



METaverse OPPORTUNITIES AND RISKS: What your business should know

WHETHER YOU—OR YOUR CUSTOMERS—ARE ACTIVE IN THE METaverse TODAY, THE CHANCES ARE VERY GOOD THAT THE METaverse WILL HAVE AN IMPACT ON YOUR BUSINESS. THOSE WHO UNDERSTAND THIS NEW LANDSCAPE FOR BUSINESS WILL HAVE AN ADVANTAGE WHEN IT COMES TO SEIZING OPPORTUNITIES AND AVOIDING PITFALLS.

As investment in the metaverse grows, so does the number of business opportunities. Gauging this opportunity can be a challenge because the metaverse essentially represents a [new market](#), and according to some, a new economy. This is a digital space that can replicate—or create—as many products and services as individuals and businesses are ready to support.

Perhaps for this reason, growth forecasts vary widely. The market opportunity for the metaverse could approach \$800 billion by 2024, up from approximately \$500 billion in 2020, according to [Bloomberg Intelligence](#). [McKinsey](#) says the metaverse could even reach \$5 trillion by 2030.

Regardless of the growth forecasts, there are developments in the metaverse *today* that your business should monitor. Many industries are already in the metaverse, and early adopters may have a competitive advantage. If you're unsure about how your business can participate in the metaverse, or if you're already there, Benesch understands how to navigate this unique landscape and can help you manage risk and maximize value.

Business opportunities

The metaverse presents a wide range of business opportunities, reflecting its existence as a brand-new digital marketplace. Any product, service, or activity you can think of may already have its digital counterpart in the metaverse. For example:

Gaming. This is one of the best-known aspects of the metaverse. As noted by [EY](#), gaming companies built early prototypes of the metaverse in popular games such as Minecraft, Fortnite, and Roblox. Meta's Horizon Worlds is also primarily a video game.

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What your business should know

Real estate. Virtual real estate is increasingly popular, with this market alone reaching around [\\$500 million](#) in February 2022. The [most popular](#) platforms are Sandbox, Decentraland, Cryptovoxels, and Somnium. [Benesch](#) recently leased real estate in the metaverse, signing a virtual land lease for an office in LawCity.com's Unitas Tower, located at 37, -58, Decentraland.

Entertainment. Entertainment in the metaverse isn't limited to gaming. Users can attend [concerts](#), some of which even take place [outdoors](#). A [Morning Consult](#) poll suggests younger users are most enthusiastic about live concerts—even more so than sporting events and shopping.

Fitness. Fitness [options](#) in the metaverse include private personal trainers, group fitness classes, dance classes, boxing, running, etc. Fitness apps typically create "hubs" that resemble gyms, and running apps [feature](#) well-known locations around the world, from The Beaches in Toronto to the Louvre in Paris.

Workplace collaboration. Workplace metaverse applications bring employees as close as possible to the feeling of "being there" when meeting with their colleagues. These solutions can reduce feelings of isolation and disconnectedness, particularly for employees working remotely. [Microsoft](#), for example, offers Azure IoT, Digital Twins, and Mesh as tools to digitize people, places, and things for business applications. As another example, [NextMeet](#), a company in India, created a VR (virtual reality) platform for workplaces.

Workplace training. How can a worker practice their customer service skills, without having a customer in front of them? Simulations in the metaverse replicate the feeling of interacting with a person, which can support employee training. Bank of America, an early adopter, deployed VR training in nearly 4,300 centers in [October 2021](#), reaching around 50,000 employees.

Healthcare. Extended reality (XR) tools can make it easier for doctors to examine patient records, such as [MRI scans](#). Extended reality can also be used to help train surgeons, providing them with the ability to train on three-dimensional images. Other applications in medical science enable researchers to [visualize](#) complex molecules and simulate chemical reactions.

Industrial applications. Microsoft also provides industrial applications for the metaverse. The company [partnered](#) with Kawasaki to integrate its HoloLens headset into Kawasaki's robot manufacturing process. The headset shows a "digital twin" of the workspace, which can speed up processes such as repairs, and start new manufacturing lines. Another [partnership](#) between Siemens and Nvidia deploys XR and AI (artificial intelligence) for industrial applications.

