

mobiquity

part of HEXAWARE

# A global benchmark for sustainable banking 2022

METaverse | WEB3.0



September 2022



## OVERVIEW

# Table of contents

---

### CHAPTER 1

Foreword: Jieke Pan, VP Engineering and CTO, Mobiquity 3

---

### CHAPTER 2

Literature Review: Adi Gaskell, Forbes Contributor 4

---

### CHAPTER 3

Infographic of main findings 6

---

### CHAPTER 4

Conclusions 12

---

### CHAPTER 5

Recommendations 13

---

### CHAPTER 6

Expert view: Lionell Schuring,  
VP & Chief Creative Officer, Mobiquity 14

---

### CHAPTER 7

Methodology 15

---

### CONTACT

Get in touch 16

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## CHAPTER 1

# Foreword

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**Jieke Pan,**  
VP Engineering and CTO, Mobiquity

### “DE-HYPING THE METAVERSE”

The virtual world that metaverse promises and the technology behind it is disrupting all industries, presenting a double-edged sword for banks looking to get a piece of the Meta pie. Whereas the technology itself offers the opportunity for growth and evolution, it's still in its infancy and often overhyped before it's had a chance to grow and mature.

For the financial services sector, banks worldwide are already looking at how they can apply metaverse technology to the everyday banking function, to provide superior customer experiences and support on a virtual level. Everyone is saying that technology is the next big thing and banks need to use it if they want to remain relevant in the financial services world. But these institutions need to instead think about why they're using it in the first place, how it applies and ultimately, adds value to their business and customers.

The crucial tipping point here is whether metaverse will live or die as a concept. Is it going to continue evolving? Will it eventually become Web 5.0? These questions place doubt in the minds of institutions, and the last thing a bank wants to do is place significant investment into an emerging e technology that promises the world, only for it to fail and later, become irrelevant.

The only way metaverse technologies in the banking sector are likely to succeed, is if they become an essential component of the financial services tech stack. The Cloud, for example, has become the standard host and single source of truth for banks' CRM and other systems on a global scale – metaverse may never get to that level of maturity, or grow into that type of critical ecosystem but only time will tell.

Some banks have already made the leap – on a base level – to implementing metaverse technologies, but it's often been used as a ploy to capture the market's attention. Immersive VR technology has been around for years, and adoption has remained steady in order to properly evaluate its practical applications within the financial services sector. However, the introduction of Facebook's Metaverse in 2021 has resulted in a significant boom surrounding VR tech over the last 6+ months. A key takeaway for banks considering using metaverse for day-to-day operations before jumping onto the hype, is to think about the business case first.

Our report provides a benchmark for banks in their sentiment towards metaverse and its adoption.

## CHAPTER 2

# Literature review

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**Adi Gaskell,**  
Forbes Contributor

For much of the past few years, if there was a focus on a Web 3.0 technology, it was probably blockchain, with cryptocurrency investments booming and technologies like NFTs promising to transform everything from real estate to art. That changed in 2021 when Facebook rebranded as Meta and pivoted its focus towards the Metaverse.

This shifted our Web 3.0 gaze onto a technology that had largely fallen by the wayside since platforms like Second Life failed to take off. It was an opportune shift as it emerged at a time when Bitcoin, and other cryptocurrencies, reached their peak and started a dramatic fall in value during the first half of 2022.

Defining precisely what metaverse is, however, is likely to elicit as wide a range of answers as if you asked someone what the internet was a generation ago. Indeed a quick Google search for “what is the Metaverse?” is likely to confuse as much as it is to inform. This is in part due to the fact that people are often trying to define something that hasn’t really been fully realised yet.

Nonetheless, in *Navigating the Metaverse*, UC Berkeley’s Tommaso di Bartolo provides a good basis from which to start, when he defines the Metaverse as:

“The Metaverse is the next generation of consumer engagement: An immersive experience with a self-sustaining, community-driven economy at its centre. It’s a new digital reality for consumers empowering joint value creation: To build empathy with brands by becoming part of the product, rather than being the target of advertising.”

### HONING IN ON SPECIFICS

As [researchers](#) from ETH Zurich illustrate, however, much as this definition is a useful starting point, our ability to truly assess any innovation is greatly helped by our ability to assess some tangible use cases. The researchers found that a rigorous “use case” approach that is underpinned by straightforward questions, such as whether the technology would allow firms to be more efficient or would add a layer of complexity, would help managers to understand whether the technology would address real problems or be window dressing.

