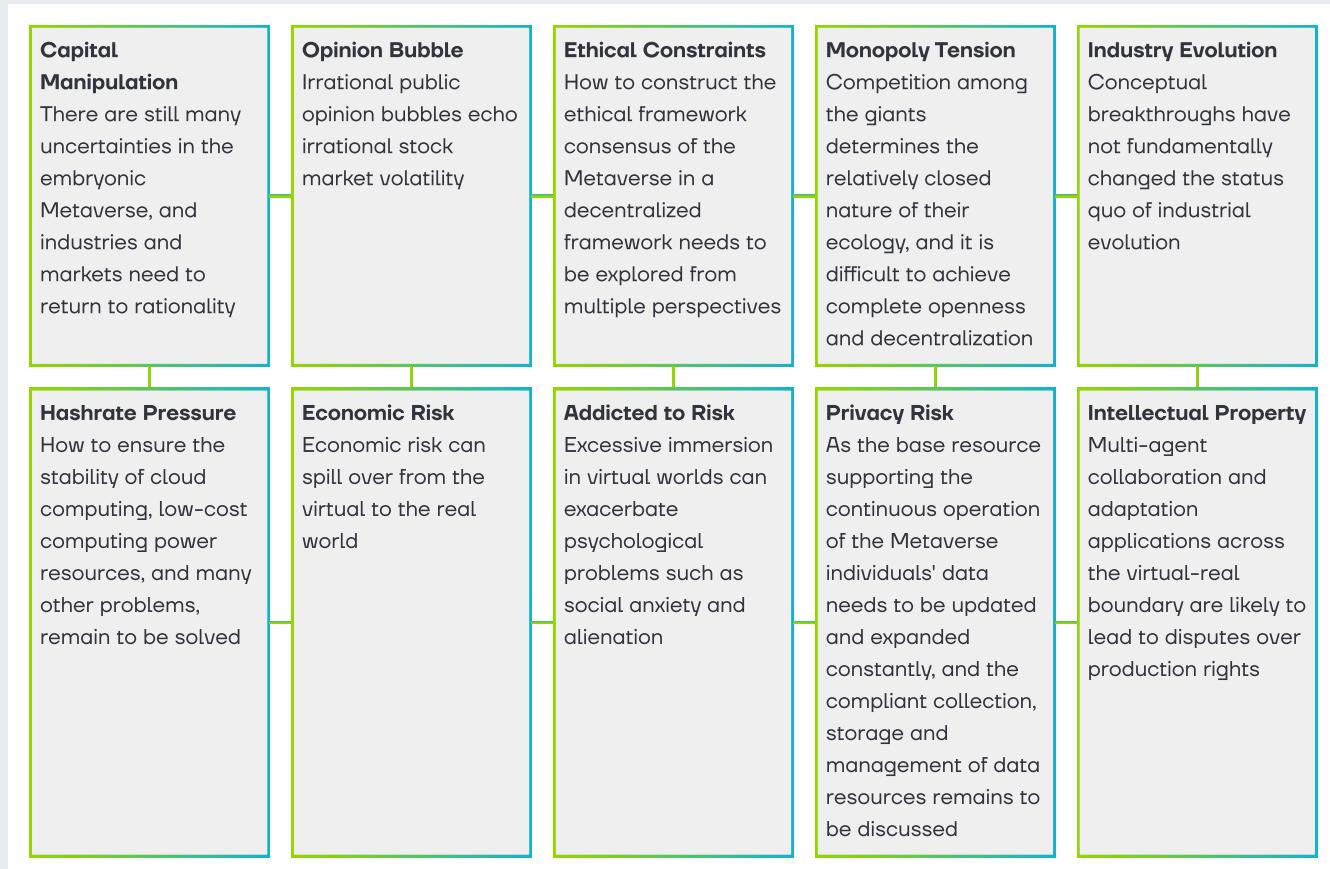


Figure 14: Potential risks. Source: Deloitte analysis.

And therefore, the attitude of government agencies and large corporations to the metauniverses is somewhat cautious. Those who plan to use the metaverse extensively should consider that this phenomenon still needs to be studied in more depth so that corporations can understand how to use this technology most rationally, studying the cost of development and research, to find their link in this industry.

But, on the other hand, pioneers always receive the greatest dividends. Especially because the metaverses with the crypto industry have gained acceptance much faster than the Internet, and the niche is quickly filled by companies that offer their technologies and visions.