Commerce. The metaverse can improve the [user experience](#) of online shopping by helping consumers visualize clothing and "try on" shoes, accessories, and cosmetics. It also allows them to visualize an object from all angles before buying it. Some products exist only in their digital form, to enhance the experience of being in the metaverse. Even the digital versions of common consumer items are sometimes sold as [NFTs](#).

Financial services. Many financial products and services are found in the metaverse, including cryptocurrency. Recently, Coinbase Wallet was [integrated](#) into The Sandbox and Decentraland, two metaverse platforms that open up a range of opportunities for using cryptocurrency. Banks and fintechs are also entering the metaverse, as they increasingly expect customers will use AR/VR as an [alternative channel](#) for transactions. [New businesses](#) are also emerging to process transactions in the metaverse.

Architecture and design. This is a [growing sector](#) in the metaverse, as leading firms are increasingly creating spaces that users can explore. These spaces are unbound from any real-world limitations, such as physics, location, or construction costs. Companies such as [Matterport](#) build virtual reconstructions of real-world environments.

Home renovations. [Lowe's](#) provides a metaverse tool that helps users visualize home renovation projects. It includes 500 digital assets (such as furniture and home decor) for free, anticipating that online activity will be converted into purchases of physical items.

Beyond the examples listed above, the metaverse represents a new opportunity to expand your customer base, create new partnerships, and build your brand identity. You can develop and distribute new services, or new versions of existing services, by connecting your physical presence with your digital one. The more popular the metaverse becomes, the more essential this connection will be to your business growth.



Layers of technology support—and value creation

The metaverse [draws](#) on many different technologies, such as VR platforms, machine learning, blockchain, 3D graphics, and sensors. At a high level, the [hardware](#) required to participate in the metaverse must do three things:

1. Scanning

Sensors and cameras are needed to detect and capture signals from physical space. The price of scanning technology has gone down significantly in recent years; however, it is still comparatively expensive to produce 3D imagery.

2. Rendering

This is the process of generating an image through a computer program. Software is used for this purpose, including AI and machine learning for larger datasets.

3. Displaying

This is the image seen by the end user. Display is reportedly the most challenging hardware component of the metaverse. Definition, perspective, lighting, colors, textures, and frame rates are all important.

Overall, visuals are an essential component of the metaverse experience, so the enabling technology represents one of the biggest business opportunities, particularly as there are just

a handful of companies producing VR headsets. As noted by the [World Economic Forum](#), more than 80% of the VR headset market was controlled by four companies in 2019.

More recently, the Japanese company [Sharp](#) entered the VR headset segment, and [Apple](#) announced its intention to do the same (though there is no specific release date yet). Apple's headset is rumored to feature two 4K micro-OLED displays, 15 camera modules, powerful processors equivalent to the M-series chips, eye tracking capabilities, hand gesture support, and spatial audio.

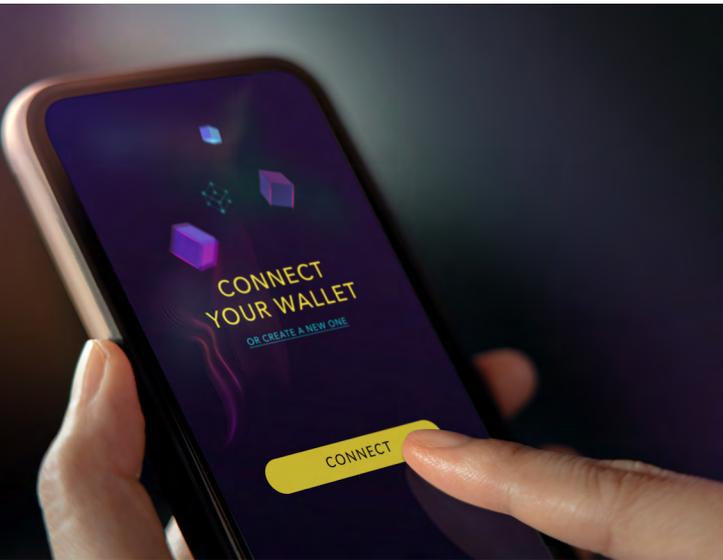
Google is also developing a 3D chat booth called Starline, which allows users to see each a 3D version of their interlocutor. The project is still at an [experimental](#) stage, and there is no indication of when (or whether) it will be commercialized.

Other options for participating in the metaverse include Google Glass and Snap Spectacles, but these devices have had [mixed success](#) due to cost, limited functionalities, and privacy concerns.

