Building trusted customer experiences in the metaverse

EY Trusted Metaverse Survey 2023
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Contents

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In brief

- ‣ Many UK businesses (47% of our survey respondents) are venturing into the metaverse, although their early moves appear to be exploratory or designed to pre-empt competitors.

- ‣ Organisations have a lot to do to build trust in the safety and equity of their metaverse applications and experiences. Executives acknowledge this to be the biggest metaverse challenge they currently face.

- ‣ Diversity, equity and inclusion (DE&I) initiatives appear not to be a priority for business leaders as they build metaverse capabilities. They should be.

The metaverse promises to merge our physical and virtual worlds to bring us a powerful, new and immersive experience. Although experts may disagree on how profoundly the metaverse will impact human behaviour, few argue about its potential for disruption. But should businesses press on or wait for evidence that consumers will embrace it?

The EY Trusted Metaverse Survey 2023 suggests that organisations are, indeed, cautious about the metaverse, with most expressing only a limited or moderate interest. Relatively few senior executives expect disruption to their markets or business models soon. However, early movers are intent on forging ahead, with 47% of executives saying they are already investing in capabilities or using metaverse technologies in some way. These executives know they need to gain the trust of users by demonstrating that the new worlds they enter will be safe, welcoming and easy to navigate.

Although organisations are focusing on safety and security, our research suggests that they must do more to build trusted customer experiences in the metaverse: the latter must also be diverse, equitable and inclusive. Worryingly, in response to two hypothetical scenarios, many executives appear to prioritise their organisation's business interests over DE&I.

If organisations fail to build trust in the metaverse, existing social divides could be deepened, reputations could be harmed, and the very business interests that executives appear to be prioritising could be damaged.

If they succeed, however, the use cases pursued by early movers already demonstrate that new opportunities for customer growth and internal transformation can be created.

What is the metaverse?

The metaverse refers to a shared, persistent, three-dimensional virtual realm where people interact with objects, the environment and each other through digital representations of themselves or avatars[1].

It combines several established technologies, such as virtual reality (VR), augmented reality (AR), artificial intelligence (AI) and blockchain, to create wholly virtual environments where users can interact with other users or objects in ways that replicate or expand on real-world experiences.

The building of virtual worlds has historically been the preserve of gaming companies. In recent years, however, businesses, government agencies, research institutions and other types of organisations have begun to build their own metaverses and metaverse experiences – often in partnership with gaming or technology companies.

If metaverse adoption is widespread, it will have implications not just for business growth but also for DE&I, regulation, taxation and sustainability.

[1] Metaverse: 5 questions shaping the next frontier of human experience, EY UK, 14 February 2022.

1 Metaverse intentions

A majority of the 501 executives we surveyed say their organisations have a limited (25%) or moderate (29%) interest in the metaverse. Almost half (47%) are already operating in it or are soon likely to be doing so[2]. And those that have a moderate interest today expect to begin investing in the necessary capabilities in the next one or two years.

However, not every business in the UK is so bullish: to qualify for our survey, respondents had to demonstrate an understanding of the metaverse and awareness of their organisation's strategy, which inevitably creates a positive bias within the sample[3].

According to Laura Henchoz, Associate Partner and Client Technology Markets Leader at EY, many business leaders are wary of excessive hype and want to understand the metaverse and its use cases before deciding whether to invest.

Among those whose organisations have no immediate plans, the main reason is a perceived lack of customer interest and therefore a lack of a clear business case. "However, among businesses where awareness of the metaverse is more developed," says Ms Henchoz, "there is a good deal of positivity about the opportunities it presents."