There are various examples of banks and other financial service companies enthusiastically testing out metaverse to help flesh out some of its possibilities. For instance, JP Morgan proudly [announced](#) that they were the first bank to have a presence in metaverse. The so-called Onyx lounge was unveiled alongside a report outlining how businesses can take advantage of what metaverse has to offer. Given the early nature of the technology, the initiative is designed as much to highlight where we currently are while also demonstrating what needs to come next, whether in terms of privacy, technology, or commercial infrastructure.

“We are not here to suggest the Metaverse, as we know it today, will take over all human interactions, but rather, to explore the many exciting opportunities it presents for consumers and brands alike,” the company says in the accompanying paper.

## VIRTUAL APPLICATIONS

Bank of America is taking a slightly more specific approach to its deployment metaverse technologies. The company [announced](#) at the back end of 2021 that it will be rolling out a virtual reality platform to help train staff. The VR-based training has been rolled out in around 4,300 financial centres across the United States with the aim of providing over 50,000 employees with a platform to practice a wide range of simulated client interactions.

“VR is highly effective at helping teammates build and retain new skills and it is one of many ways we are using technology to support internal mobility and provide best-in-class learning opportunities,” the company explains.

Meanwhile, BNP Paribas has taken a different approach. The company has long been dabbling in [VR-based services](#), but their first real foray into Web 3.0 and metaverse has come via what they refer to as W.I.R.E.D. (Wearable Immersive Real Estate Dataroom).

This is a digital twin project that aims to provide a realistic simulation of a city, with this allowing the company to then look at the past, the present, and the future of the city and provide a truly virtual immersion into the way the city evolves. For instance, W.I.R.E.D. will allow users to explore various European neighbourhoods complete with qualified data for each property.

“The transaction business is changing; technology is supporting the transformation and W.I.R.E.D. is a perfect example. This immersive tool will allow us to better respond to our clients’ questions and needs,” [explains](#) Eric Siesse, Deputy General Manager of BNP Paribas Real Estate Transaction.

HSBC has made an [initial foray](#) into metaverse via The Sandbox virtual community. The financial services firm has bought a plot of virtual real estate in The Sandbox that the company will use to engage with users on the platform. The company believes that the Metaverse will be the primary way by which users will experience Web 3.0, and this, therefore, opens up a wide range of opportunities to create new experiences with customers. HSBC is joining over 200 other companies across various other industries that have already launched on the platform.

Of course, it’s not just the big names that are dabbling in metaverse. For instance, Zelf is developing a banking system to facilitate the exchange of goods and services from virtual worlds into the real world. The service builds on existing offerings of embedded banking within various messenger apps. Or you have Tintra, which is [developing](#) the first bank specifically designed for metaverse.

These are just a few examples of what Goldman Sachs [argue](#) is an \$8 trillion opportunity as the digital economy grows from 20-25% of the global economy today to even greater proportions in the years ahead.