Therefore, to ensure security, separate developments in this direction will be required in different areas:

Identification of new malicious technologies of the unreal world before they become a systemic huge risk.

- Development of understanding and active management of the impact on the physical and mental health of the Metaverse.
- Focus on the credibility of information coming into the organization, such as potential fraud or misinformation
- Consider methods such as the use of distributed ledger technologies for provenance.
- Giving people the opportunity to authenticate the company and its results.
- Planning responses to malicious use of fakes or misinformation campaigns against the brand.
- Studying scenarios of the most dangerous threats and developing appropriate measures and an action plan to respond to events
- Measuring energy consumption to power the Metaverse (and related technologies such as cryptocurrency) and efficiently posting emissions information.
- Designing user experience in such a way that it is accessible to all consumers, including those with visual, hearing, and mobility impairments.
- Measures to limit the coding of social inequality (e.g. economic, gender, and race) in the metaverse.
- Compliance with the policy against harassment and bullying on the platforms

“

Where is metaverse now?



KEVIN REN

Partner at Cryptogram
Venture (CGV)

The development of metaverse-related industries is transitioning from metaverse 1.0 stage, which is characterized by "concept marketing", to metaverse 2.0 stage, which is characterized by "value reshaping". In the metaverse 1.0 stage, whether it is the technology base, product form or business model, most of them are in the early exploration state, and the metaverse is given more hot concepts and market hype; the ongoing metaverse 2.0 stage shows an ecological explosion: the infrastructure layer of the metaverse, including communication network, cloud computing and network protocol, will become more mature; the software layer of the metaverse, including The software layer of the metaverse, including the openness and composability of virtual space, will continue to improve; the application layer of the metaverse, including the ecology of economies built around virtual space, and the aggregation business that connects different metaverse, will flourish.



In the future, metaverse will become the best practice carrier of Web3, a technology trend that takes technological innovation such as blockchain, artificial intelligence, big data and DAO organization innovation as the development direction, and metaverse is an application trend that takes new scenarios and new lifestyle changes as the integration and evolution, which are complementary to each other. CGV predicts that based on Web3 model, building a value network based on the design, planning, construction and circulation of metaverse, and aggregating all metaverse and its assets, will breed a brand new business model and may give birth to tens of billions of dollars.

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Cryptogram Venture (CGV) is a Japan-based research and investment institution engaged in crypto. CGV FoF is the limited partner of Huobi venture, Rocktree capital, Kirin fund, etc. With the business philosophy of “research-driven investment”, it has participated in early investments in Japanese government-regulated yen stablecoin JPYW,

Among portfolio:



Republic



CASPERLABS



the graph



Alchemy Pay



BitKeep





PERSPECTIVES OF METAVERSE AND VR TECHNOLOGIES

HOW CAN THE METAVERSE AFFECT SPORTS?

In sports, for example, NFTs can be used to sell authenticated, collectible, limited edition digital content. Leagues, teams, and individual high-profile athletes are verifying and licensing non-fungible tokens that are starting to serve as trading cards for the digital world.

"NBA Top Shot by Dapper Labs is perhaps the most famous, but today there are thousands of sports NFTs that can be bought and sold on platforms like OpenSea, a digital asset secondary market. Defender Tom Brady's NFT startup, Autograph, recently raised \$170 million in Series B funding, according to Fortune" - „The future of digital assets in sports“ by PWC.

Many teams have already begun to treat digital tokens as tickets and give those who wish—especially season ticket (STM) members—access to special content in the real world or in the stadium. In addition, it is easier for teams to maintain a subscription waiting list – that is, for a small annual subscription (fee), members of this list can receive the same digital privileges as STM. However, tokenized passes, which are the next evolution of "paid subscriptions", allow organizations to receive special collectible NFTs for the games they attend or become STM members with special tokens that showcase a particular fandom. For sponsors and teams, tokenization is a great opportunity to collaborate and earn more.

BUT WHAT ABOUT GAMES, HOW CAN THE METAVERSE AFFECT GAMES?

"Social interactions are key in the video game – meeting up with people, communicating – is becoming of paramount importance," says Keith Stewart, game editor at The Guardian, in his Wunderman Thompson Intelligence report on 2021 trends Into the Metaverse. "A lot of the traditional ways of marketing to young people are gone forever. Gaming is where they are."