Also of note, [Meta](#) is developing haptic (touch) gloves for the metaverse. These gloves let users feel VR objects using air pockets, and they also act as VR controllers. Meta has been developing the technology for several years, and the glove is currently at the prototype stage.

Approaches to monetization

ALONGSIDE THE DEVELOPMENT OF NEW PRODUCTS, SERVICES, AND ENABLING TECHNOLOGY ARE DISCUSSIONS ABOUT HOW TO MONETIZE THE METAVERSE. SHOULD THIS BE A SPACE FOR MICRO-TRANSACTIONS, SUBSCRIPTIONS, ADVERTISING, PARTNERSHIPS, OR ANY COMBINATION OF THE SAME?



So far, it seems all four approaches are common on existing metaverse platforms.

- **Second Life's** in-game currency is called Linden, or [Linden Dollars](#). Real currency can be converted into in-game currency, and there are businesses and content creators that earn Linden Dollars through the game. The average transaction size on Second Life is \$2. There are two [subscription options](#), Premium and Premium Plus. The game maker Linden Labs also makes money through a [commission](#) on items sold on the Second Life marketplace. There are many ways to [advertise](#) on Second Life, from simply maintaining a presence in the game to building distributed advertising systems.
- **Roblox** players can convert money into the in-game currency [Robux](#) to make in-game purchases of accessories, outfits, "skins," etc. Users can also [purchase](#) Robux through the Roblox Premium subscription. The third way

Roblox makes money is through commissions charged by developers and creators. Users can also make their own [advertising](#) to promote an experience, group, or accessory.

- **Fortnite's** in-game currency is called V-bucks, but there are also tickets, upgrade points, and gold bars that [count](#) as currency. According to [Investopedia](#), Fortnite's revenue comes entirely from micro-transactions, because it is otherwise free to play. However, the game is also known for having many branded [advertisements](#). It also has a subscription option, called [Fortnite Crew](#), and a creator incentive program called [Support-A-Creator](#).
- **Minecraft** likewise has its own currency, called Minecoins, but [other items](#) can be exchanged as currency as well. The game features several "[pricing plans](#)," which include some regular subscriptions. It seems the top advertising opportunity is to promote a Minecraft [server](#). There are [commission](#) opportunities for Minecraft skins, but it seems these aren't very common.
- **Old School RuneScape** is another popular MMORPG (massively multiplayer online role-playing game). It is [estimated](#) to have a total player base of 35,560,615. The in-game currency is simply referred to as "[gold](#)." The game's [Premier Club](#) is akin to a yearly subscription. It seems there isn't any advertising within the game. It used to include commission stakes, but the practice has been [largely banned](#) since [2017](#).
- **Horizon Worlds** is comparatively new, and smaller, but the game reached [300,000 users](#) in February 2022. Meta has plans to launch a currency that is still informally known as "[Zuck bucks](#)." Meta also announced a [\\$10 million](#) creator fund, which will incentivize independent content creation, and the company plans to invest [\\$1 billion](#) by the end of 2022. There is currently no advertising on Horizon Worlds, other than the Wendy's-themed "[Wendyverse](#)."

Gartner predicts that **25% of people** will spend at least one hour per day within the metaverse by 2026.

Some of the games listed above have grown so large that they effectively created new economies. Playing games to collect currency has sometimes grown more profitable than paid employment, particularly in countries facing extreme economic circumstances, such as hyperinflation or sanctions, or deep poverty. There are multiple accounts of in-game “gold farming” from China, going as far back as [2006-2007](#), where some workers would play online games for 12 hours per day to collect in-game currency.

As another [example](#), an estimated 1.8 million Venezuelans became “gold farmers” in Old School RuneScape once the in-game currency became more stable and more readily accessible than the bolivar. Such were their numbers, and such was the scale of gold farming, that it produced the currency inflation *within the game itself*. Sometimes these in-game economic forces can grow and create new risks for the game developers that require careful remediation.

As a more recent [example](#), Fortnite and Roblox’s in-game currencies became both more valuable than the Russian ruble in March 2022. Due to economic sanctions and the effects of the Ukraine war, the Russian ruble is worth less than 1 cent in U.S. dollars, whereas V-bucks and Robux are worth 1 cent. Many other currencies are worth far less than the U.S. dollar, and even less than certain in-game currencies, but the Russian ruble received media coverage to [highlight](#) just how hard sanctions were hitting Russia’s economy, and just how successful Fortnite and Roblox have become.

