

# Metaverse: Operators call

29 November 2022

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# Metaverse market players,

## Growth prediction & outlook

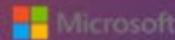
The metaverse is a persistent, interconnected, virtual environment where we can work, shop, play, socialize, entertain

### MARKET PLAYERS

**Facebook** Social media giant has said it will spend more than \$10 billion to build out its vision for Metaverse



**Microsoft** announced that it will launch Mesh for Microsoft Teams, the firm's video-conferencing platform, which will be the gateway to the metaverse.



**Google** US tech giant will pour \$40M via private placement in Ennoconn, as the iPhone supplier continues to dream big for metaverse.



**Epic Games** raised \$1 billion in funding towards its own vision in Metaverse



**NVIDIA** brings Millions More Into the Metaverse With Expanded Omniverse Platform



**Disney** patents metaverse technology for theme parks that would track visitors while projecting personalized 3D images for them.



### GROWTH PREDICTION

## \$800b

**Bloomberg** say by 2024, Metaverse may reach \$800 billion market, next tech platform with a compound annual growth rate of 13.1%

## \$8t

**Morgan Stanley** expects the metaverse to be an \$8 trillion addressable market soon

## \$1t

**Grayscale Investments** Crypto giant estimated Metaverse Is A \$1 Trillion Revenue Opportunity

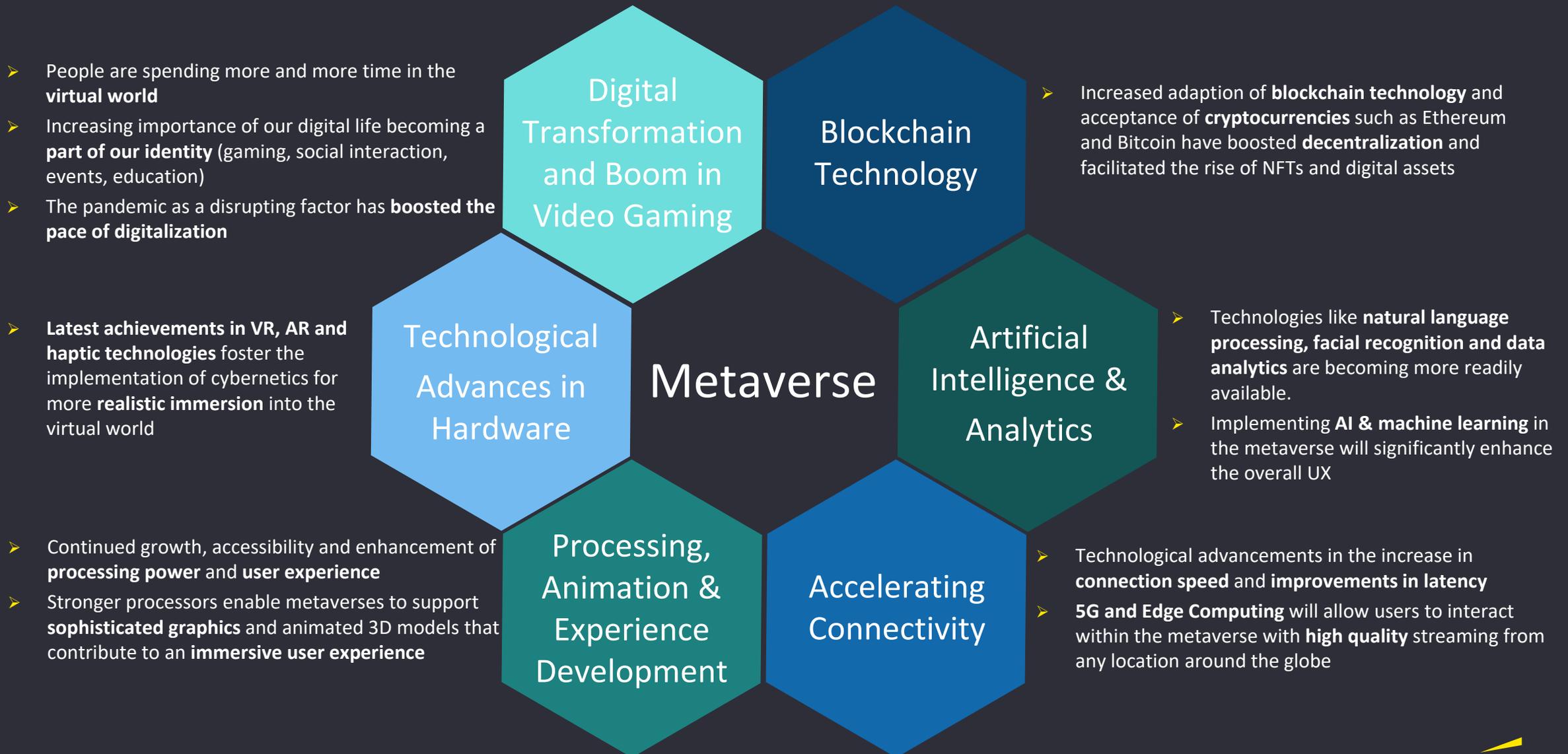
## Inevitable

**The Washington Post** The next version of the Internet is often described as the Metaverse. The Metaverse is inevitable.

