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# A whole new world!

## Betashares Metaverse ETF

**ASX: MTAV**

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#### Introducing Betashares Metaverse ETF (ASX: MTAV)

Have you ever wished you could have invested in the internet when the World Wide Web first took off? While still an early stage technology, the Metaverse has the potential to be one of the biggest secular growth trends of the coming decades.

By some estimates, revenues from the Metaverse market could be worth hundreds of billions of dollars by the end of 2024.<sup>1</sup>

The Metaverse, while a somewhat broad and nebulous concept, is essentially a 'super-thematic' of existing thematic exposures – capturing the myriad of areas that facilitate the digitisation and virtualisation of communities, experiences, and commerce.

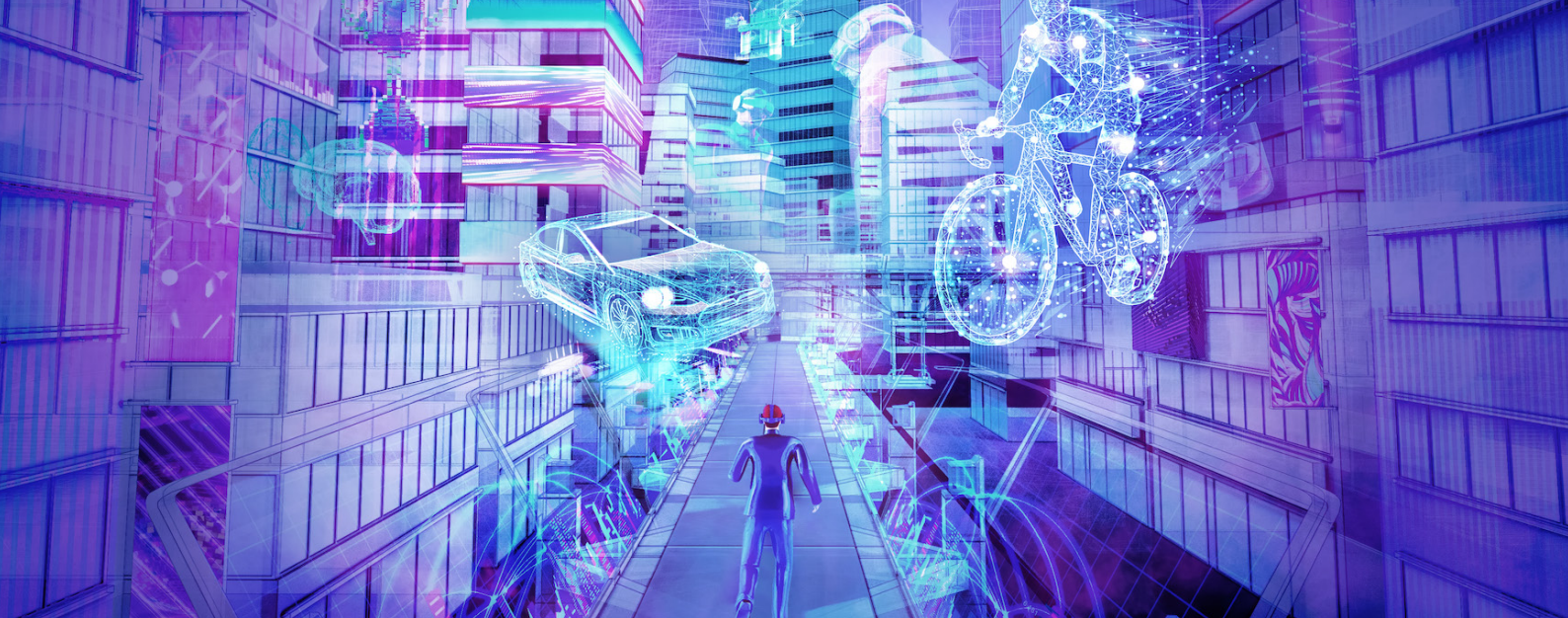
The Betashares Metaverse ETF has been designed to provide investors with exposure to some of the world's leading companies in this emerging sector.