Figure 1: How would you rate the interest of your organisation's leadership in taking advantage of the metaverse?
(N=501)

Companies' level of interest in investing in the metaverse

We're already using the technology in some way

Limited interest: we may consider this longer term, but it is unlikely in the next 12-24 months

20%

25%

27%

29%
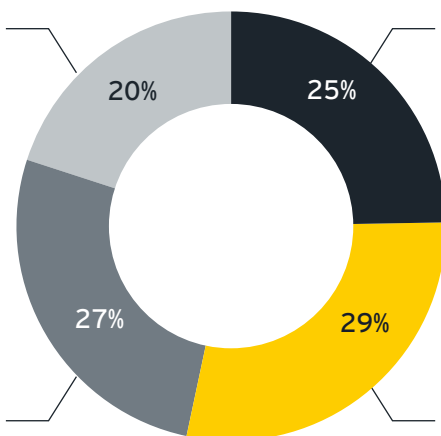
High interest: we're already investing but have not yet gone live

Moderate interest: we're likely to invest in the next 12-24 months

Early metaverse movers

We call the 47% already investing in or active in the metaverse "early movers". These are especially prevalent in four sectors:

▸ Real estate, hospitality and construction

▸ Automotive and transportation

▸ Financial services

▸ Advanced manufacturing and diversified industrial products

[2] The three figures cited exceed 100% due to rounding.
[3] See "About the research" at the end of this report for more about the survey.

47% of organisations are already operating in the metaverse or are soon likely to be doing so.

Early movers by industry

Figure 2: How would you rate the interest of your organisation's leadership in taking advantage of the metaverse? (N=501)

Respondent companies that are already active in the metaverse, or have high interest in it

Real estate, hospitality and construction
56%

Automotive and transportation
53%

Financial services
53%

Advanced manufacturing and diversified industrial products
50%

Health and life sciences
48%

Consumer products and retail
45%

Telecoms, media and entertainment, technology (TMT)
44%

Power and utilities
30%

Government and public sector
28%

Some of these businesses got an early start in building virtual environments during the COVID-19 pandemic lockdowns in the UK and beyond. Real estate firms, for example, had no choice but to conduct property viewings for customers online, using VR[4].

There is considerable metaverse activity in the financial industry, according to Jeeva Moni, Partner for FS Technology Consulting at EY. "Wealth and asset managers are using metaverse technologies to create new touchpoints with high-earning digital native customers," he says, "and banks are starting to use immersive technologies for training purposes."
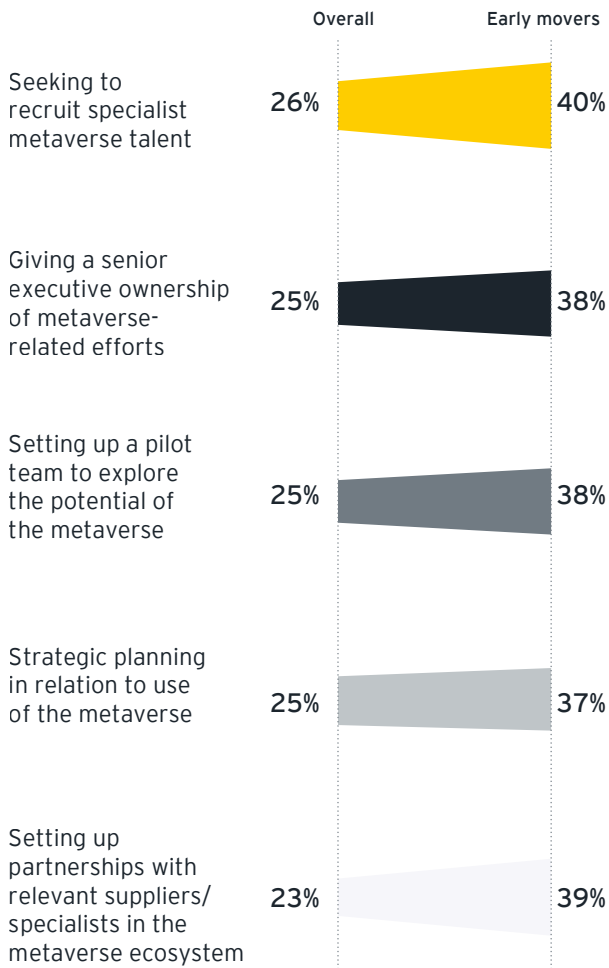
Many early-movers are taking concrete action to prepare for metaverse impacts. For example, 40% are recruiting specialist talent, and 39% are establishing partnerships with suppliers and other parties in the emerging metaverse ecosystem. Almost as many (38%) have assigned a senior executive to lead their metaverse-related efforts or set up pilot teams, and 37% have launched strategic planning.

