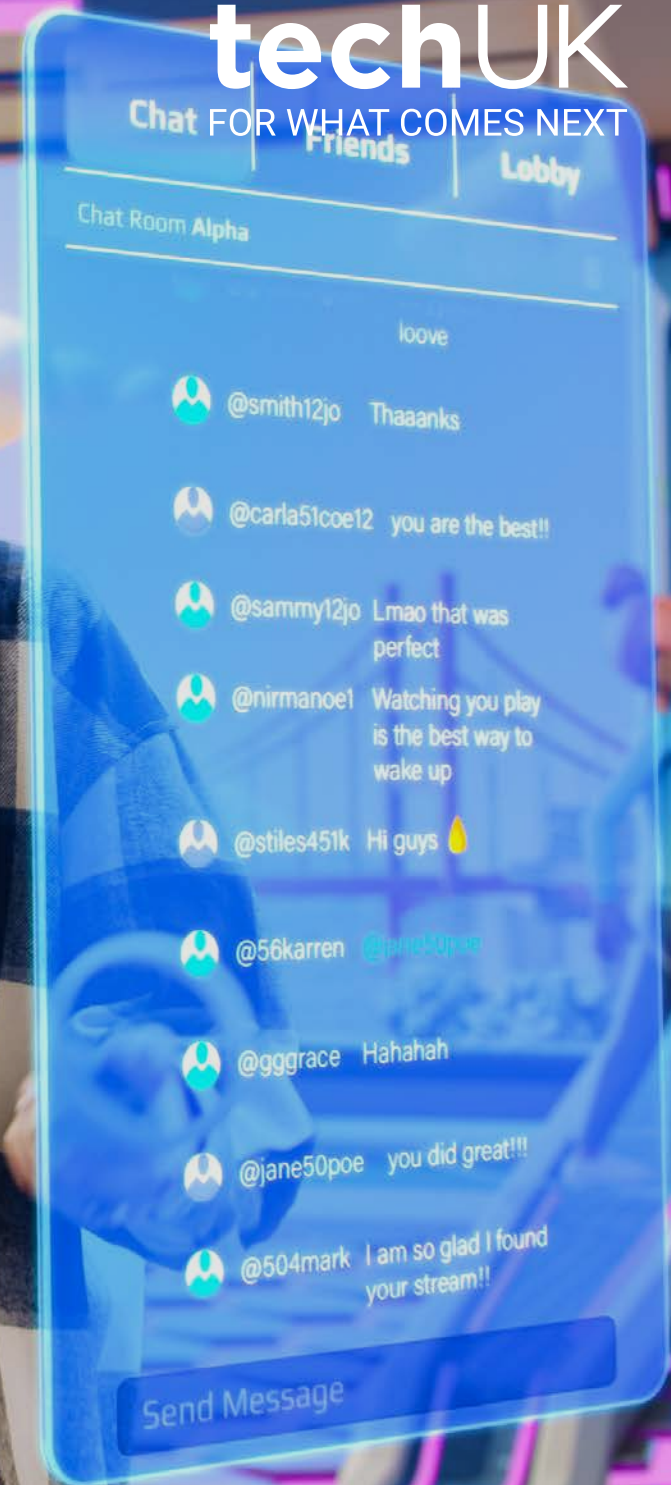


The future of Web3 & Immersive technologies in the UK

June 2025



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From July to December 2024, techUK ran a [sprint campaign](#) exploring how the UK can lead on the development, application and commercialisation of Web3 and Immersive technologies. This featured workshops, roundtables, panel discussions, networking sessions, articles and more on everything from Web3 working to [Immersive gaming](#) and the use of Immersive tech within the black community.

This paper summarises the sprint campaign's main findings and conclusions by listing the key Web3 & Immersive technologies of interest to UK industry and Government. We aim to provide examples of how and where these technologies will be most effectively applied across key sectors in which the UK has a strong comparative advantage. Finally, we suggest the areas in which the UK government should focus next if it is to make future UK leadership in these technologies and their applications a reality.



1. Key Web3 and Immersive technologies

Web3 technologies encompass decentralised, blockchain-based systems and digital assets. Components include **blockchain ledgers, smart contracts, Non-Fungible Tokens (NFTs) and digital collectibles, Decentralised Finance (DeFi) protocols, Decentralised Autonomous Organisations (DAOs), digital identity, and central bank digital currencies (CBDCs)**. These enable peer-to-peer exchange, transparent record-keeping and tokenised ownership.