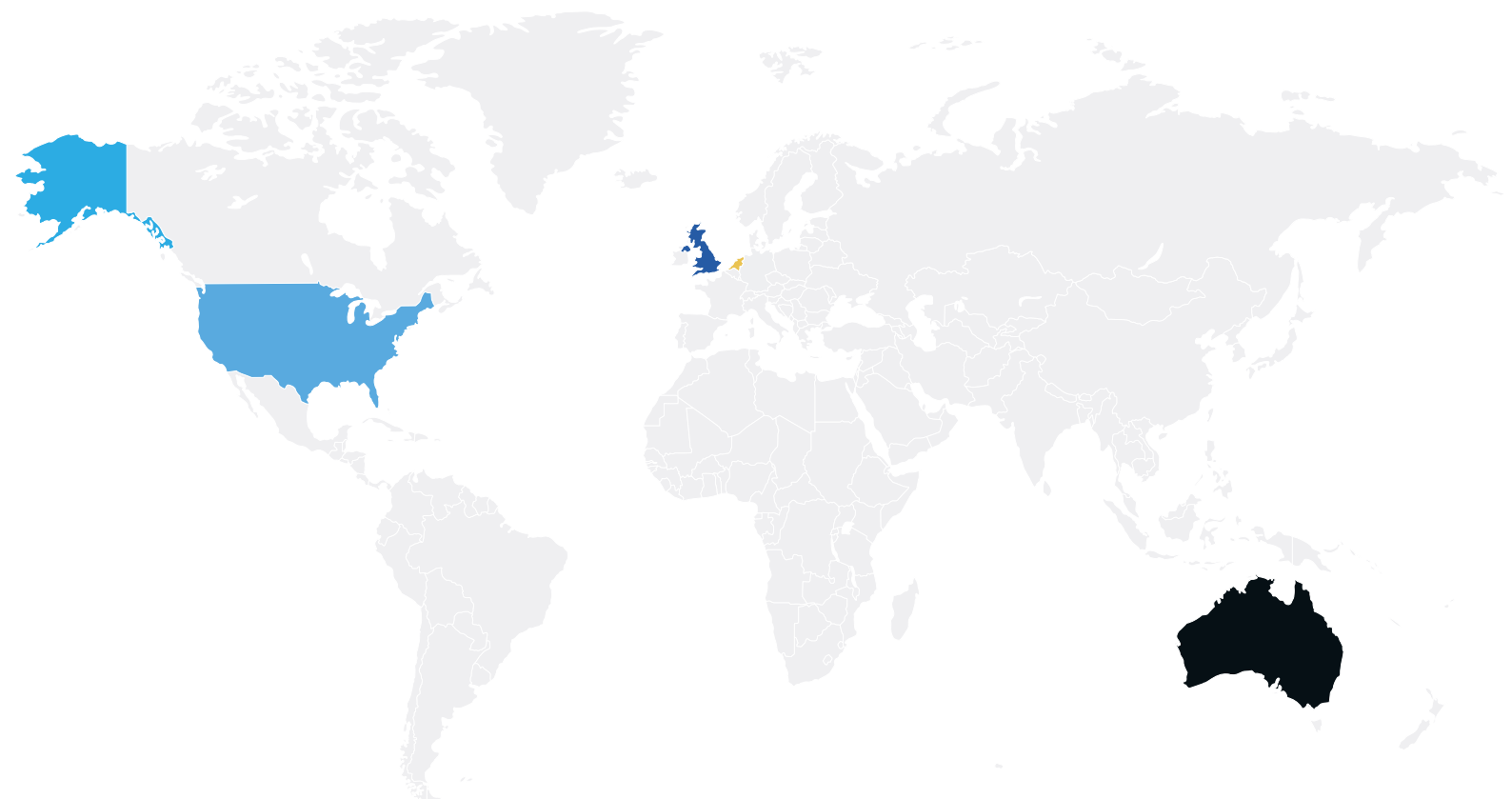
## CHALLENGES TO OVERCOME

This level of optimism should not cloud us to the very real challenges ahead, however, not least of which revolve around the energy footprint of metaverse. For instance, [research](#) from Carnegie Mellon University shows that training a standard natural language processing (NLP) model produces an estimated 626,155 lbs of carbon dioxide emissions, which is roughly 5 times that produced by a car over its lifetime.

Metaverse is likely to have a similar impact on energy consumption. For instance, computing giant Intel recently [argued](#) that the technology will require around 1,000 times more computing power to function effectively. There are clear plans afoot to try and make this footprint as small as possible, however.

For instance, Meta recently [secured](#) 100% renewable energy status, while Microsoft has [pledged](#) to ensure Azure is likewise by 2025. The technology will also shift activities out of the real world, which might also reduce our carbon footprint. For instance, [research](#) from the University of Texas finds that virtual conferences are generally more environmentally friendly than physical conferences, with the researchers calculating that a single in-person event generates about as many emissions as 7,000 virtual events.

Most of the early investments in metaverse are still at an experimental stage, but what does appear clear is that if they are to take off then they will need to show to consumers that they are sustainable as well as user-friendly.

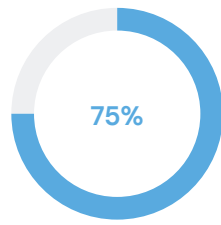


Mobiquity surveyed 602 C-suite banking executives across the **United States**, **United Kingdom**, the **Netherlands**, and **Australia**.

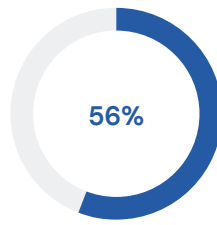
## Banks engaging with Metaverse technologies

Currently engaging with and investing in technologies such as virtual reality (VR) and augmented reality (AR) in preparation for entering metaverse.