#### What is the metaverse?

The term '*Metaverse*' was first coined by Neal Stephenson in his 1992 science fiction novel *Snow Crash* to depict a 3D photo-real digital meeting space, in which humans, represented by programmable avatars, interacted with one another.

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<sup>1</sup> Source: Bloomberg Intelligence, December 2021. Actual outcomes may differ materially from estimates. <https://www.bloomberg.com/professional/blog/metaverse-may-be-800-billion-market-next-tech-platform/>



Three decades may have passed – but there still is no industry-wide agreed definition of what the Metaverse is.

Mark Zuckerberg, Chairman and CEO of Meta Platforms (previously known as Facebook), said:

*You can think about the Metaverse as an embodied internet, where instead of just viewing content, you are in it. And you feel present with other people as if you were in other places, having different experiences that you couldn't necessarily do on a 2D app or webpage, like dancing, for example, or different types of fitness.*

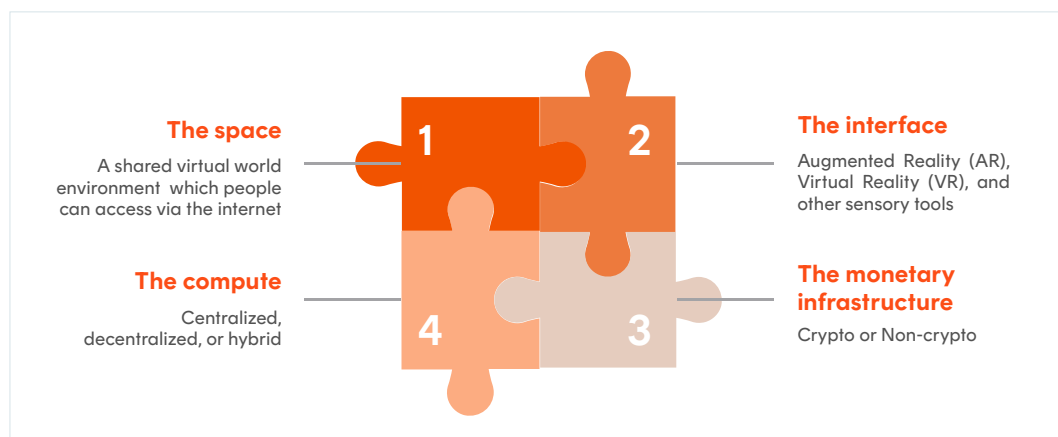
Currently, probably the most common way the Metaverse is conceptualised is the idea of the video gamer wearing a virtual reality (VR) headset.

Video gaming is certainly a part/exemplar of the possibilities of the Metaverse, but it is not the same as the Metaverse.

The Metaverse can be thought of as a shared virtual space where megatrends converge. These include online games, social networks, and live entertainment with pop stars. The user experience can be augmented with the help of technology, for example using digital avatars.

## What does the metaverse incorporate?

Citi Global Insights offers the following conceptualisation of the Metaverse ecosystem:



Source: Citi Global Insights.

### The Space

Requires persistent, real-time connections, high bandwidth networks, and exchange centres, among other items, that create an immersive digital experience.

### The Interface

This is the hardware that enables access to the Metaverse, and includes Virtual Reality (VR) and Augmented Reality (AR) headsets, mobile devices, smart glasses, and other sensory tools.

### The monetary infrastructure

Critical to the Metaverse will be the ability for users to buy and sell digital assets. This will require infrastructure to support digital payment processes.

### The compute

The evolution of the Metaverse will make unprecedented demands of computing power, including the software that brings objects into 3D and allows users to interact with them. This is likely to involve a combination of existing technologies and ones still in development.

## How big is the Metaverse market?

Estimates of the size of the *'Metaverse opportunity'* vary as widely as definitions of the Metaverse itself.

According to Citi Global Insights, if a narrow definition of the Metaverse as purely a *'Virtual Reality'* world is adopted, by 2030 there may be around 1 billion users, and a total addressable market (TAM) of \$1-\$2 trillion.