Immersive technologies include **Virtual Reality (VR)** which fully immerses users in a computer-generated environment, **Augmented Reality (AR)** which overlays virtual content onto the real world, **Mixed/Extended Reality (MR/XR)** which seamlessly blend virtual and physical elements, **spatial computing** software that understands and augments physical space, **haptic devices** like gloves and suits that provide tactile feedback, and **holographic displays** that project 3D images.

AI is increasingly driving the development and adoption of [Web3](#) and [Immersive](#) technologies, for example through **assisting developers** with routine tasks, **generating new kinds of content** in real-time, and ensuring **seamless and adaptive experiences** supported by emotion recognition and natural language interfaces. It is also accelerating their convergence and forming the backbone of a more intelligent, immersive and decentralised internet. In addition, characteristics such as **Web3's digital-first architecture** and **VR data visualisation tools** are shaping how AI operates.

A variety of techUK member companies are leading in the development and application of these technologies. Examples include, but are not limited to, platforms and device manufacturers (such as **Apple**), gaming companies (such as **Sony Interactive Entertainment**), Immersive agencies & production studios (such as **BCVR Immersive**) and consultancies (such as **Cassette**), deep tech innovation organisations (such as **Digital Catapult**), VR centres (such as **UnplugVR**), blockchain solutions providers (such as **TBTL**), Immersive learning specialists (such as **Make Real**), and more (such as **The Metaverse Institute**).