## Next big

**Markets Insider** reported that Morgan Stanley in a note to its investors identifies the metaverse theme as the next big investment opportunity

# Trends and motivating factors explaining the recent hype around the metaverse



# Meta Core Concepts

## Interoperability

- Interoperability refers to a user's ability to create virtual experiences, possessions and identities that will persist across multiple platforms. [15]
- In an interoperable model, you will easily traverse between virtual environments and platforms.
- In this model, no one company owns, controls or mediates the metaverse.



## Decentralization

- Decentralization is the idea that the metaverse will not be regulated or run by a single corporation or individual. [16]

*“We expect that ultimately, there will be only one metaverse in the same sense that there’s only one internet. No single company will own, control or develop all the necessary technology or build its own metaverse or the metaverse as a whole.” – Gartner [17]*



## Immersion

- Immersion is the act or instance of complete engagement or involvement in a practice, exercise or state of being. [18]
- Immersion describes the depth of user experience; particularly how virtual environments create profound impressions of engagement, authenticity and realism.



## Persistence

- Persistence refers to the continuity of user experience across various platforms and environments; the continuity of digital assets, commodities and accoutrements regardless of environment. [19]
- The metaverse will provide persistent, decentralized, collaborative and interoperable social and professional experiences and business opportunities.



# Non-technology companies moving into the metaverse



Insurtech YuLife (Life insurance) created their Yuniverse, a virtual world build around the YuLife app that uses gamification to boost wellness and health of its users improving the appeal of insurance products

2021



Adidas collaborated with Bored Apes Yacht Club creating its own NFT - 'Into the Metaverse' granting owners of the NFT to claim physical merchandise and access to virtual metaverse experiences

12/2021



NIKE acquired NFT start up RTFKT specializing on creating virtual footwear and digital collectibles

12/2021



Disney submitted a patent technology for a theme park metaverse, tracking individual park visitors to personalize the projections by projecting 3D images and virtual effects onto physical spaces

01/2022



Samsung launched Samsung 837X, an immersive metaverse experience in Decentraland modeled on the physical flagship store in New York City offering users quests, product drops, events and NFT prizes

02/2022



JP Morgan opened a lounge in Decentraland, becoming the first bank to enter the metaverse

02/2022



American Express already filed trademark applications to register its name, logo, and slogans for a range of banking services in the metaverse.

03/2022



Heineken launched a virtual beer, Heineken Silver, in the worlds first virtual brewery in Decentraland as part of their marketing campaign

03/2022



Tintra announced the launch of the world's first Web 3.0 banking platform by using metaverse and blockchain interoperability, transparency via cryptographic mechanisms, as well as blockchain-based verification tools.

03/2022



IMA Financial Group announced the launch of IMA Web3Labs, an insurance and risk management research and development facility in the metaverse; IMA Web3Labs will initially research risk mitigation specific to NFTs

03/2022



HSBC announced to acquire land in The Sandbox Metaverse to create inclusive, educational and accessible experiences with Sandbox users

03/2022



VERSACE

Versace has filed a trademark application aiming to offer virtual clothing, eyewear and jewelry, stores featuring virtual goods and NFTs / crypto collectibles