If a broad definition of a *'persistent and immersive combination of the physical and digital world'* is used, the Metaverse expands to a potential 5 billion unique users with a TAM of \$8 - \$13 trillion.

According to Bloomberg Intelligence, the market opportunity for *'bringing the metaverse to life'* could potentially approach \$800 billion in annual revenue by 2024<sup>2</sup>.

For reference, in 2021, global recorded music revenues were US\$25.9 billion<sup>3</sup> and the total worldwide box office revenue was US\$31.4 billion<sup>4</sup> - down from a pre-COVID record of US\$42.5 billion in 2019.<sup>5</sup>

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<sup>2</sup> Source: Bloomberg Intelligence, December 2021. Actual outcomes may differ materially from estimates. <https://www.bloomberg.com/professional/blog/metaverse-may-be-800-billion-market-next-tech-platform/>

<sup>3</sup> <https://www.musicbusinessworldwide.com/global-recorded-music-revenues-hit-25-9bn-in-2021-up-18-5-yoy>

<sup>4</sup> <https://deadline.com/2022/01/2021-worldwide-box-office-studio-rankings-hollywood-market-share-covid-spider-man-no-way-home-1234905569/>

<sup>5</sup> <https://deadline.com/2020/01/highest-grossing-movie-studios-2019-record-international-global-box-office-market-share-chart-analysis-2020-forecast-1202823471/>





## What will drive the growth of the Metaverse?

As the Metaverse evolves, consumers are expected to spend more and more time in virtual worlds. In order to stay connected with those customers, brands will have to invest considerable resources towards their Metaverse strategy.

Just as bricks and mortar companies had to establish and develop an online presence as commerce moved increasingly online, businesses will have to establish and maintain a 3D, digital presence inside virtual worlds.

Younger generations in particular are likely to be demanding in their expectations of the interactive experience of the Metaverse, meaning businesses will have to devote resources to constantly managing and refreshing their content.

The Metaverse is also likely to play a significant role in shaping the future of music and entertainment.

In 2021, Ariana Grande staged her Rift Tour within the gaming app, Fortnite. The event amassed 1.3 million concurrent viewers at its peak, with more than 75% watching on Twitch. Moreover, the concert generated 11.03 million live hours streamed on Twitch and YouTube combined<sup>6</sup>.

Such experiences are likely to be just as appealing to artists as they are to consumers, offering an attractive way to connect with their audience. Artists face notoriously feeble payments from streaming services for the content they produce, live concert tours are notoriously expensive to undertake, and intermediaries such as record labels extract a hefty cut along the way.

Virtual performances and Non-Fungible Tokens (NFTs) have the potential to benefit both fans and artists.

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Determining which businesses are truly exposed to the Metaverse is a complex task, and one that cannot be determined by a purely quantitative or rules-based process. MTAV aims to track an index offered by Bloomberg, the Bloomberg Metaverse Select Index. Bloomberg Intelligence, the research arm of Bloomberg LP has more than 400 professionals who provide in-depth analysis on thousands of companies across the globe. The Metaverse is a key focus for this group and their research underpins the companies that are eligible for inclusion in MTAV's index.

MTAV's index aims to track the performance (before fees and expenses) of companies that generate a meaningful amount of their revenues from activities related to the metaverse.

These fall into eight categories:

1. **3D Modelling:** companies that create the computer graphics that users will see in the Metaverse.
2. **Artificial Intelligence (AI) Servers:** companies that offer AI services needed to enhance experiences in the Metaverse.

3. **Advertising Revenue:** companies that sell advertising located in the Metaverse.
4. **Blockchain:** companies involved in digital currencies and other digital assets used or located in the Metaverse.
5. **Infrastructure-as-a-Service:** companies that build and own important infrastructure required to enable the operation of the Metaverse.
6. **Live Entertainment and Licensing:** companies involved with entertainment located inside the Metaverse.
7. **Token-Based Gaming:** companies that create games, or digital assets designed to be used inside games.
8. **VR/AR Hardware:** companies that design or manufacture the hardware that enables users to 'plug in' to the Metaverse.