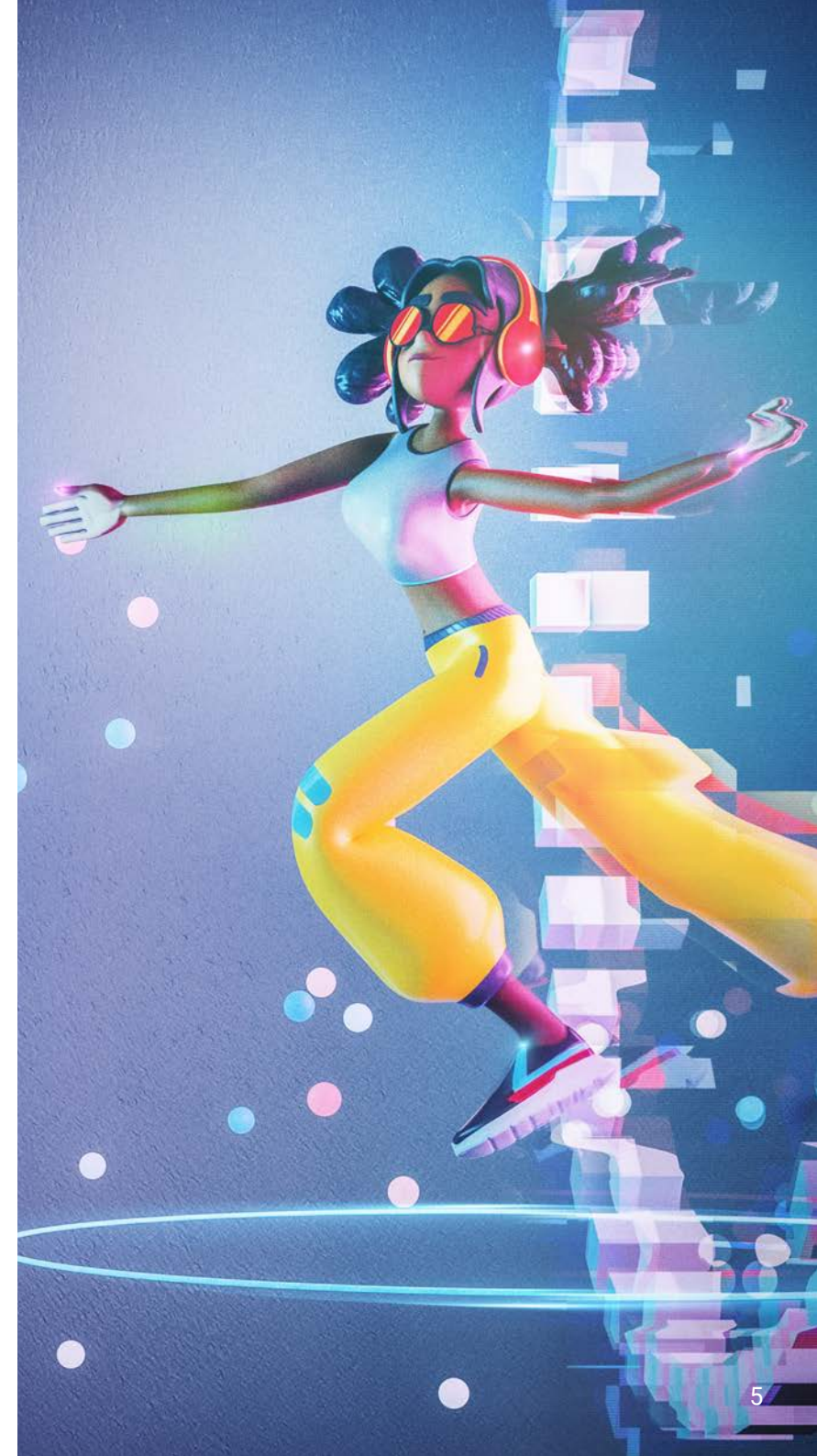
2. Why these technologies matter

Web3 and immersive technologies bring **unique properties** that can transform industries. Web3's **decentralisation** and **cryptographic trust** enable new economic models such as token economies and transparent supply chains without relying on centralised intermediaries. Immersive tech provides **presence and experiential depth**, leveraging the human brain's capacity to process immersive experiences more intuitively to enhance everything from learning and comprehension to [simulation](#) and [decision-making](#).