03/2022

# Who will build the Metaverse?

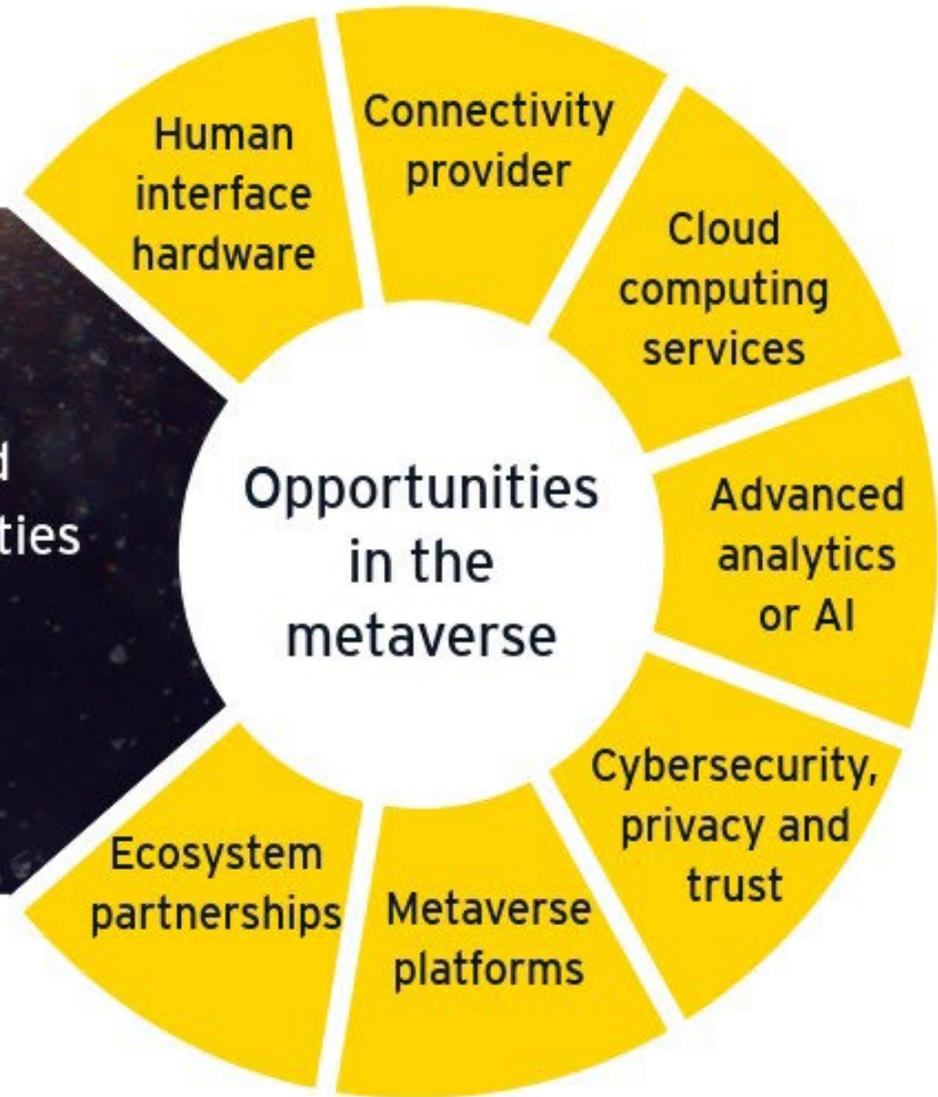
Who built the web we have today? Everyone.

The Metaverse will not be a single experience, company, or technology – rather a dynamic ecosystem of many metaverse platforms, technology and infrastructure providers, financial services, developers, creators, brands, users, and many others.