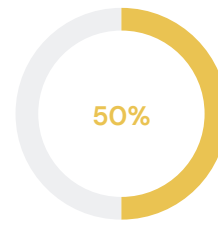
More than half of banks across all regions are investing in technologies for metaverse, with three-quarters of US banks leading the industry.



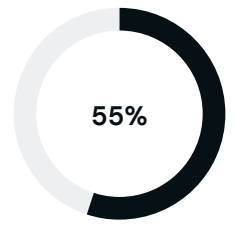
United States



United Kingdom



Netherlands



Australia

## Percentage of banks who agree

Trends in the UK, US and the Netherlands show that large banks engage with metaverse the most. The lowest reporting of engagement is in UK SMEs with just over 1 in 10 (13%) actively engaging. Australia is the only country in the regions assessed where SMEs are outperforming larger banks in using metaverse technologies.

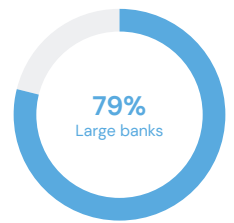
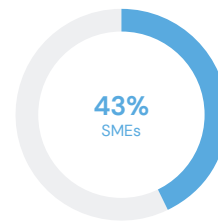
### SMEs:

1-250 employees

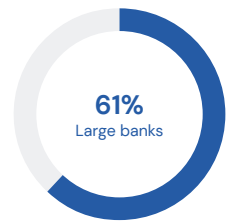
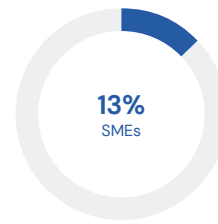
### Large banks:

251+ employees

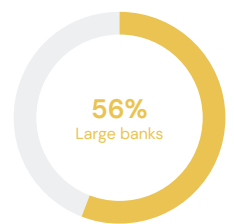
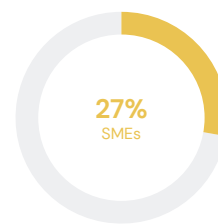
## United States



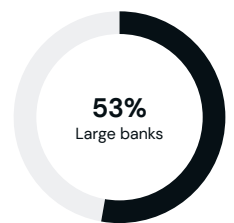
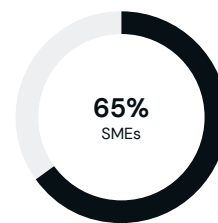
## United Kingdom



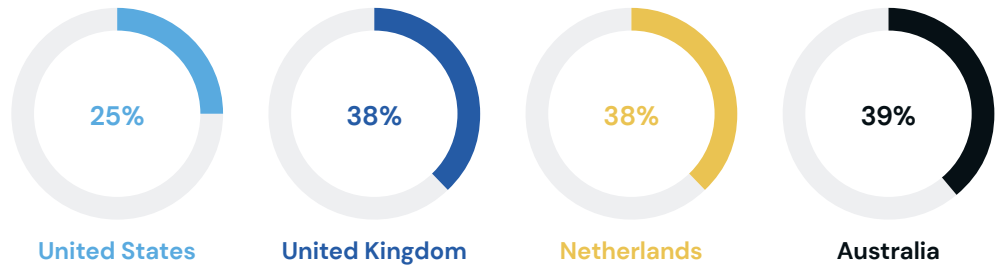
## Netherlands



## Australia



## Banks planning for Metaverse technologies



## Percentage of banks who agree

For UK and US banks, SMEs are planning but not yet implementing metaverse technologies while larger banks have already begun to act. For banks in the Netherlands and Australia, it is the larger ones that are planning but have not yet acted. Suggesting that smaller banks may find it easier to update their technological infrastructure with greater flexibility.