[4] "Property sales go virtual to work around Covid-19", Financial Times, 10 April 2020.

Organisations taking steps now to prepare for the metaverse

Figure 3: What is your best estimate of when your organisation will take the following actions in relation to the metaverse? Overall (N=501) and In progress or already done (N=235)

In progress or already done

	Overall		Early movers
Seeking to recruit specialist metaverse talent	26%		40%
Giving a senior executive ownership of metaverse-related efforts	25%		38%
Setting up a pilot team to explore the potential of the metaverse	25%		38%
Strategic planning in relation to use of the metaverse	25%		37%
Setting up partnerships with relevant suppliers/specialists in the metaverse ecosystem	23%		39%

Figure 4: To what extent do you believe that the metaverse will disrupt each of the following in the next five years? (N= 501)

### What the metaverse is expected to disrupt in the next five years

Your organisation's overall business model	29%
Your organisation's strategic priorities	28%
Customer service	28%
Sales and marketing	28%
The UK economy as a whole	27%
The competitive environment in which you operate	27%

Why are early movers preparing for the metaverse now?
Sixty-two percent identify the potential competitive advantages, and 55% say they cannot afford to be absent from it even if it is over-hyped.

However, relatively few survey respondents believe that the metaverse will be disruptive soon. And only a minority (22% overall and 25% of early movers) expect their employees or their customers to be using metaverse applications for business purposes regularly within the next two years.

Taken together, our survey suggests that most executives recognise that the metaverse is still some way from achieving its business potential, and challenges remain in securing growth.

However the majority of executives believe the opportunities available are too compelling to ignore.

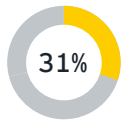# 2 The trust imperative

The most critical attributes to ensuring growth and adoption of metaverse experiences
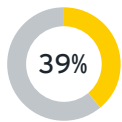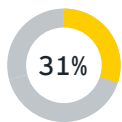
39% **Secure**
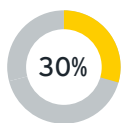(experiences ensure the safety and security of all users to a high level)
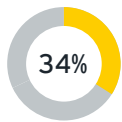
34% **Trusted**
(users can assume their personal data is protected, they are not tracked without consent, etc)

31% **Inclusive**
(experiences are inclusive for all end users, including those with impairments)

31% **Easy to access**
(without points of friction that complicate access to metaverse experiences)

30% **Sustainable**
(experiences provide opportunities to help reduce emissions, not add to them)

Survey respondents are clear about the most important attributes needed to increase adoption of metaverse applications: **security, trust, inclusiveness and accessibility.** The imperative for organisations: build trusted customer experiences. This means that customers must feel safe circulating and transacting in virtual worlds, whatever their personal circumstances; and they must find them easy to navigate. Many executives also expect customers to insist on sustainable solutions.

But trust is the principal challenge that organisations will face as they expand their metaverse presence. Survey respondents rank this above any technology or operational concerns.

"Trust and ethics must be baked into business planning for the metaverse from the outset," says Ms Henchoz. This hasn't necessarily been the case with other emerging technology fields such as AI, and organisations now have a chance to avoid similar omissions in their metaverse development.

What are the key challenges that organisations will face in testing and adopting metaverse applications and experiences in the next 1-2 years? (N=501)

The main challenges organisations will face in ensuring adoption of metaverse experiences

1	Customer distrust of new technology (e.g. worries about new cyber-vulnerabilities, data privacy)
2	Difficulty integrating metaverse applications/technologies with existing/legacy IT
3	Fractured supplier environment, making procurement or platform choices overly complex
=4	Company concerns regarding cybersecurity vulnerabilities
=4	Lack of customer interest/slow customer uptake of metaverse devices
=4	High energy costs attached to metaverse-related applications/experiences

39%
say there is a risk that business interests will trump user rights such as accessibility, diversity and inclusion.