Advertising seems to be the most [contentious](#) aspect of plans to monetize the metaverse. The founder of Second Life warned that virtual platforms shouldn’t use VR data (such as body and eye movements) for advertising purposes because this could cause harm to the users. At the same time, advertising already seems to be common in the metaverse, and the risk of harm may be difficult to quantify. There is also an [argument](#) that making the metaverse available for free, at scale, requires advertising.

There are signs showing that advertising in the metaverse is highly effective, based on [industry feedback](#) and [studies](#), while [Gartner](#) predicts that 25% of people will spend at least one hour per day within the metaverse by 2026. Platform providers may find it more appealing to switch to advertising as their primary revenue source, but this depends on the evolution of data privacy and security laws in the U.S. and other leading markets.

For now, it appears to be easier to protect users’ privacy and personal information where the main method of payment is micro-transactions or subscriptions. If privacy legislation prohibits the online collection and use of biometric information collected through VR headsets, micro-transactions may retain their status as the primary revenue source in the metaverse.

Implications of the metaverse

BEING A NEW MARKET, THE METAVERSE RAISES MANY QUESTIONS ABOUT WHAT COMPANIES AND INDIVIDUAL USERS CAN DO. IT ALSO RAISES POLITICAL AND SOCIAL CONSIDERATIONS THAT ARE RELATED TO HOW USERS INTERACT—OR SHOULD INTERACT—ONLINE WHILE PRESERVING THE METAVERSE’S STATUS AS A SELF-MODERATED SPACE. THESE IMPLICATIONS CAN BE GROUPED IN THREE CATEGORIES: SOCIAL, ECONOMIC, AND LEGAL.

Social implications

Changing work. Certain platforms in the metaverse can be used as labor-saving technology. For example, a digital double of the UBS chief economist, called “[Daniel](#),” can provide personalized financial advice to multiple clients at once. This has the potential to increase productivity in new ways. If digital humans are capable of displacing work, there are also immediate social, economic, and political implications for the workers affected.

Social norms. Another implication to consider is changing social norms among digital avatars. If individuals become more disinhibited when they interact with others in their digital form, or with digital humans, what does this mean for how they will treat others in person? There is no data on this point, but there are [reports](#) of gender-based [harassment](#) on the metaverse. Without enforceable anti-harassment policies, companies (especially platforms) face both legal and reputational risks. Meta [introduced](#) a “personal boundary” feature that creates a small barrier around an avatar to protect users’ safety. The company also issued [parental supervision tools](#) that let parents restrict their teens’ access to content they deem inappropriate.

Social exclusion. The worlds of cryptocurrency, decentralized finance, Web3, and the metaverse are still mostly [male](#), and mostly [white](#). Beyond its social implications, this is an economic problem that could hinder the metaverse’s growth. There are signs of improvement, however, as younger Black and Hispanic adults report being more interested in the metaverse than younger white adults, based on a [Morning Consult](#) survey. Men are still more interested in the metaverse than women, at 46% and 28% respectively. As for the general population, 36% of Americans reported being interested in the metaverse in March 2022, up from 32% in November 2021.

Lifestyle. Part of the appeal of the metaverse is accessing experiences that aren’t available in the physical space, or making digital interactions more fun, engaging, and effective (as with employee onboarding, for example). This was especially important during the beginning of the pandemic, when many people were isolating and working remotely.

Economic implications

Volatility. From the beginning, there has been a close association between cryptocurrency and the metaverse. Meta made significant investments in a cryptocurrency venture called Diem, but [abandoned](#) it in January 2022. Meta also abandoned its crypto-wallet venture called Novi and will retire the service in September, amid what [Bloomberg](#) dubbed a “crypto winter.” The longer this uncertainty lasts, the more likely it is that the metaverse’s development will no longer be correlated with cryptocurrencies. On the other hand, Meta’s withdrawal creates opportunities for other companies to innovate, if this is merely a temporary dip in the cryptocurrency market.