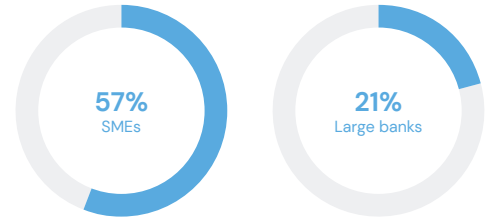
### SMEs:

1-250 employees

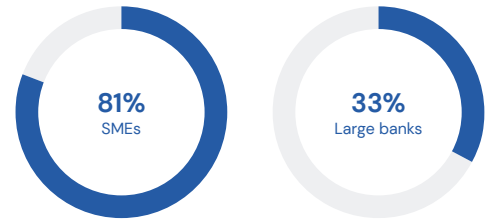
### Large banks:

251+ employees

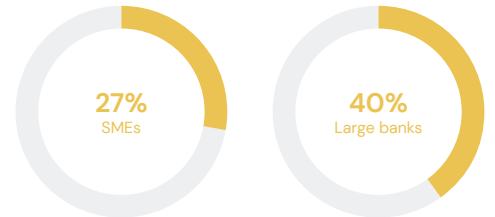
## United States



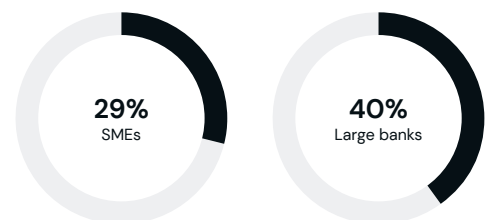
## United Kingdom



## Netherlands

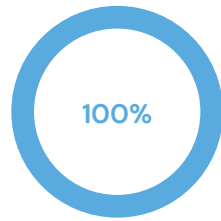


## Australia

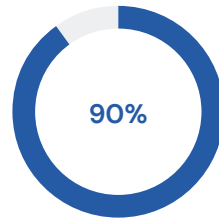




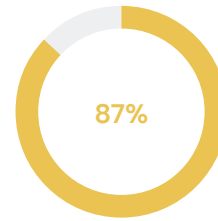
**Banks holding the belief that Metaverse will be an important tool in helping customers engage virtually with banks and lower their carbon footprint**



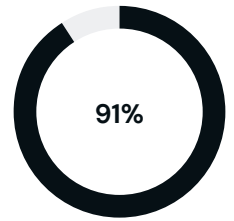
United States



United Kingdom



Netherlands



Australia

**Percentage of banks who agree**

Both large and small banks in the United States agree unanimously that metaverse will be an important means of tackling climate change. Many banks in the UK and Australia support this statement too.

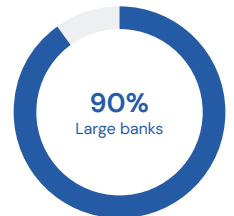
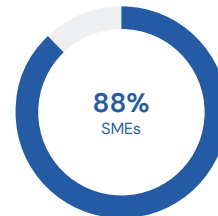
**SMEs:**  
1-250 employees

**Large banks:**  
251+ employees

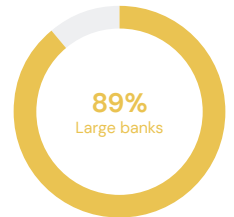
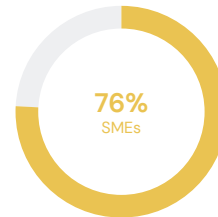
**United States**



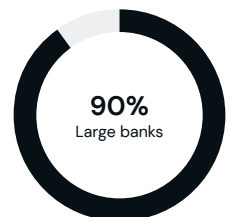
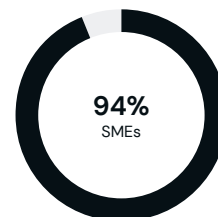
**United Kingdom**



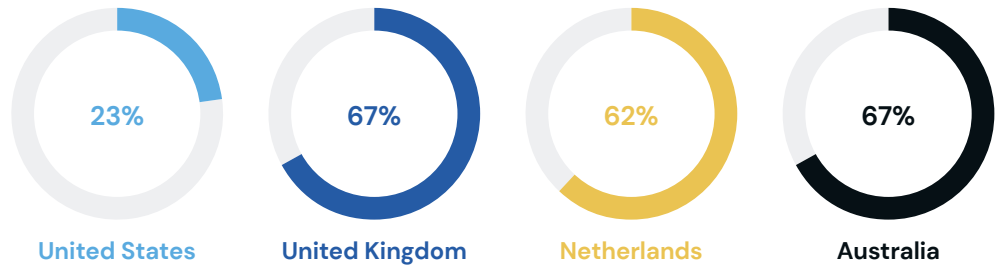
**Netherlands**



**Australia**



**Banks holding the belief that the energy needed to power Metaverse will have negative consequences on our carbon footprint**



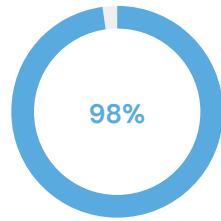
**Percentage of banks who agree**

SME banks across the UK, United States and Australia express concern that metaverse could negatively impact their carbon footprint. In the Netherlands, large banks are the most concerned.