A good example is the interaction between Balenciaga and Fortnite, the first focused on showcasing content that was created by the second fandom, as well as a special space for this fandom – High Snobiety reported. Such collaborations are the visible emergence of a new reality in which virtual products, services and experiences are no less valuable than their counterparts in the real world.

"People are going to start seeing value in digital items," Kerry Murphy, founder and CEO of The Fabricant, told Wunderman Thompson, "and realize that they'd rather interact with a digital item, or have an infinite wardrobe of digital fashion items but a very limited wardrobe of physical items."

Animal Crossing, Sea of Thieves and Fortnite are becoming places to meet and socialize, not just games. "Part of video games is the social aspect—meeting people, talking—that becomes paramount," says Keith Stewart, game editor at The Guardian, Wunderman Thompson Intelligence. Xbox conducted a survey and found that almost two-thirds (61%) of British adults were playing games with friends and family to stay connected during the lockdown. Nick Veit, CEO and co-founder of social gaming startup Rec Room, told GeekWire that it no longer distinguishes between social and gaming platforms. "These entities, which were probably separate before, now we see how they merge together. I think in many ways games are the new social network" - "Into the Metaverse" by Wunderman Thompson Intelligence.

WHAT ARE THE PROSPECTS FOR FASHION?

Just as fashion becomes an important attribute of the metaverse, and vice versa, the metaverse is actively infiltrating fashion, for example, The Fabricant, a digital-only haute couture house, seeks to “show the world that clothes do not have to be physical in order to exist” – “Into the Metaverse” by Wunderman Thompson Intelligence.

The **metaverse is expected to increase its fashion market** share to \$6.61 billion USD from 2021 to 2026, and the market's growth momentum will accelerate at a CAGR of 36.47%².

HOW TO BUILD A METAVERS BUSINESS?

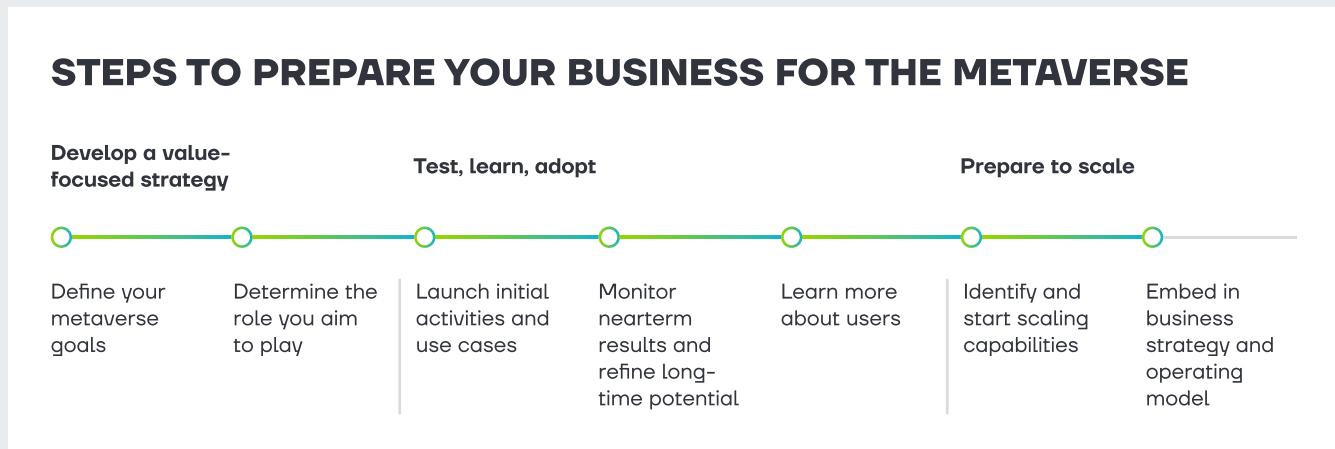


Figure 15: Steps to prepare business for the metaverse. Source: “Value creation in the metaverse” McKinsey&Company.

If you are interested in creating your own crypto company and business in the metaverse, then you need to consider what options it has for using the metaverse:

1. Basic – Basic applications of new technology focused on exploration and POCs.
2. Emerging – Digital experience applications that complement and connect with physical or otherwise pre-existing digital experiences.
3. Advanced – A digital native experience that uses several components of the metaverse's supporting technologies and creates a multi-user experience. A transaction represents the beginning of an interaction with a customer that contributes to their lifetime loyalty.
4. Differentiated – Multiple business lines that innovate in different aspects of the metaverse, support technology, and provide additional economies of scale. Connected to multiple metaverse ecosystems while maintaining a competitive edge through experience and technical excellence.