## Who are the key players in the Metaverse?

As at the end of June 2022, there were 32 companies in the Bloomberg Metaverse Select Index. These include many large and profitable technology and entertainment companies, as well as more specialised companies with a focus on the core technologies that will enable the Metaverse.

Here are a few examples:

### Roblox

In 2020, over half of American children under 16 played Roblox<sup>7</sup>. Roblox is perhaps one of the best examples today that illustrate where the Metaverse could go. Roblox is not a game in and of itself. Instead, it's a platform where users can socialise, interact, and play games created by other users<sup>8</sup>. As of May 2022, there are over 40 million games available to play on Roblox<sup>9</sup>.

### NVIDIA

NVIDIA is most famous for its 'GeForce' graphics processing units (GPUs)<sup>10</sup>, which are critical for gamers and cryptocurrency mining<sup>11</sup>. GPUs will also be important for powering the graphic interface of the Metaverse<sup>12</sup>.

### Meta Platforms

Meta Platforms, formally known as Facebook, is changing the focus of its business. In October 2021, the company announced the name change and pivot towards the virtual world. Mark Zuckerberg said, "in our DNA we are a company that builds technology to connect people, and the Metaverse is the next frontier just like social networking was when we got started."<sup>13</sup>

<sup>7</sup> <https://www.theverge.com/2020/7/21/21333431/roblox-over-half-of-us-kids-playing-virtual-parties-fortnite>

<sup>8</sup> <https://www.theguardian.com/games/2019/sep/28/roblox-guide-children-gaming-platform-developer-minecraft-fortnite>

<sup>9</sup> <https://www.vg247.com/best-roblox-games>

<sup>10</sup> <https://www.investopedia.com/how-nvidia-makes-money-4799532>

<sup>11</sup> <https://www.nvidia.com/en-us/cmp/>

<sup>12</sup> <https://blog.imaginationtech.com/the-role-of-the-gpu-in-experiencing-the-metaverse/>

<sup>13</sup> <https://www.cnn.com/2021/10/28/facebook-changes-company-name-to-meta.html>





### **Matterport**

Though not as well known as NVIDIA or Meta Platforms, Matterport’s work could play an important role in the development of the metaverse. Matterport provides 3D cameras and software that allow companies to create virtual versions of their buildings<sup>14</sup>. For example, Sotheby’s use Matterport to allow potential customers to do virtual tours of luxury homes<sup>15</sup>.

### **Unity Software**

Unity is a tool for game developers known as a game engine. It provides many of the basic building blocks required to make a game. This includes things like physics and 3D rendering, as well as an “asset store” where developers can share their creations with others<sup>16</sup>. Unity works in both 2D and 3D, and supports 21 different platforms, including iOS, Android, Windows, and all major consoles<sup>17</sup>.

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<sup>14</sup> <https://matterport.com/>

<sup>15</sup> <https://matterport.com/discover/tag/sothebys>

<sup>16</sup> <https://www.androidauthority.com/what-is-unity-1131558/>

<sup>17</sup> <https://www.theverge.com/2015/3/3/8142099/unity-5-engine-release>

# Summary

Though the Metaverse is still an emerging technology, the potential applications of this exciting technology seem almost limitless. Many of the largest technology and entertainment businesses in the world see the Metaverse as a key part of their long term strategy and are currently investing heavily in its development.

As the future of the internet looks increasingly three dimensional, the hardware, software, digital currencies, and licences that power this ecosystem will become more and more valuable. An exposure to MTAV gives growth-seeking investors the opportunity to participate in the potential upside.

There are risks associated with investment in the Fund, including market risk, sector risk, Metaverse theme risk and concentration risk. The Fund's returns can be expected to be more volatile (i.e. vary up and down) than a broad global shares exposure, given its more concentrated exposure. The Fund should only be considered as a component of a diversified portfolio. For more information on risks and other features of the Fund, please see the Target Market Determination (TMD) and Product Disclosure Statement, available at [www.betashares.com.au](http://www.betashares.com.au).

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