Scenario: Business responses to user complaints about a metaverse issue

Figure 6: In the following scenario, which option do you believe would best describe your organisation's likely approach? (N=501)

Over the course of a month, your team notices the same complaint being logged by 10% of users visiting your metaverse experiences. Which best describes your organisation's likely approach?

45%
Monitor reports and act when a critical mass of complaints is reached that risks financial/reputational damage

22%
Roll out a patchwork fix that doesn't require downtime, but only partially addresses the issue

19%
Ignore the reports. As 90% of users don't see this as a problem, addressing this complaint isn't worth the downtime costs

14%
Take the financial/market share hit needed for the downtime to fully address this complaint and ensure user rights are respected

To build trust, organisations must reassure customers of the security and integrity of their data even as they use these new virtual worlds. Threats to security and data privacy are not unique to the metaverse but they can be amplified by it, says Mira Pijselman, Senior Consultant for Digital Ethics at EY.

"Metaverse hardware and software will likely enable companies to generate and track a lot of fine-grained personal biometric and emotional data," she says. "As a user, I would question the extent to which I could trust that my data is secured, and I'd ask for what purposes it will be used."

Will it be equitable?

The surveyed executives also acknowledge the challenges of ensuring user equity in the metaverse. Thirty-nine percent say there is a risk that business interests will trump user rights such as accessibility, diversity and inclusion. Almost as many (37%) say that ethical considerations could be overlooked as companies compete to build dominant positions.

For example, asked what their organisation would do if, over the course of a month, a substantial proportion of users lodged a complaint about their metaverse experience, just 14% of survey respondents say their organisation would consider taking a financial hit from the downtime needed to fix the issue.

If organisations regularly fail to prioritise user rights, there is a danger that the metaverse could widen existing digital divides in society — and create new ones. Survey respondents acknowledge this concern, with 35% believing that it must be addressed to build trust.

3 A metaverse for everyone

> " The metaverse may shift the way that derogatory, hateful or violent content is experienced.

Mira Pijselman
Senior Consultant for Digital Ethics, EY

In the race to develop and market new technologies, such as AI, their potential for perpetuating or exacerbating existing social ills and injustices can be all too easily overlooked. If the metaverse leads to a widening of existing digital divides, the impact may be felt first among users on low incomes. For example, the cost of headsets, controllers and other equipment needed to access and navigate virtual worlds is likely to exclude all but the wealthiest people, currently.

"There is considerable potential for inequality and discrimination within the metaverse," says Ms Pijselman. "The virtual communities that we construct may perpetuate or reinforce existing inequalities that are damaging to particular groups."

Ms Henchoz gives an example: the sexualisation of avatars and the potential this creates for sexual harassment in virtual worlds. "Many avatars in VR games are created by men," she explains. "It's hard enough dealing with questions about sexuality in the physical world. We must address them with the same sensitivity in the virtual worlds that are coming."

The reality of digital harms in the metaverse

Metaverse environments may be virtual, but real harm can be inflicted within them: reports have emerged, for instance, of sexual harassment, bullying and discrimination experienced by users[5]. Companies need to recognise the potential for bad behaviour in their virtual worlds and be ready to counter it.

Unfortunately, EY's Mira Pijselman fears that the metaverse may add harmful new dimensions to existing situations of digital abuse.

"The metaverse may shift the way that derogatory, hateful or violent content is experienced," she says. "For example, online harms on social media or the internet are typically experienced through a screen, but in the metaverse they will be experienced through more immersive extended-reality technologies. Psychologically, this can have damaging effects on users' wellbeing."

Real-time interaction adds another potentially dangerous dimension. With most forms of messaging, users can control when they respond. In the metaverse, it is different. "The real-time interactivity inherent in metaverse communities means that people could respond immediately with abusive behaviour," says Ms Pijselman. "Including with voice and simulated physical actions." She also points out that real-time interaction makes it difficult for the creators of such environments to moderate them effectively.