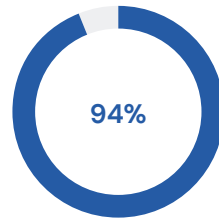
- SMEs:**  
1-250 employees
- Large banks:**  
251+ employees



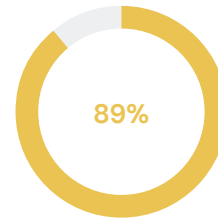
## Banks planning to address the environmental impact of Metaverse's energy needs



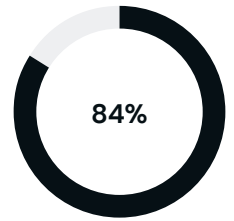
United States



United Kingdom



Netherlands



Australia

## Percentage of banks who agree

All banks, irrespective of size and region, predominantly aim to address the energy needs of metaverse and its environmental impact. Banks in the US plan to address the environmental impact of metaverse the most (98%), followed by the UK (94%), the Netherlands (89%) and Australia (84%).

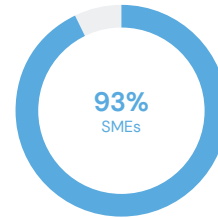
### SMEs:

1-250 employees

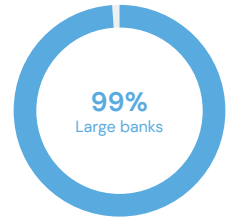
### Large banks:

251+ employees

## United States

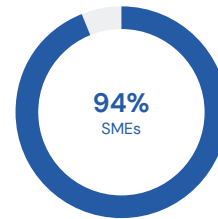


93%  
SMEs

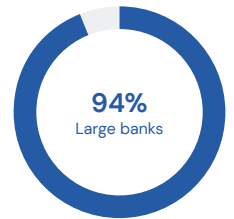


99%  
Large banks

## United Kingdom

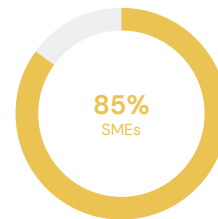


94%  
SMEs

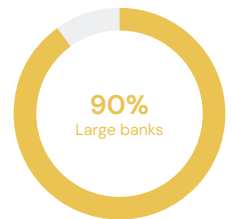


94%  
Large banks

## Netherlands

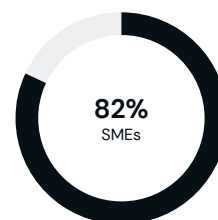


85%  
SMEs

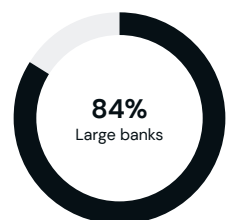


90%  
Large banks

## Australia



82%  
SMEs



84%  
Large banks

### Investing in metaverse

The Mobiquity report shows that globally, it's the larger financial service institutions that are trying out and applying metaverse technologies to various banking functions. These banks often have significantly more budget when considering new and emerging technologies – innovation by default always happens when there are larger companies involved with more available funds. Furthermore, larger banks often pave the way for other banks and want to be the first ones in from a marketing, branding, and product perspective - especially when innovative new technology is involved.

For SME's however, with less budget and resources to fund new technology ventures, they wait to see how these technologies pan out for larger banks and will likely make their move depending on successful implementation of others. However, that's not to say that smaller banks aren't engaging with Metaverse technology at all. The report findings also suggest that smaller banks are planning to engage with it, they're just not using it yet.

From a regional perspective, smaller banks across the Netherlands and Australia are adopting metaverse technology over larger institutions. This suggests that due to smaller infrastructure, fewer employees, and inevitably a more simple bureaucracy, it's easier for smaller banks to adopt and implement with minimal business disruption.

### Navigating sustainable concerns

Aside from the size and geographical differences of the banks within this study, they all agree that metaverse technology would be a great tool to support the efforts of tackling climate change. If the technology undergoes mass adoption as estimated, it could mean that customers no longer need to visit physical branches and employees no longer need to commute to the office, hence greatly limiting travel emissions on a global scale.