Bubbles. Somnium Space’s founder and CEO [noted](#) that interest in virtual real estate has grown, but cautioned that “most people do not yet fully understand the real use-case of those plots.” He suggested that “real monetary value should only be attached to virtual goods that provide real utility for their owners, otherwise there is a huge risk of creating a speculative bubble that will hurt consumers and companies.” The [challenge](#), for investors, is to assign value to a space where scarcity is artificial. To the extent that virtual real estate replicates real physical spaces (such as New York, Paris, etc.), scarcity already exists, and the valuations increasingly reflect this.



Legal implications

Data privacy. The tracking and misuse of personal data is the top concern identified by adult respondents to a [Morning Consult](#) poll on the metaverse. Fifty-five percent (55%) of respondents identified it as a “major concern,” followed by online abuse and cyberbullying at 44%. However, content moderation in the metaverse necessarily requires recording conversations, so a [balance](#) must be struck between user privacy and safety.

Concentrated ownership. Distributed autonomous organizations (DAOs) are a [common feature](#) of Web3 and of the metaverse. DAOs are intended to provide a democratic ownership structure, through which any member can vote on organizational decisions based on their ownership stake (i.e., ownership of a governance token). Research by [Chainalysis](#) found that across several major DAOs, less than 1% of all token holders have 90% of the voting power. This concentrated ownership has implications for DAO governance and potentially for antitrust law. It also creates an opportunity for improvement to achieve a more democratic version of corporate governance while still incentivizing growth.

IP infringement. The infringement of intellectual property became a [growing concern](#) in the NFT market, leading to a various enterprise-scale solutions to combat this problem. [OpSec Security](#) provides a service designed to help brand owners detect and enforce IP against unauthorized usage of brand names or likenesses in NFTs. [OpenSea](#) also rolled out a filter that blocks suspicious NFT activity. These market solutions help reduce the legal risks of operating in the metaverse and can support business confidence as investment in the metaverse grows.

Branded IP collaborations. [IP mashups](#) represent a growing opportunity in the metaverse. Joint promotions are a popular way to increase brand awareness among younger adults. Mashups are happening because branded assets are coded into games, and players can sometimes mix up these assets however they like. For example, Fortnite users can choose to play as LeBron James, Marvel’s Thanos, DC’s Batman, or many other real or fictional characters. Overall, companies are increasingly using their IP in creative ways, and aren’t limiting their marketing efforts to the brands they already own.

Taxation. There is some uncertainty around the tax rules applicable to NFTs. From one perspective, they may be [considered](#) as collectibles, which carry a 28% top federal tax rate on long-term capital gains. This is significantly higher than the top rate applicable to returns on stocks, bonds, and cryptocurrencies (which is 20%). Uncertainty on the tax status of NFTs could potentially have [contributed](#) to the chill in the NFT market. This is an area to follow, both in the U.S. and internationally, as taxation rules are changing quickly.

Emerging standards and best practices

As mentioned, the metaverse is a largely self-moderated space, but this is subject to each platform’s terms of use and community rules. Rules on standards of behavior vary from one platform to another, which means there may be different approaches to tracking user interactions and enforcing rules on user conduct. Some tech companies, such as Meta and Microsoft, recently [formed](#) the Metaverse Standards Forum, but it appears the Forum’s immediate priority is interoperability.

At the same time, public law continues to apply in the background to protect people and their property. This includes criminal law. For example, theft is theft, whether it takes place in the metaverse or elsewhere. There are also specific offenses in the U.S. against online harassment and bullying, which would conceivably apply to the metaverse, though there are questions related to extraterritorial application, standard-setting, and potentially a content ratings system.

During a meeting of the World Economic Forum, the United Arab Emirates’ minister of state for artificial intelligence [suggested](#) the United Nation’s International Telecommunication Union could set international safety standards for the metaverse, which would apply regardless of where the users live. These would mirror common standards on the internet, which apply to crimes such as drug trafficking and child pornography.

In the U.S., lawmakers appear to be especially concerned about the protection of children on the metaverse. Although no specific regulatory proposal has been presented yet, some representatives have [urged](#) the FTC to monitor threats to children on the metaverse.