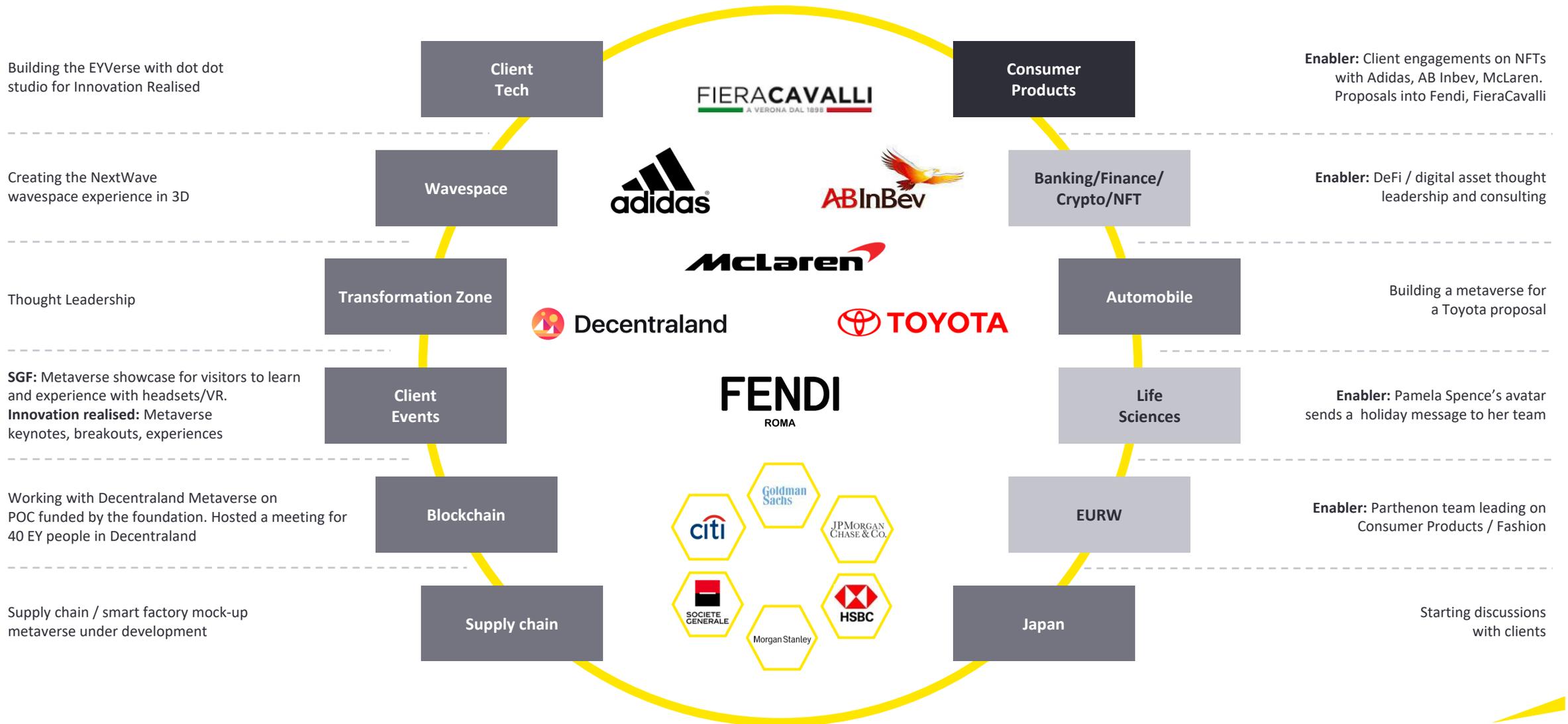


|                   |  |
|-------------------|--|
| Experience        | <p>All conversion of physical space, distance and objects, including games, VR software, virtual assistants, virtual events.</p> <p><b>Metaverse gateways, Social, Economy</b></p> <p><b>ROBLOX MINECRAFT FORTNITE</b></p>   |
| Discovery         | <p>Layer which introduces people to new experiences. Inbound like community driven content and outbound including advertising and notifications.</p> <p><b>Metaverse gateways, Social, Adtech</b></p> <p><b>Stadium LIVE</b>  Decentraland  <b>BIDSTACK</b></p>  |
| Creator economy   | <p>All of the technology creators use to craft; editors, tools, templates and marketplaces.</p> <p><b>Metaverse gateways, Economy</b></p> <p> 微信支付 WeChat Pay  PayPal  coinbase</p>  |
| Spatial computing | <p>Technology to enter into and manipulate 3D spaces or to augment the real world with more information and experience (3D engines, geospatial mapping, object recognition, voice and gesture recognition, data integration from devices and biometric from people).</p> <p><b>Avatar and identity, Artificial intelligence, Visualisation and digital twin</b></p> <p><b>nreal</b>  UNREAL ENGINE  NVIDIA</p> |
| Decentralisation  | <p>Structure of the metaverse where it is not controlled with single entity. All decentralisation technologies like DeFi and distributed computing.</p> <p><b>Decentralised infra</b></p> <p><b>Polkadot.</b>  ENJIN  SOLANA</p>   |
| Human Interface   | <p>All the hardware enabling interaction with the metaverse. Phones, VR sets, AR sets, wearables.</p> <p><b>User interface &amp; Immersion</b></p> <p> Microsoft HoloLens  oculus </p>   |
| Infrastructure    | <p>Technology which enables our devices to connect to the network and delivers content. 5G, miniaturisation of processing units and sensors, efficient batteries.</p> <p><b>Connectivity, Cloud Scalability and Hosting</b></p> <p> Google Cloud  verizon  T-Mobile</p>  |

## Opportunities for telcos in the metaverse



# EY support client organizations to transform for Metaverse

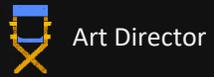


# EY Metaverse CoE

- Hired world leading 3D designers and animators to deliver solutions in house
- Platform agnostic...can meet any client needs

## A SKILLED CORE TEAM

A core team with niche skills like 3D space design, 3D animation for immersive digital worlds



Art Director



3D Asset Creators & Texturing experts



Low Code Platform Experts



Unreal Engineers



World Designers



Unity Engineers

## TOOLS & TECHNOLOGIES



A cozy setting to host a **FIRESIDE CHAT**



Re-imagining **Retail** in the Metaverse!



