

# China Internet Sector

## Meta Connect 2022: bridging the gap towards metaverse

Meta hosted the Meta Connect 2022 on 11 Oct, launching its first high-end VR headset Meta Quest Pro. The new VR headset will begin shipping on 25 October for US\$1,499.99. With innovative features like pancake lenses, eye tracking, natural facial expressions and colour passthrough, Meta Quest Pro will meaningfully enhance the social/gaming/work VR experience in our view. Meta also revealed new content and collaborative projects for the development of its VR ecosystem, such as 1) introduction of Xbox Cloud Gaming to Meta Quest Store; 2) more flexible YouTube VR experience, and 3) more immersive work collaboration in VR supported by Microsoft. We expect these initiatives to expand VR use cases and bridge the gap towards Meta's vision of metaverse. China's VR ecosystem remains at early stage of development, we favour leading tech platforms with strong content and use-case applications, such as Tencent/ByteDance/NetEase/Alibaba. They also have capital strength to support development in the VR landscape in the long term.

- **Innovative features enhance VR experience.** Several new features of Meta Quest Pro will enhance VR experience: 1) pancake lenses that reduce depth and weight of the optical module allow more comfortable headset wearing experience; 2) high-resolution sensors and colour passthrough support robust mixed reality (MR) experiences; 3) eye tracking and natural facial expressions improve social presence. We believe the enhanced features will benefit the VR content parties, especially the hardcore game developers and work collaboration tool providers, as their highly-engaging content require more immersive VR experience.
- **Growing VR content ecosystem.** Meta discloses that total spending on VR content in the Meta Quest Store has surpassed US\$1.5bn to date. Around one-third of the 400+ apps in the Meta Quest Store have generated revenue of over US\$1mn. Gaming remains as a key content category in its VR ecosystem. Meta has been stepping up efforts in developing its VR gaming content and already acquired several top-tiered VR gaming studios like Camouflaj Teams, Twisted Pixel and Armature Studio. It also announced that Microsoft's Xbox Cloud Gaming is planned to launch on the Meta Quest Store. China's leading content providers already have better content ecosystem to support VR experience upgrade.
- **Expanding VR use cases to work and fitness.** As the experience gets more immersive, we expect VR to reshape work and fitness. For the professional use case, Meta revealed cooperation with Microsoft to introduce Microsoft Teams and Microsoft 365 on Meta Quest. On the fitness front, Meta plans to launch its first fitness accessory bundle Meta Quest 2 Active Pack, a basketball game Gym Class - Basketball VR, and a new Fitness API. The Chinese peers such as Tencent and Alibaba are already well equipped with enterprise SaaS and software capabilities.
- **China VR ecosystem remains at early stage of development.** We favour leading platforms like Tencent/ByteDance/NetEase/Alibaba, with strong content development capabilities and use-case applications to support industry development. Tencent set up the extended reality (XR) department in June 2022, focusing on the development of XR hardware and software, per Reuters. ByteDance, leveraging its VR product Pico, continues to expand its VR content ecosystem.

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## Meta Connect 2022 update

Meta launched its first high-end VR headset Meta Quest Pro on Meta Connect 2022. The new VR headset will begin shipping on 25 October for US\$1,499.99. We noted that a number of new features will substantially improve VR experience: 1) pancake lenses that reduce depth and weight of the optical module allow more comfortable headset wearing experience; 2) high-resolution sensors and colour passthrough support robust mixed reality (MR) experiences; 3) eye tracking and natural facial expressions improve social presence; 4) new Qualcomm Snapdragon XR2+ processor results in significantly better performance than Meta Quest 2; 5) 37% more pixels per inch than Meta Quest 2 to provide clearer visuals. We expect the improvement in VR hardware to support development of VR content ecosystem and benefit VR content developers, especially the hardcore game developers and work collaboration tool providers, as their highly-engaging content require more immersive VR experience.