On the flip side, there is still a lot of concern, especially from SME banks across the UK, United States, and Australia, that metaverse could negatively impact their carbon footprint. Metaverse technology requires significant power to run effectively, and the VR technology and data centres alone needed to run the AI and cloud services required consuming significant amounts of power. For banks worldwide, this means that they need to carefully consider the pros and cons of adopting metaverse technologies from a climate change standpoint, especially as their customers are growing more and more sustainability focused.



## CHAPTER 5

# Recommendations

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### Taking a step back to assess the business case

Based on Mobyquity's research findings, most banks are looking at adopting or have already implemented metaverse technology in some shape or form. However, this still brings us back to the business case in question – how is it going to make the lives of the employees, and customers of financial institutions easier and better? The technology is still in its infancy, which means nobody truly knows how and when it will progress into something that's beneficial to those who use and invest in it.

This is one of the critical issues associated with metaverse technology, in that consumers and banks alike, are simply philosophising about what metaverse will and could become. Few financial institutions are choosing to act now or aim to successfully implement on any level within 6 months. Banks and financial corporations, regardless of their size or region, need to adopt a proactive approach. Doing so could mean the difference between standing out from the crowd and being left behind completely. At Mobyquity, the idea is to look at the issues customers are facing now, and how they can be alleviated effectively and efficiently, whether that's through using metaverse technology or not.

Banks shouldn't implement metaverse technology for implementation's sake just because it's shiny and new – it needs a purpose. Banks need to ask themselves if there's a necessity for the technology to solve a specific challenge to create a positive impact or improve existing systems.

### Sustainable benefits of metaverse

Our research shows that financial institutions are still very concerned about how metaverse technology will impact their bank from a sustainability angle. This is something that all banks will have to carefully consider when it comes to implementing it. But banks must remember to weigh the pros against the cons. On one hand, making events, meetings and products virtual provides significant environmental benefits, and on the other, the data-processing power required to run metaverse technology is huge.

As discussed in the recent Mobyquity Sustainability Banking Report, banks need to go beyond simply offsetting their carbon footprints. Metaverse technology could be the answer for financial institutions to not only improve the customer experience, but also to make their bank greener.

## CHAPTER 6

# View from the industry

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**Lionell Schuring,**

VP & Chief Creative Officer, Mobiquity

It's easy to see why so many banks worldwide are on the fence about metaverse technologies, regardless of size and stature. On one hand, it promises to provide an all-encompassing superior experience for customers and employees, and on the other, nobody can truly say what that will entail.

Regardless of the size and region of the banks in our study an overwhelming percentage of banks believe that the technology will enable the industry to provide greater support to customers on a virtual level. Metaverse holds the means to provide the human touch that's currently missing from Web 2.0. Prior to the global pandemic, most meetings were held in person, COVID-19 changed that, and everything went online to platforms like Zoom and Microsoft Teams.

Now that things are starting to get back to normal, there is a crossover of physical and digital experiences, creating frictions in the customer experience. Some people are back in the office, while others are working from their homes. Everyone is experiencing a different reality – something as simple as an unstable internet connection can create a disjointed experience for everyone. Only when metaverse technology can remove this friction and provide everyone in question with the same reality without disturbances, will it be a beneficial experience that can be applied to all industries.

In 1998, a large portion of the population couldn't see the use case for the mobile phone. People didn't want nor need to be contactable 24/7, there was no practical use case in many people's minds. This is the common mindset banks have about metaverse now, unsure of its practical applications.

Before Web 1.0, there were just computers talking to computers: Internetworking. When Web 1.0 was born, that then transitioned into computers providing computer highways – this was where computers were connecting people to information. It wasn't until the introduction of the social internet or Web 2.0 that people started being connected to other people.

The end game for metaverse technologies should be going beyond the hype - shifting the virtual experience from connecting people to other people - and connecting people and places: Web 3.0.



## CHAPTER 7

# Methodology

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The research was conducted by the independent market research company Censuswide, with 602 C-suite banking executives 18+ across the UK, the Netherlands, the US and Australia during 29.04.2022 - 16.05.2022. Censuswide abide by and employ members of the Market Research Society, which is based on the ESOMAR principles.


## CONTACT

### Get in touch



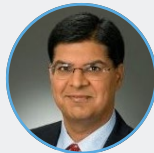
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