Future of travel industry



EY Collaboration verse



A virtual plenary space with breakout sessions showcased to **G360 Client**



A dark, low-key photograph of a person wearing AR glasses. The glasses have a glowing, bokeh-like effect across the lenses. The person's face is mostly obscured by shadows, with only their eyes and the light from the glasses visible.

Thank You

# Appendix

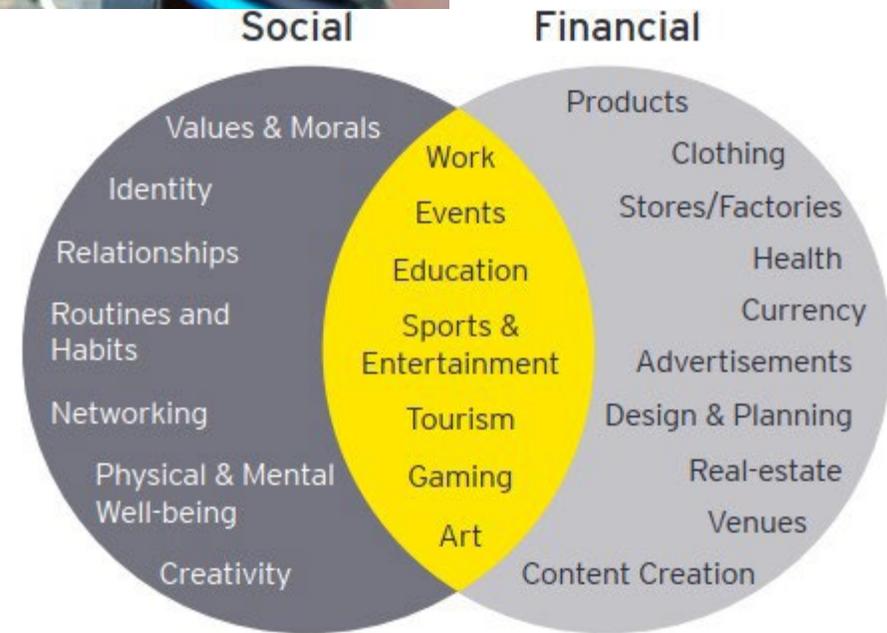
Bloomberg says by 2024, Metaverse may reach **\$800b**<sup>12</sup> market, a CAGR of 13.1%

Morgan Stanley expects the metaverse to be an **\$8t**<sup>13</sup> addressable market soon

Grayscale Investments Crypto giant estimated Metaverse as a **\$1t**<sup>14</sup> Revenue Opportunity



6 | Metaverse





### Health and life sciences

Medical training simulation, virtual prevention or awareness, diagnosis and treatment



### Education

Virtual campuses or classrooms



### Government

Virtual offices for service delivery and spaces for citizen engagement



### Real estate

Virtual real estate services, metaverse plot sales and development planning



### Energy

Virtual workforce training, VR-based health and safety simulations, planning simulations and optimizations



### Retail and consumer

Metaverse-based experiences for purchasing physical goods or purchasing virtual goods (e.g., Nike filing for patents for virtual sneakers and collectibles for the metaverse), virtual shops and malls with product interaction and virtual assistant engagement



### Advanced manufacturing and mobility

Production process simulation and optimization, and product design socialization (in the manner of YouTube with content)

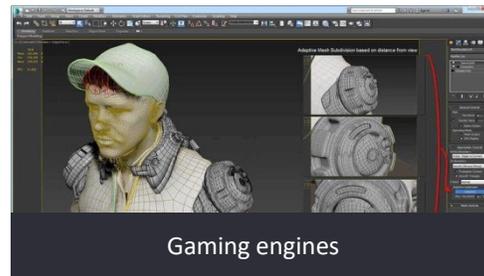
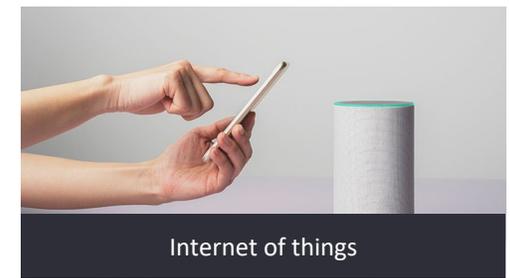