But before using your existing business in the metaverse, you need to competently transfer it there, that is, carry out a certain micro-revolution – which means there must be ways to prepare for the era of the metaverse:

But before using your existing business in the metaverse, you need to competently transfer it there, that is, carry out a certain micro-revolution – which means there must be ways to prepare for the era of the metaverse:

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Why are companies jumping into the metaverse?

Companies wield marketing budgets, but it's not just for PR. If we look at the transformation of media over the span of just one generation, it went from radio to TV, then computers to tablets and smartphones. Screen time has been the definitive metric for the attention economy, and I think that decision-makers are recognizing that the Gen Z and Gen A demographics are spending a lot of time in Minecraft, Roblox, Fortnite, and other virtual worlds.

This new lucrative cohort lives so immersively in these virtual experiences that it's a bona fide paradigm shift. Whoever can capture the attention in that arena will gain this new generation's brand loyalty, which is essential for any brand's long-term success. The metaverse, on the surface, looks a lot like a variety of experiences capturing the screen time of these emerging audiences — who are building long-term habits and identities — as they grow up to become spenders.

With the promise of the metaverse, the ability for a brand or corporation to own a piece of real estate that can directly interact with future audiences — akin to owning a building on Main Street — is incredibly enticing if this concept takes off. These ultimately end up being small investments compared to the giant marketing budgets of corporations, which garners a few benefits from tech-focused PR. Meanwhile, virtual real estate, as a digital asset, is potentially profitable and can rise in value over time and be sold on a secondary market.

For companies, a small cost can lead to game-changing upside for brand loyalty, new market reach, and low investment risk. It ultimately will be up to the metaverse makers to create experiences that rival the incumbent virtual worlds, and for audiences to adopt ownership of their virtual lives through Web3 identities rather than having them owned by a corporation.

”



STEVE IP

CEO of Conductive.ai

Near term actions:

- Pick up speed. Most businesses lack institutional familiarity with rapidly evolving metaverse concepts. “Many may also lack the skills and processes to truly understand and trust their digital transactions and investments^[SH2].”
- Develop a strategy. There are certain gaps that need to be closed to open long-term opportunities to build—or continue—a business based on the metaverse and use its key concepts, as well as develop new ones that are unique to your business.
- Test the waters. “Choose a few possibilities that are available today within the major trends of the metaverse. Low risk use cases include selling digital versions of physical goods, offering virtual tours of virtual products or facilities, and launching NFTs to increase brand awareness and customer connections.”

Long term foundations:

- The components of the new digital world are creating new cybersecurity challenges, requiring new, stronger privacy rights, as well as regulatory compliance, brand reputation and anti-fraud efforts.
- Rethink core competencies. Competitive advantage in the metaverse can be very different from the classical one, so businesses may need upskilling and recruiting to close skill gaps, as well as new approaches to data and business relationships.
- Combine physical and digital. Strive for a consistent brand experience across both physical and digital designs.



RESULTS

By 2030, it is likely that more than 50% of events can be held in the metaverse. For more than 80% of stores, an alternative of virtual shopping may appear. Very similar statistics are predicted for tourism and education.

As we can see, a lot of high-profile venture capital and technology companies have recently joined the metaverse market. Fashion houses, global brands and public figures did not leave this area without attention. Some industries will have a higher potential, which the infographic above has attempted to predict.

Metaverses can serve as an advanced digital transformation that can turn many processes around as part of a global digital transformation.

There are 3 options for the development of metaverses by 2030:

LOW ORBIT

The metaverse excels for the things it's good at but never becomes a general-purpose platform.

- Fragmented marketplace, with no dominant player and overwhelming consumer choice
- User interface works well for certain uses but is difficult to integrate into daily life
- Consumer adoption high in gaming, sports, entertainment, and some retail
- Enterprise adoption limited to some team collaboration, virtual conferences, augmented training/learning, and immersive digital twins
- Regulation inconsistent across nations and regions

The bottom line: A specialty market for specific uses that will complement but not replace other technologies.