There are few ways to prevent this kind of behaviour from occurring in the metaverse, says Ms Pijselman, although codes of conduct and good moderation practices should emerge over time. She does have one suggestion for reducing harms in virtual worlds: hire diverse staff to create them. "If the development environment is representative of the types of users that will actually be engaging with the metaverse, the outcome is less likely to be inequitable."

[5.] See, for example, "Online Abuse in the Metaverse Untangled", World Wide Web Foundation, 23 February 2022.

62%

of respondents say they would launch the new metaverse application on schedule regardless.

Businesses must therefore take steps to ensure that their metaverse experiences meet the highest standards. Nearly two-thirds (65%) of the surveyed executives say their companies recognise the DE&I implications of the metaverse and are actively looking at how to manage these. And 60% insist that the experiences they build will have clear protocols for reporting discriminatory behaviour and how such cases will be handled.
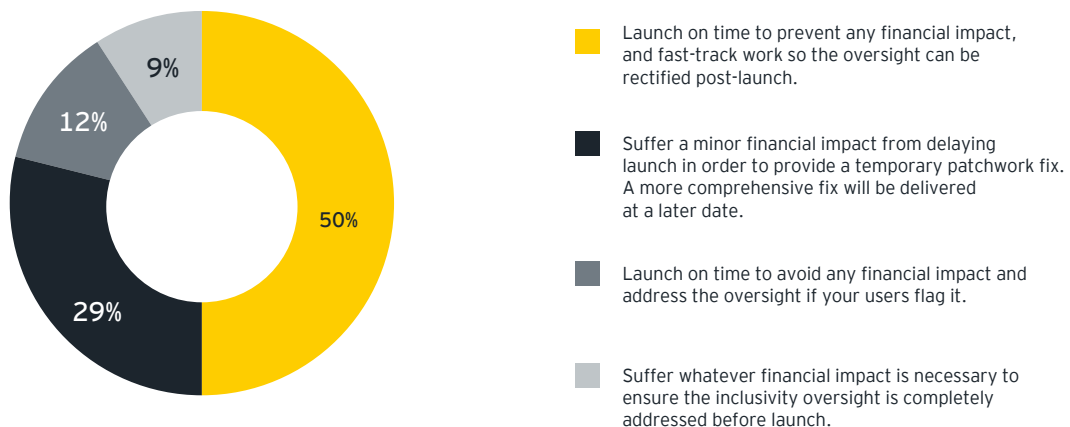
However, EY's research suggests that many companies may fall short in this area. A second hypothetical scenario asked respondents what their organisations would do if, just before launching a new metaverse application, it became clear that the design would exclude some groups. Sixty-two percent of respondents say they would launch the application on schedule regardless. Some (12%) suggest that they would not take remedial action unless users flagged the issue, and others would fix it only following the launch. Just 38% say they would delay the launch.

Scenario: Business responses to a metaverse design flaw affecting inclusivity

Figure 7: In the following scenario, which option do you believe would best describe your organisation's likely approach? (N=501)

Two days before launching your first metaverse experience/application, a member of your team flags a major oversight in the current design that affects how inclusive it would be for some user groups. What is your organisation's likely approach?

- **50%** Launch on time to prevent any financial impact, and fast-track work so the oversight can be rectified post-launch.
- **29%** Suffer a minor financial impact from delaying launch in order to provide a temporary patchwork fix. A more comprehensive fix will be delivered at a later date.
- **12%** Launch on time to avoid any financial impact and address the oversight if your users flag it.
- **9%** Suffer whatever financial impact is necessary to ensure the inclusivity oversight is completely addressed before launch.