### Financial services

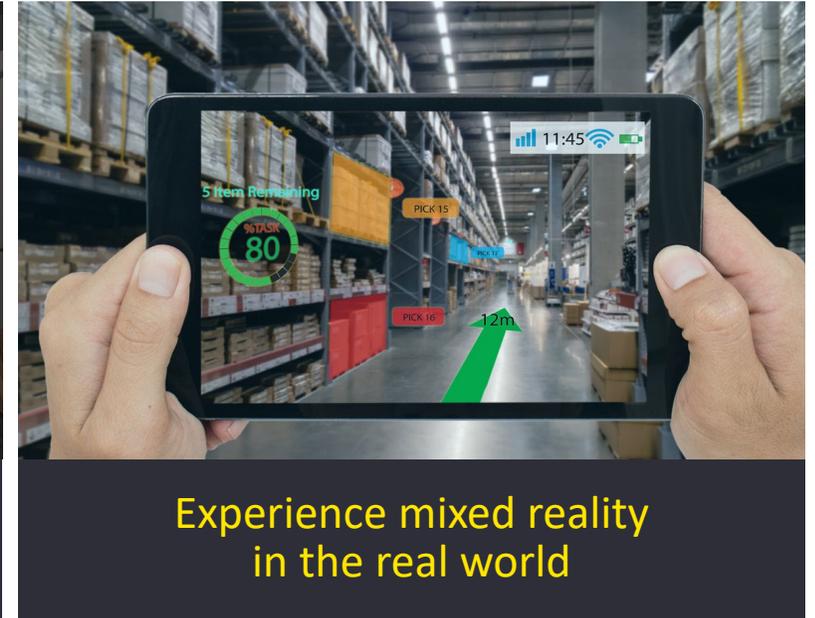
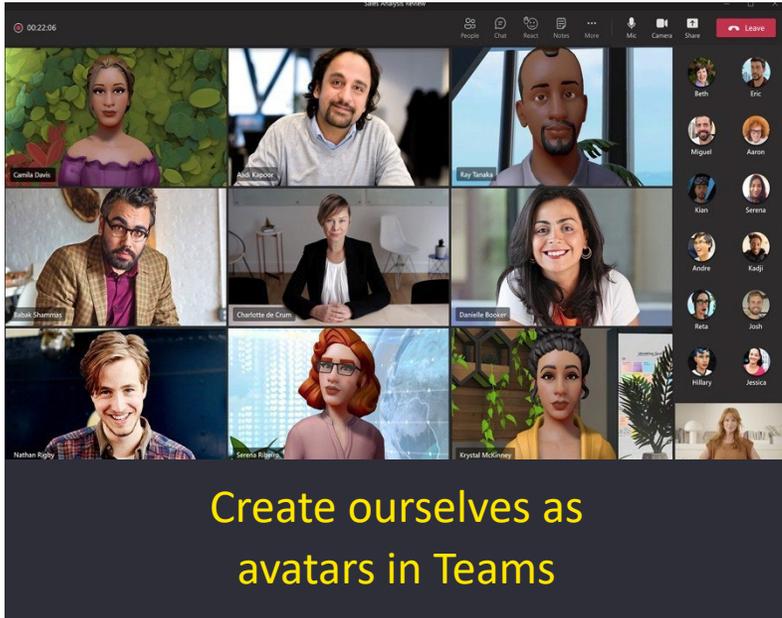
Virtual branches for service delivery and customer care, public relations and recruitment spaces to engage with stakeholders