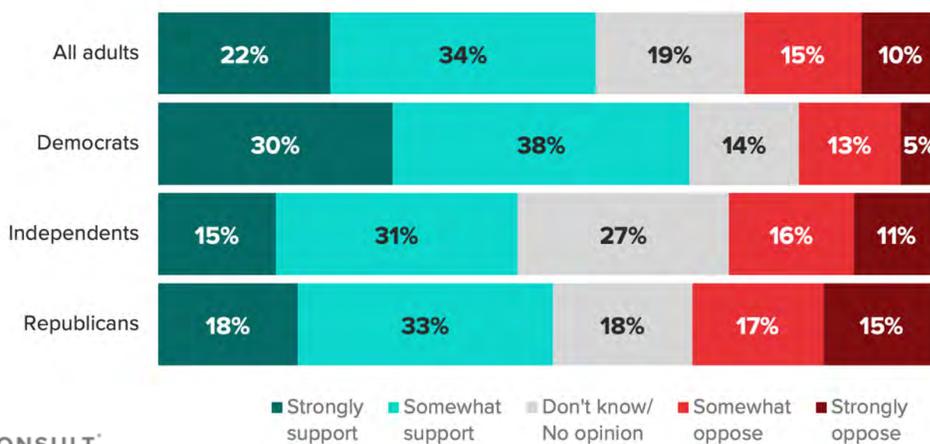
As a potential barrier to regulation, there is a lack of consensus among the general public on how, or whether, social media should be regulated, based on [polling data](#). Half of U.S. adults support the regulation of social media companies, with notable partisan differences among those who “strongly support” or “strongly oppose” the concept. It’s possible the same outlook would apply to the metaverse.

Despite this challenge, there is some potential for bipartisan consensus, based on a more detailed breakdown of polling results:

More Than Half of Adults Favor Government Regulation of Social Media

Respondents were asked if they supported government regulation of social media

Democrats are 17 percentage points more likely than Republicans to support government regulation of social media companies



MORNING CONSULT

Poll conducted Dec. 3-7, 2021, among U.S. adults with a margin of error of +/- 2%. Figures may not add up to 100% due to rounding.

Considering there are already standards (whether national, or international) on what constitutes a crime on the internet, there is an opportunity to establish a bipartisan consensus that the same rules are needed in the metaverse. This could make users feel safer, and more willing to participate in new online experiences.

What your business should know

How Benesch can boost your metaverse business

The metaverse provides an exciting opportunity to bring together many forms of technological innovation, and to offer experiences that wouldn't otherwise exist. We're here to help companies operating at the intersection of blockchains, gaming, and the metaverse, and we think it's a fascinating time to be online.

As we've said before, we think the metaverse is the next iteration of the commercial internet, because the development of the metaverse is mirroring that of the internet in that of the late 1990s and early 2000s. Websites at the time were rudimentary, but now, the internet is an essential part of how many businesses reach their consumers. We expect the metaverse to be just as important.

We put your business's needs first—our clients can call on expertise from multiple fields, from professionals who will work together to help you achieve your goals. Some of our capabilities are noted here.

Innovations, Information Technology & Intellectual Property (3iP)

[Benesch's 3iP practice](#) includes a multidisciplinary team that can help metaverse start-ups and established companies navigate the risks and opportunities of this new market. Whether you're a content developer or technological innovator, and whether you're a new entrant or an incumbent, we understand how emerging trends are shaping your industry.

Our team can help you set up legal entities in the metaverse while maintaining your IP, including copyrights, trademarks, and patents. We have expertise in content licensing, as well as data protection and security, and transactions performed through contracts and smart contracts/blockchain. To complement your business growth, we also perform systems operation deals, and mergers and acquisitions in the technology industry.



Within our 3iP team, there are practices dedicated to:

- Blockchain & Smart Contracts
- Data Privacy and Security
- E-Commerce
- Fintech
- Healthcare Tech
- Additive Manufacturing
- Intellectual Property Protection and Enforcement

Benesch is already supporting businesses in the metaverse

As examples of our work, we represented a leading U.S.-based blockchain company that developed applications that connect the physical world and the digital world. We also represented one of the preeminent global technology companies in VR/AR as it developed technology in support of social networking and business transactions in the metaverse. Another client is a nationally known digital architecture firm that developed cutting-edge technology to create spaces in the metaverse.

We can assist

Ours is a diversified practice, reflecting the wide range of businesses in the metaverse. This is also a fast-changing space, where new investments are announced daily, and the number of opportunities continues to grow. We're here to help your business gain a competitive advantage and be at the forefront of technological innovation in the U.S. and internationally.

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