A sustainable impact

The risks of harm in the metaverse are real, but could businesses also use it to enhance DE&I? When it comes to the work environment, nearly two-thirds of respondents (64%) believe that the metaverse "offers an opportunity to transform our approach to creating a diverse and inclusive workplace". Enabling employees with health conditions or other impairments to fully interact with colleagues in virtual environments is one example.
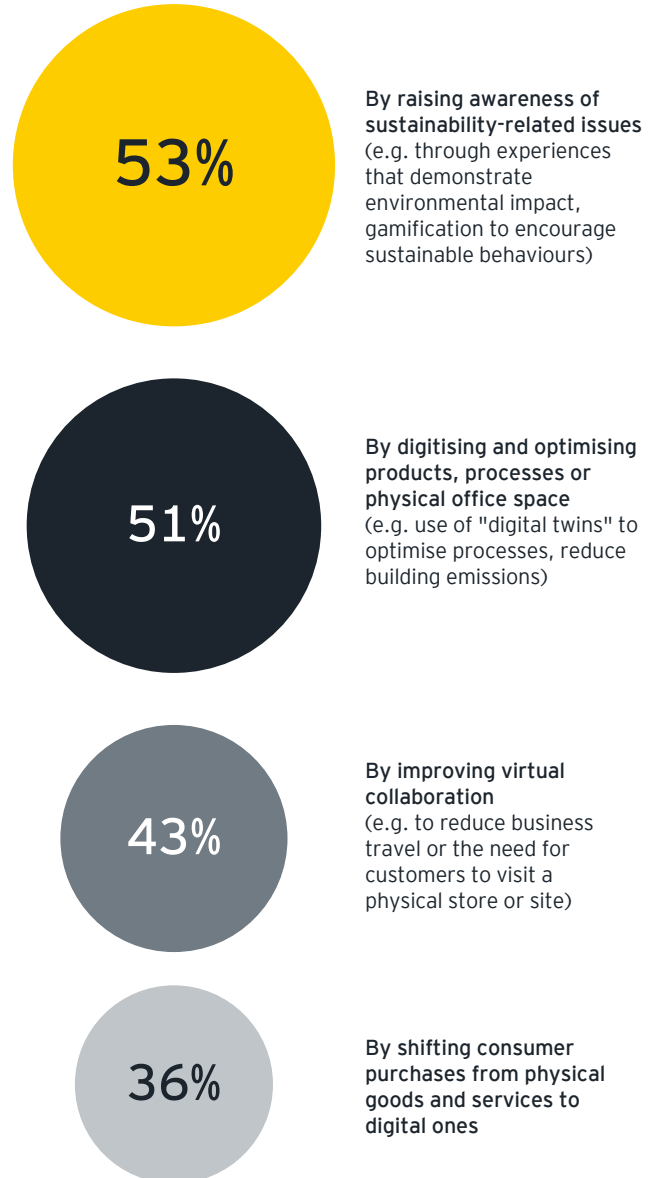
The metaverse is also likely to have both benefits and disadvantages for climate change. Its enormous data storage and computational needs may add to global carbon emissions. But most of the executives in our survey are optimistic that they can also use the metaverse to support net-zero:

▸ By using immersive games or other experiences to encourage sustainable behaviours by employees or external users (53%)

▸ By using digital twins to design physical spaces in ways that reduce emissions (51%)

Currently, opportunities for reducing carbon emissions via the metaverse are mainly theoretical but there are grounds for optimism, given that business leaders recognise the potential.

Figure 8: In which ways, if any, does your organisation see a realistic opportunity to use metaverse applications/experiences as a means of delivering on your wider sustainability goals? (N=501)

How the metaverse could help improve organisations' sustainability and adoption of metaverse experiences

53% — **By raising awareness of sustainability-related issues** (e.g. through experiences that demonstrate environmental impact, gamification to encourage sustainable behaviours)

51% — **By digitising and optimising products, processes or physical office space** (e.g. use of "digital twins" to optimise processes, reduce building emissions)

43% — **By improving virtual collaboration** (e.g. to reduce business travel or the need for customers to visit a physical store or site)

36% — **By shifting consumer purchases from physical goods and services to digital ones**

4 Building new worlds

Views from practitioners

If organisations can overcome their doubts about the metaverse, potential opportunities include:

▸ Strengthening retention of existing customers

▸ Attracting new customers from younger generations

▸ Establishing new revenue streams

▸ Keeping employees engaged and motivated

Early movers are pursuing use cases that give us an idea of what the metaverse may be able to achieve. For example, 45% of early movers refer to improvement in customer support. Their organisations enable service desks and help centres to provide guidance and handle customer queries about how to navigate metaverse experiences and applications.