Several sectors and industries in particular are pioneering the use of these technologies across the UK. Those featured during this sprint campaign include:

Creative & Gaming:

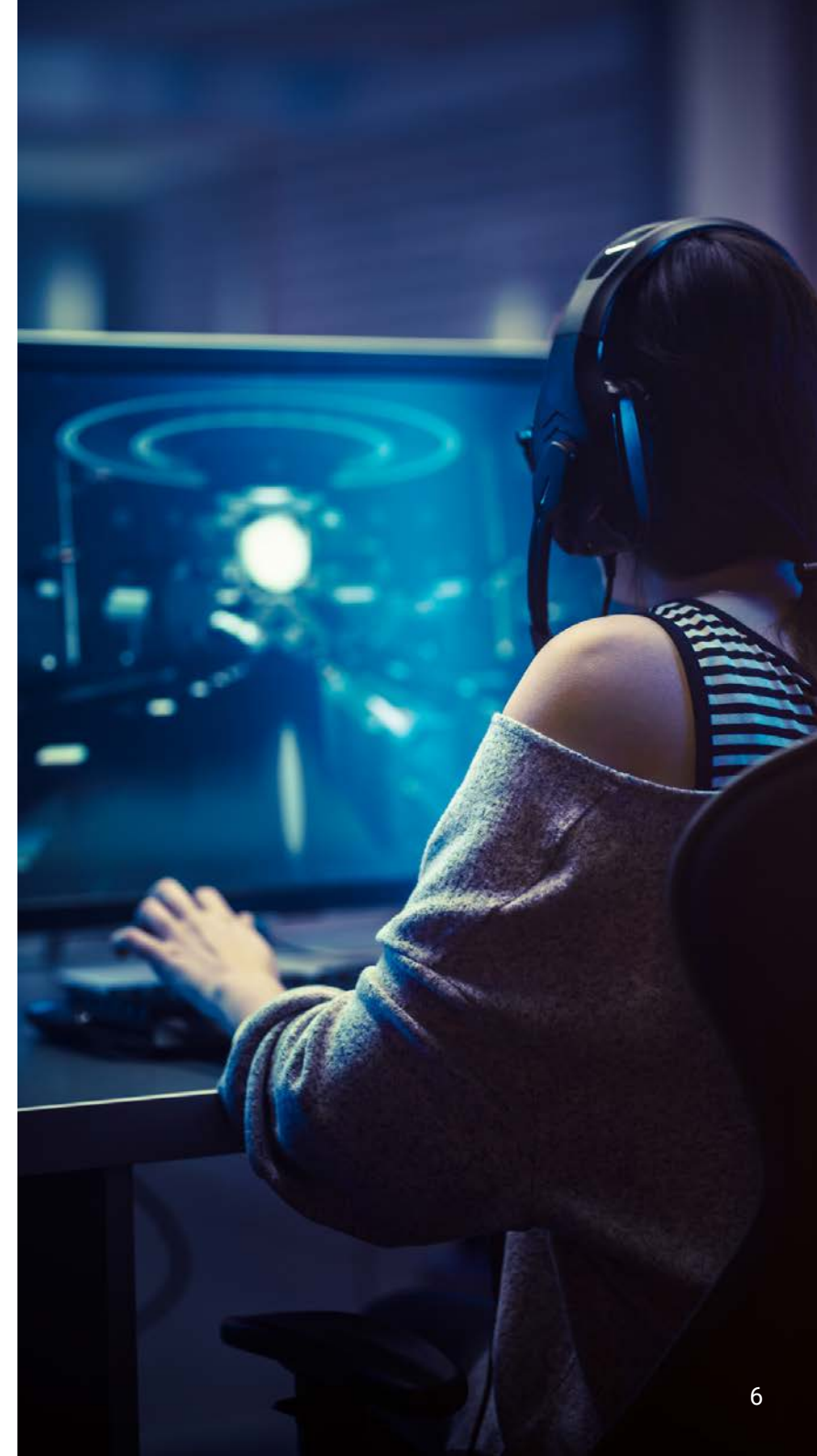
The UK's creative industries are increasingly leveraging Web3 & Immersive technologies to produce world-leading hardware and experiences such as AR-enhanced concerts, [immersive gaming experiences](#) and digital art (NFTs). For example, in 2021, **BCVR** produced Sonzai, an award nominated immersive & interactive dance installation commissioned by the V&A Museum. Since, such mixed reality or spatial productions have only grown in popularity and sophistication. Published in November 2024 following