**Figure 1: Meta Quest Pro**



Source: Company data, CMBIGM

**Figure 2: Meta Quest Touch Pro controllers**



Source: Company data, CMBIGM

**Figure 3: Meta Quest Pro: Specs**

Features	Specs
Resolution	1800 x 1920 (3.5MP) per-eye, LCD (2x)
Refresh Rate	72Hz, 90Hz
Lenses	Pancake non-Fresnel
Field-of-view	106°H x 96°V
Processor	Snapdragon XR2+
RAM	12GB
Storage	256GB
Weight	722g
Expression Tracking	Eyes & face
On-board cameras	5x external, 5x internal
Input	Touch Pro controllers, hand-tracking, voice
Pass-through view	Yes (color)

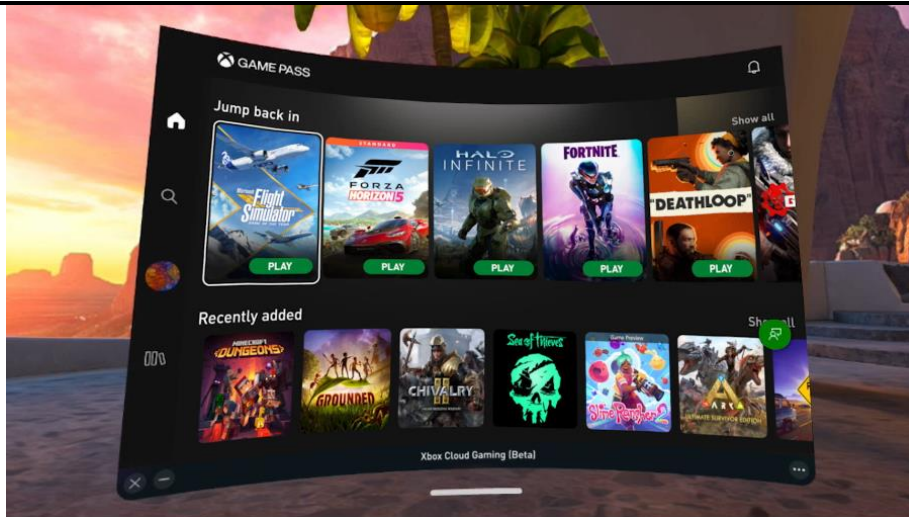
Source: Company data, roadtovr, CMBIGM

## Vibrant VR content ecosystem with expanding use cases

In terms of the evolving VR ecosystem, Meta discloses that total spending on VR content in the Meta Quest Store has surpassed US\$1.5bn to date, with the number of apps that have made over US\$5mn doubled YoY. Around one-third of the 400+ apps in the Meta Quest Store have generated revenue of over US\$1mn.

Gaming remains as a key content category in its VR ecosystem. For the pipeline, Meta revealed that it will introduce Marvel's Iron Man VR to Meta Quest on 3 November. It also announced that Microsoft's Xbox Cloud Gaming is planned to launch on the Meta Quest Store. Since 2020, Meta has been stepping up efforts in developing its VR gaming content and already acquired several top-tier VR gaming studios such as Camouflaj Teams (Marvel's Iron Man VR), Twisted Pixel (Path of the Warrior) and Armature Studio (Resident Evil 4 VR).

**Figure 4: Xbox Cloud Gaming in VR**



Source: Company data, CMBIGM

Beyond gaming, Meta Quest Pro further expands VR use cases to work and fitness. As the experience gets more immersive, we expect VR to reshape work and fitness. For the professional use case, Meta revealed cooperation with Microsoft to introduce Microsoft Teams and Microsoft 365 on Meta Quest. Meta also launched the project Magic Room, which aims to lower barriers between VR and traditional platforms (i.e., users can join a virtual office from whatever device they use).

On the fitness front, Meta is launching its first fitness accessory bundle Meta Quest 2 Active Pack, which can provide more immersive workout experience. Meta also planned to introduce a new basketball game, Gym Class - Basketball VR, to further expand its fitness content ecosystem. Besides, Meta will release a beta of the new Fitness API this fall, which can facilitate developers to build fitness content on its platform.

**Figure 5: Microsoft Teams meeting in VR**



Source: Company data, CMBIGM

**Figure 6: Meta Quest Pro: Fitness**



Source: Company data, CMBIGM

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