Metaverse use in sales and brand-building is another focus for 40% of early movers. Virtual stores and studios that allow users to explore a company's products can enhance customer experience. One example is McLaren, the producer of high-performance cars, which is building an immersive environment that enables community members to custom design its cars[6]. In fashion, Burberry has offered virtual handbags for sale in metaverse games and has built a virtual London for game-users to explore, complete with themed company motifs and characters[7].

Internal and external collaboration is another important feature, according to 40% of early movers. The use of avatars and other VR features can enhance everyday team interactions. Metaverse environments are likely to prove particularly useful for engineers and designers working collaboratively on models for new automotive systems or new garments, for example. Meanwhile, EY has created its own metaverse experiences, designed to help its clients to co-innovate[8].

Human resource applications of the metaverse – in recruitment, onboarding and learning and development – are also attracting attention. Some pharmaceutical companies, for example, are using metaverse elements, such as VR, to train employees in the safe handling of drugs[9].

Other companies intend to use metaverse environments for business optimisation. For example, consumer goods producer Kraft Heinz plans to use digital twins (digital representations of real-world products, systems or sites) to provide greater visibility and control of its global supply chain[10].

[6]. "McLaren Enters Metaverse With MSO Lab, NFT Drop Feat", *motor1.com*, 6 May 2022.
[7]. "The Burberry And Minecraft Partnership: High Fashion Is Taking The Metaverse Seriously", *a.list*, 1 November 2022.
[8]. "EY wavespace™ and EY metaverse lab help clients transform for the decentralized economy, driven by the Metaverse and Web3", *Cision PR Newswire*, 26 October 2022.
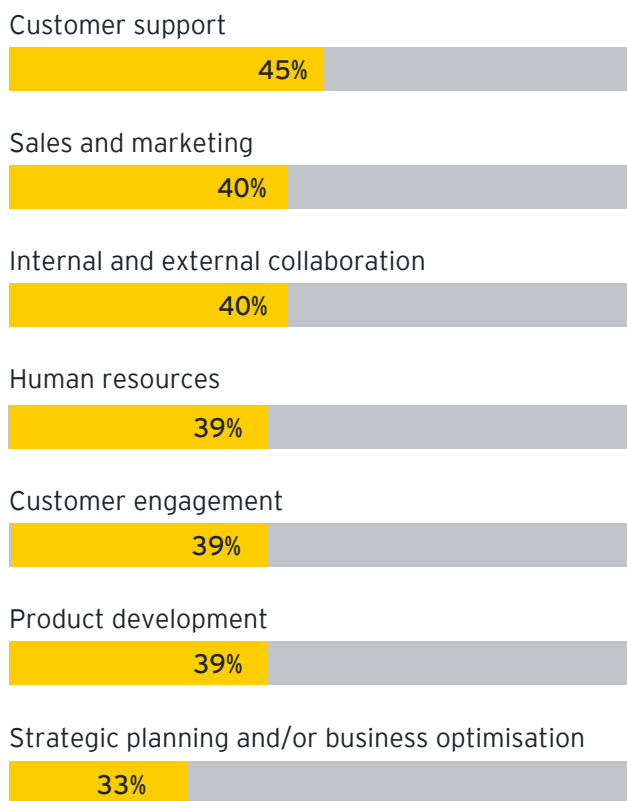[9]. "Education Meets the Metaverse: Reimagining the Future of Learning", *World Bank Open Learning Campus,* 16 February 2023.
[10]. "US giant Kraft Heinz will use the metaverse to quash logistical woes. Here's how it plans to avoid products getting trapped in its supply chain", *Business Insider India*, 7 May 2022.