a [six-month sprint campaign](#), techUK's first Gaming & Esports report highlights **Web3-enabled interoperability**, [metaverse gaming](#) and virtual economies as future tech trends to watch. techUK is now working with industry to explore the implications of these technologies across the creative industries, from [AI skills for creators and marketers](#) to [creative expression](#).

Manufacturing:

The continued adoption of Immersive technologies across the UK's manufacturing industry is accelerating the training of robots or 'smart machines' by enabling engineers to "train by observation" or test human-machine interactions before deploying costly hardware. In addition, **industrial AR wearables** guide workers through complex assembly with superimposed instructions, boosting productivity, while **Immersive digital twins** allow designers to visualise and test machinery virtually, shortening development cycles. Such industrial processes are often underpinned by Web3 technologies that enable new ways to manage data, upgrade supply chains, and enhance trust and security. Concepts including **computer vision** and the use of **self-sovereign digital wallets to enable robotic interoperability** were recently explored in techUK's [Productivity & Automation insight series](#) as part of a six-month [Robotics & Automation sprint campaign](#). Such topics also appear in techUK's [Industrial AI sprint campaign](#).



3. Key takeaways from the sprint campaign

1. The true potential for transformation lies at the intersection of technologies

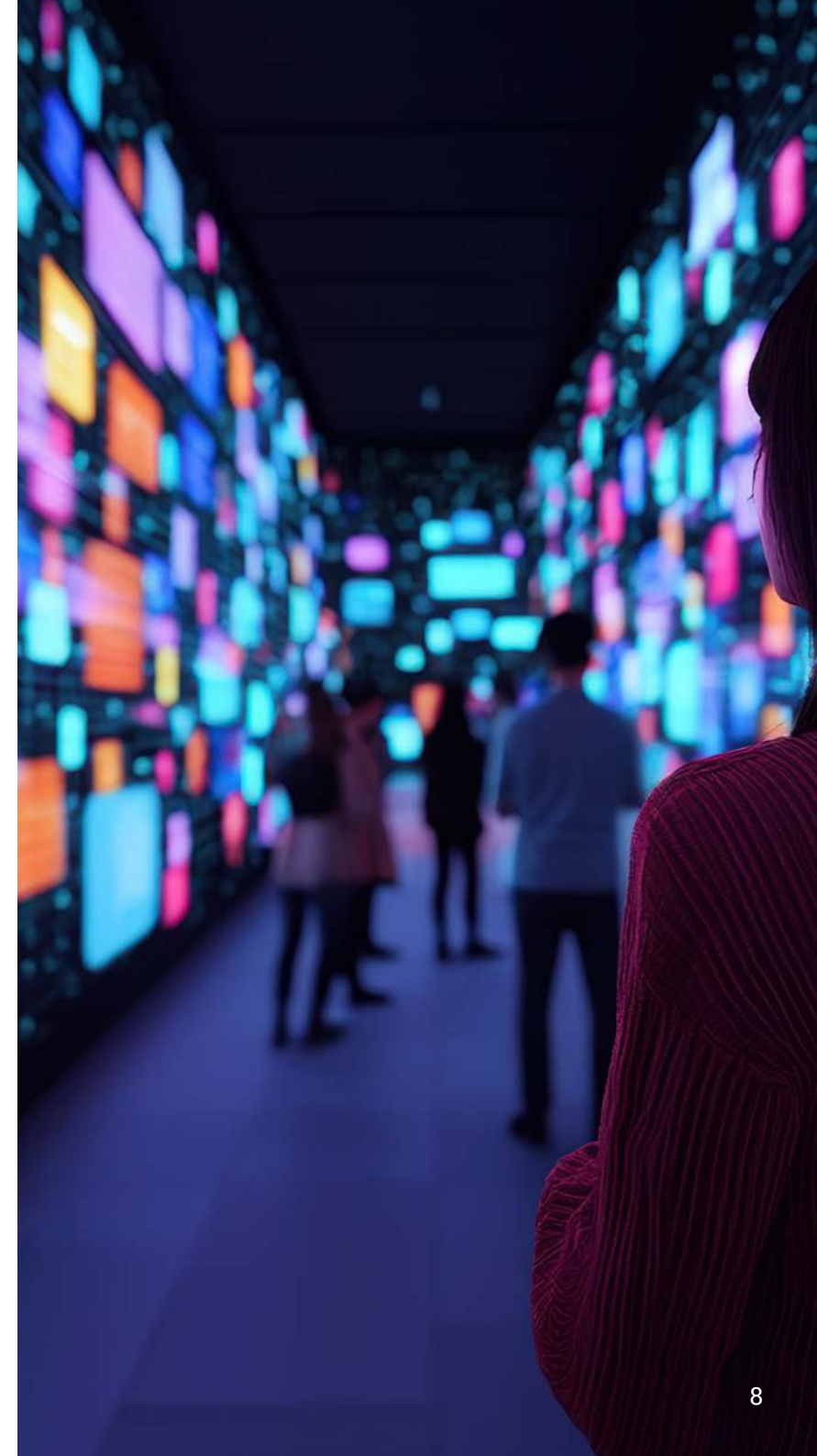
On their own, Web3 and Immersive technologies will have limited impact on business models, industries and sectors. Throughout this sprint campaign, experts have demonstrated that only by combining them, often with AI, compute or connectivity technologies, can businesses create truly transformative products or services. These promise to be more immersive, intelligent, connected, autonomous and powerful than ever before. This topic of innovation at the intersection is one that techUK will explore further over the coming months.

2. The UK must lay the foundation for transformative impact at scale

The Web3 and Immersive landscape comprises a broad range of technologies, spanning everything from infrastructure and platforms to applications and services. While we anticipate that many of these will be transformative, it is still too early to say how they will be applied across businesses, industries or sectors. Organisations such as DSIT, UKRI and Digital Catapult must ensure that the fundamentals are in place to enable innovators across this spectrum of technologies to create products or services with the potential to transform. These include skills, talent, funding and facilities.

3. Future success across Web3 and Immersive will require convening, collaboration and championing

There is still a long way to go before these technologies become truly ubiquitous and transformative. Only by bringing together the right mix of stakeholders, facilitating collaboration around everything from design to deployment, and signposting promising applications or examples of best practice can the UK create a thriving Web3 and Immersive ecosystem. This sprint campaign – which has featured panel discussions, articles, interviews and tech demos involving industry, government, academia, investors, educators, and more – can serve as a model to be replicated across the UK's Web3 and Immersive sectors in the future.



techUK will continue to work with the UK's Web3 and Immersive industries to ensure they lead on the development, application and commercialisation of these technologies. Future success will depend upon **regulatory clarity and pro-innovation frameworks** (including clear, balanced rules around areas such as copyright and cryptocurrencies), **common standards** that protect users (safety, privacy...) and facilitate collaboration (interoperability, APIs...), plus dedicated **government investment and support for R&D, adoption and commercialisation.**





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