# Technologies which will power the Metaverse

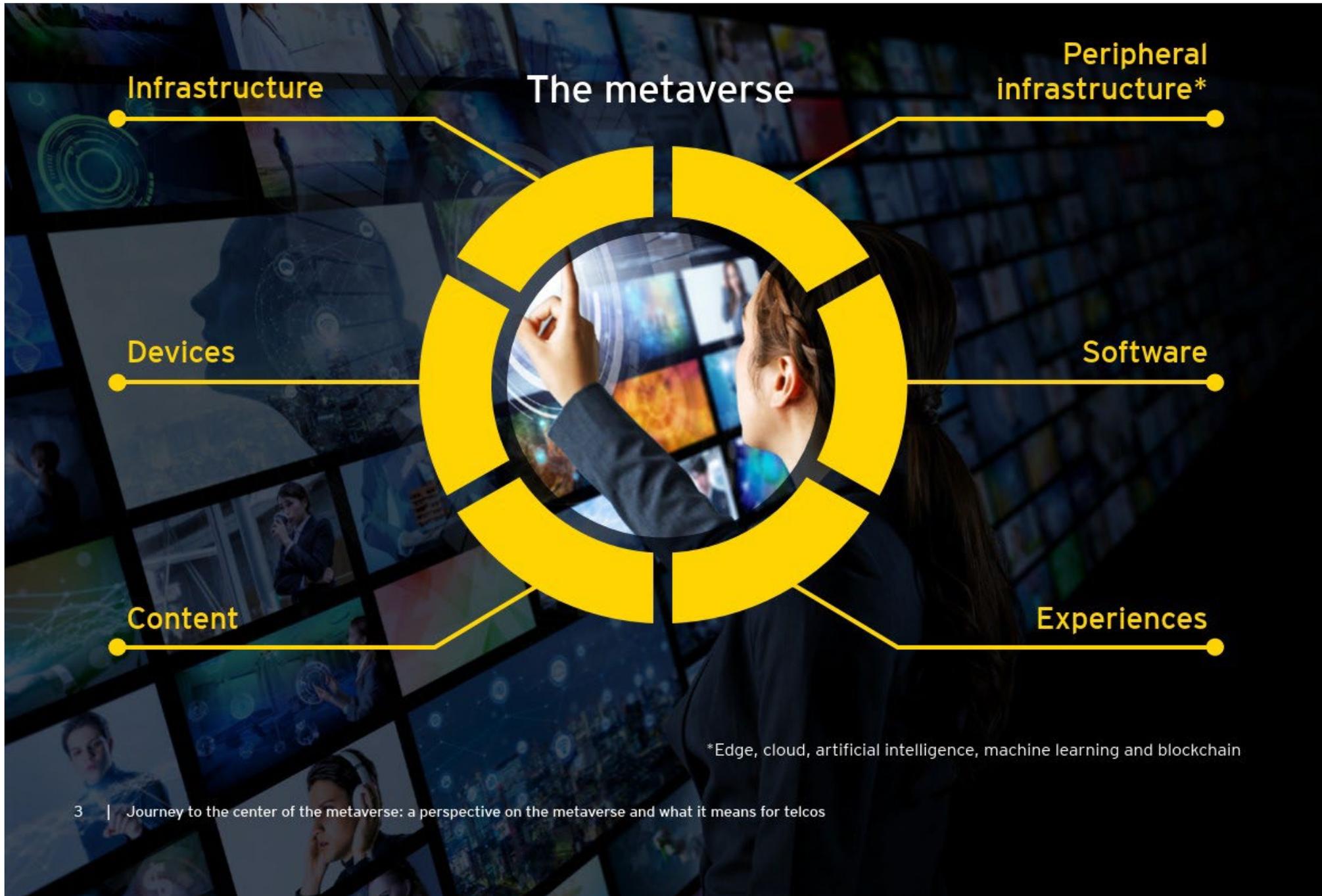
Building the Metaverse will require us to break new ground in almost every core digital technology – plus some relatively new ones.



# The journey to the metaverse for EY people to learn more could be ...



Stay abreast, innovate and progress rapidly with the technology POCs and offerings



# How is the metaverse immersive?

- **Virtual Reality**

- A computer-generated, 3D environment that surrounds the user and responds to individual actions, usually by way of a head-mounted display. Engagement with Virtual Reality (VR) often employs gesture recognition or handheld controllers to provide body tracking and haptic feedback experiences. [9]

- **Augmented Reality**

- Augmented Reality (AR) integrates virtual objects into the user's experience of the real-world, as opposed to VR -- which exists as a simulation. AR often employs devices to enhance real-world experience by overlaying information in the form of text, image, audio and other virtual enhancements. [10]

- **Augmented Virtuality**

- Unlike AR, Augmented Virtuality (AV) uses a device to simulate real objects within virtual environments. Once digitized, users can manipulate and analyze these real-world simulations within a virtual environment. (i.e., Digital Twin) [11]

- **Mixed Reality**

- Also called "polyplexity", mixed reality (MR) is the merger of real and virtual worlds to produce new environments and visualizations, where physical and digital objects can co-exist and converge in real time. [12]