45%

of early movers in the metaverse are investing in customer support.

Figure 9: Are you investing in metaverse-related capabilities (applications, technologies or some kind of use case) in any of the following areas? (N=235)

Where the early movers are investing in the metaverse

Customer support

45%

Sales and marketing

40%

Internal and external collaboration

40%

Human resources

39%

Customer engagement

39%

Product development

39%

Strategic planning and/or business optimisation

33%

We asked respondents from the early mover group to provide examples of the types of metaverse-related applications in which they are investing. Metaverse worlds and games are popular in most industries, especially power and utilities; real estate, hospitality and construction; and consumer products and retail. Other applications relate to:

▸ Virtual working, preferred by financial services and power and utility providers

▸ Customer service and support, particularly in telecoms, media and entertainment, and technology (TMT) and advanced manufacturing

▸ Training and recruitment, particularly by power companies

The early movers' use cases

	Metaverse worlds/games	Virtual office/ remote working	Customer service/ customer relations	Business operations: Training, recruitment and HR
Total	16%	8%	8%	6%
Advanced manufacturing & diversified industrial products	16%	4%	12%	4%
Automotive and transportation	15%	7%	7%	4%
Consumer products and retail	20%	8%	8%	8%
Financial services	18%	16%	4%	8%
Government and public sector	7%	7%	7%	7%
Health and life sciences	8%	4%	8%	4%
Power and utilities	22%	22%	--	11%
Real estate, hospitality and construction	21%	0%	0%	7%
Telecoms, media and entertainment and technology (TMT)	5%	5%	14%	9%

It's decision time

All this activity means that leaders of other organisations need to decide whether to begin making similar investments and when to make them. In the financial services sector, Mr Moni says that the time is likely to be soon. "Banks cannot afford to remain outside the metaverse," he says. "They have an opportunity to become the financial fabric within it, but if they don't engage, they will be disintermediated."

And, according to Ms Henchoz, these decisions will be based on where leaders think their customers stand on the metaverse: "Business leaders must ask themselves, 'If we don't establish a metaverse presence, will we become irrelevant to our customer base?'"

Three steps to building trusted customer experiences in the metaverse

If developed responsibly, the metaverse has enormous potential not just to create new sources of business growth but also to bridge current societal divides.

To ensure the metaverse is safe, welcoming and accessible to all, leaders of businesses and other organisations should take three steps:

1
Understand the risks

Make informed decisions about the metaverse by gaining a better understanding of the harms that negative metaverse experiences could cause.

2
Give ethicists a voice

Hire digital ethics specialists for your team to ensure metaverse experiences and applications are developed responsibly and sustainably.

3
Don't reinvent the wheel

Adapt existing approaches from the worlds of AI and social media to strengthen DE&I in the digital experiences you build.

There is growing evidence that the metaverse could become an enabler of social and economic progress, just as the internet and mobile technology have been before it. While the metaverse continues to emerge, businesses should be thinking about putting in place the safeguards to guide it in the right direction. Only by putting citizens and consumers at the heart of metaverse development will trust be forged and the true potential of the metaverse brought to fruition.

About the research

In October to November 2022, we approached 883 executives in UK and Ireland businesses for their views on the metaverse.

To participate in the survey, executives had to demonstrate an understanding of the metaverse and their involvement in, or awareness of, their organisation's approach. Of the 883 individuals approached, 501 met this requirement and completed the survey.

All respondents have senior roles in their organisations: 30% are C-suite executives or board members and 70% are department heads, directors or vice-presidents. Just over one-third have IT or technology roles; the rest work in areas such as strategy, HR or risk management.

Respondents' organisations come from 10 sectors, with financial services and consumer products and retail the most widely represented. All respondents work in medium-sized or large organisations, with annual revenues ranging from £250m to more than £20bn.

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ey.com/uk

Contact us

Dr Harvey Lewis
Partner
EY UK & Ireland
harvey.lewis@uk.ey.com

Laura Henchoz
Director
EY UK & Ireland
laura.henchoz@uk.ey.com