DOUBLE STAR

There's not a single metaverse, but a handful of major play vying for share of a dynamic marketplace.

- Lack of interoperability requires users to commit to a "home" platform
- Abundant capital and active M&A leads to a highly concentrated market
- Competition drives accelerated technological innovation in hardware and software
- Ecosystems compete for user attention through exclusive content and partnerships
- Platforms enact strong and effective self-governance

The bottom line: A mainstream market for many applications but split among the next generation of leading platforms.

BIG BANG

An open, interoperable metaverse becomes the dominant interface through which we conduct most of our daily activities.

- User interface enables relatively seamless merged reality between physical and digital worlds
- Identity in the metaverse is considered equivalent to that in the physical world
- No single provider, with many innovators and an open, interoperable system
- Pervasive adoption across consumer and enterprise use cases
- Strong governance, with strict and enforceable rules around digital ownership and privacy/security

The bottom line: The full migration of today's internet and more into an immersive world in which most businesses and consumers operate.

Figure 16: Three potential scenarios for the metaverse by the early 2030s. Source: "A whole new world?" Deloitte.

There may be several development scenarios for the next 8 years.

It is possible that the metaverse industry will remain in the current format, when the main user popularity is collected by a narrow circle of projects and the key roles are taken by already established teams and organizations.

In the view of the novelty and tangible innovation that virtual reality brings, we believe that we will survive this stage and further development will be like Double Star or Big Bang.

SUMMARY

If you have read this material to the end, then thank you very much. We hope that you have received useful information that will allow you to see the metaverse segment a little wider than the average user.

- According to various estimates, the explosive growth of the XR and VR technology industry in the period from 2022 to 2030 will grow to 4-6 billion dollars. Compared to 0.2-0.3 billion in 2022, these numbers are simply huge.
- Huge amount of the investments in these industries are carried out through M&A processes. We cited at least 16 deals of large companies with a trading volume of more than \$10 million, and these numbers will grow - because it is still easier and more profitable for institutional giants to acquire companies in a young industry, but given the exponential growth of this "young" industry - so will not always be, and perhaps in the future everything will be the other way around.

The main areas of application will be e-commerce, the fashion industry, holding events and events, gaming, education, art, and tourism.

- There may be several development scenarios for the next 8 years. The metaverse industry may remain in the current format when the main user popularity is collected by a narrow circle of projects and the key roles are taken by already established teams and organizations.

But, because of the novelty and tangible innovation that virtual reality brings, we believe that we will survive this stage and further development will take place in the format of something between Double Star and Big Bang.

- To do this, we need to take care to remove the existing barriers to VR and XR, including ensuring the systematic study and production of hardware, development, and support, strive to simplify the integration of work projects, and hope for 5G network everywhere.

In 2018, at the same time as the crypto-winter, there was a decline in activity in the segment, from the consequences of which the metaverse managed to move away in 2020.

Summing up, we want to remind the reader once again the purpose of our article - to understand the attitude of institutional firms to such a simultaneously new phenomenon as the metaverse, to understand what they find in it that is unique and attractive regarding ideas and implementation, and, what of this, each of us can bear for himself.

We found out what the metaverse is, what it is made of, how it already interacts with reality and its components (business, fashion, gaming, and so on), what pitfalls prevent the rapid implementation of the meta-reality (interoperability, XR, etc.), what opportunities the metaverse has in the future in each of the spheres of life and how these spheres of life should interact and realize themselves in the "new world", and of course, once again we were convinced that the metaverse is an integral part of the future and its potential is limited only by the framework of our imagination and today's technologies.

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ABOUT CRYPTOMERIA CAPITAL

Cryptomeria Capital is a crypto fund backed by blockchain industry experts. The firm believes decentralized projects, cryptocurrencies, and Web 3.0 will dramatically reshape economic relations and focuses on ventures, tokens, and projects related to blockchain technology and crypto assets. Cryptomeria Capital supports transformation by providing early-stage financing for ambitious projects in a rapidly developing industry.

ABOUT AXON PARTNERS, BME:APG

With international presence and global reach, Axon has 2 different business units: alternative investment and strategic consulting that offer their services in more than 70 countries, with high exposure to the Americas, Europe, Middle East and Southeast Asia.

2006

Year founded

>50

Companies backed

€780M

AUM

12

Funds

+100

 Years of accumulated
experience of the partners

+85

Employees

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