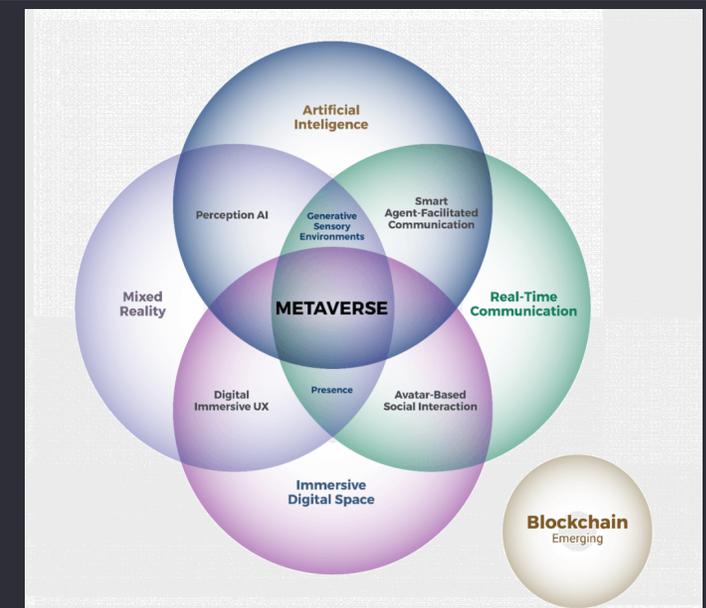
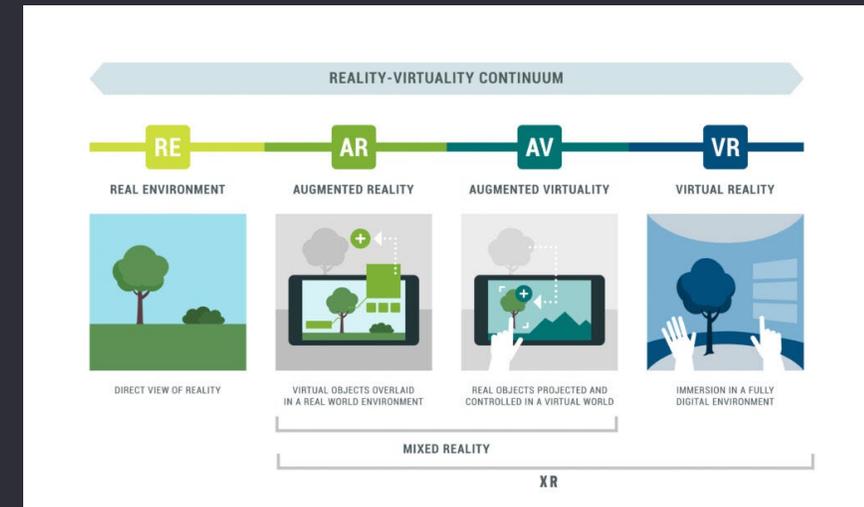


Figure 4: The Reality-Virtuality Continuum  
Source: Alamy [13] / Info-Tech Research Group [14]



# Example– Virtual Transformation Hub



# The Metaverse economy is a structural trend and major companies are already leveraging growth opportunities

Facebook CEO Mark Zuckerberg launched Meta and sketched his plans to build Metaverse



28 October 2021

Bill Gates disclosed his full support to Mark Zuckerberg's view and said Metaverse will become the future of meetings



07 December 2021

Nike, Inc. announced the acquisition of RTFKT, a virtual sneakers and collectibles brand to launch next generation of collectibles



17 December 2021

Walmart filed new trademarks showing its intention to create and sell own virtual goods, cryptocurrencies and NFTs



30 December 2021

Samsung opened a Samsung 837X virtual store on the Ethereum-based virtual reality platform Decentraland



6 January 2022

28 October 2021

Coca-Cola launched its own NFT collection in July 2021. The auction fetched \$575k



30 November 2021

Budweiser launched its first NFT sale featuring 1,936 unique Budweiser digital beer can designs. The pilot generated \$2m



13 December 2021

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5 January 2022

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18 January 2022

Samsung opened a Samsung 837X virtual store on the Ethereum-based virtual reality platform Decentraland



# The Metaverse economy skyrocketed over the last year reaching \$350b in 2021



## Persistent ecosystems



## Collectibles



## Gaming



### Description

- Immersive space in a shared virtual universe
- Users' avatars can interact and construct experiences
- NFTs are objects, lands, etc.
- Fusion of the physical with the digital and virtual layers



### Market size

**119 Bn\$** (\$6b in 2020)  
**+1'900% in 2021**



### Major players



- Digital collectibles that exist on a blockchain and are sold online with cryptocurrency
- Unique, rare or limited-edition copy of a virtual or physical item with often benefits attached
- Various types: digital art, card, image, music, video, etc.

**\$41b** (\$1b in 2020)  
**+3'300% in 2021**



- Games allowing to use NFTs in their ecosystem (e.g. skins garments, pets, lands, etc.)
- Gamers can win new NFTs or upgrade the ones they own
- Games can be encompassed within the metaverse

**\$180b**  
**Growing +20% CAGR**



# What is the Metaverse?

- The metaverse is a persistent, interconnected, virtual environment where we can work, shop, play, socialize, entertain
- However, the Metaverse is much more. It is a web of connected, interoperable, and persistent individual metaverses.

Metaverse market size opportunity predicted to be

**\$800B  
by 2024**

The metaverse is a developing opportunity.

