The industrial metaverse

Realising the augmented
future of facilities management

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Realising potential
in every dimension

" The Metaverse is a massively scaled and interoperable network of real-time rendered 3D virtual worlds and environments which can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence, and with continuity of data, such as identity, history, entitlements, objects, communications, and payments. "

Matthew Ball – The metaverse and how it will revolutionise everything, 2022

McKinsey & Co –
Value creation in the metaverse, June 2022

In 2021, venture capital and private-equity funding into the metaverse reached

$13 billion

By 2030, the value of the metaverse could reach

$5 trillion

In 2022, investment into the metaverse space was more than double what it was in all of 2021
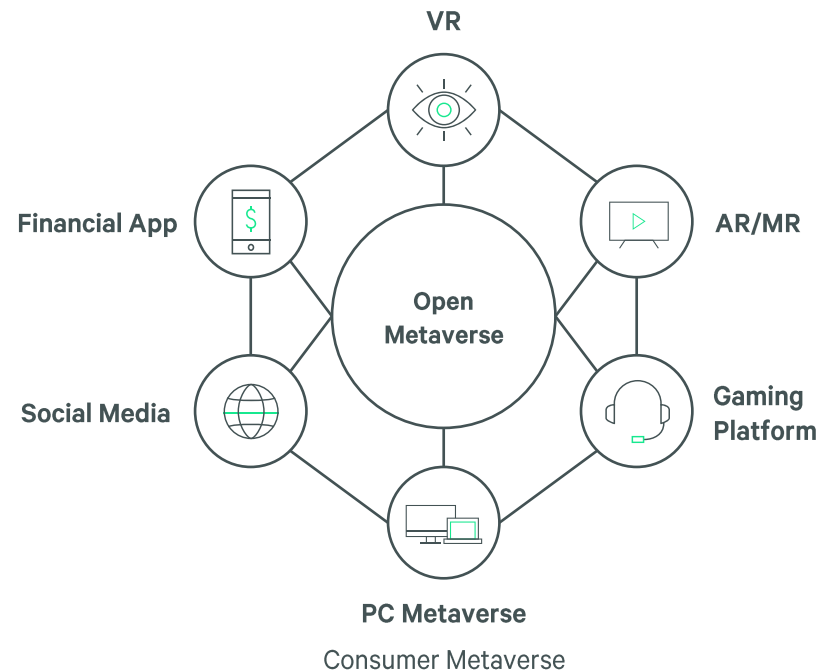
~$120 billion

The BIG 'M' & small 'm' in metaverse

For the Metaverse to work, it has to make your physical life better, cheaper, faster and more connected. That's what internet did for us…
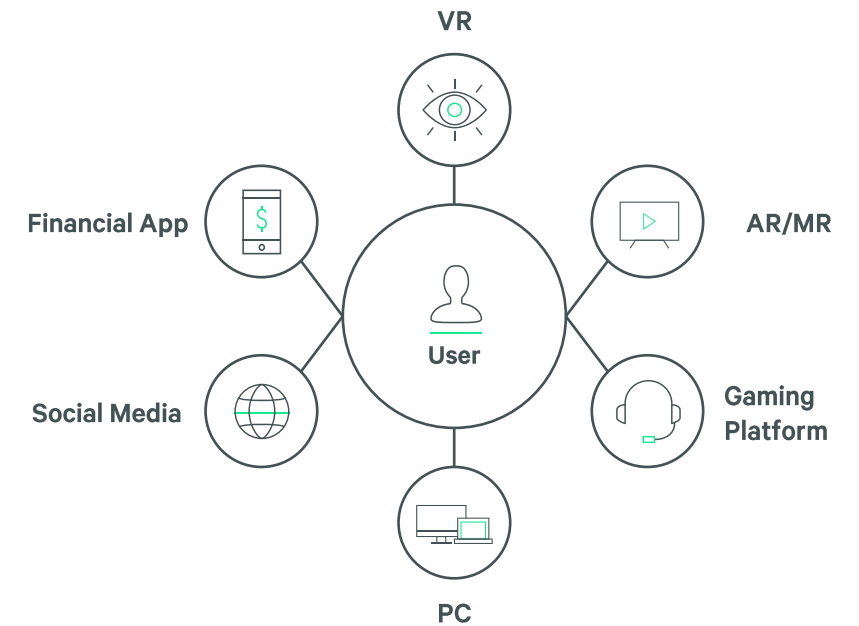
The BIG 'M' is FUTURE - 10-15years!

Persistent, Decentralised, Interconnected & 3D experience

The small 'm' is TODAY!

Meta-Rooms | Silos experiences or 'Walled Gardens'

VR

Financial App

AR/MR

Social Media

Open Metaverse

Gaming Platform

PC Metaverse

Consumer Metaverse

VR

Financial App

AR/MR

Social Media

User

Gaming Platform

PC

Today's metaverse

Consumer metaverse

Enhances the social, entertainment, and wellbeing experiences of individuals

Commercial metaverse

Creates next-generation, immersive communication and collaboration for people in work environment

Industrial metaverse

Enables humans and AI to work together to design, build, operate, and optimise physical systems using digital technologies

Is Mixed Reality the same as Virtual Reality?

Mixed Reality (MR) / Virtual Reality (VR) / Augmented Reality (AR)

Digital objects and information are layered into the physical world around the user, who can interact with both the physical and digital worlds.

Empowering FM teams with XRS

Use case one

Remote Support

- Reduced downtime
- Increased first time fixes
- Lessened OEM/vendor visits
- Improved client satisfaction
- Better employee engagement
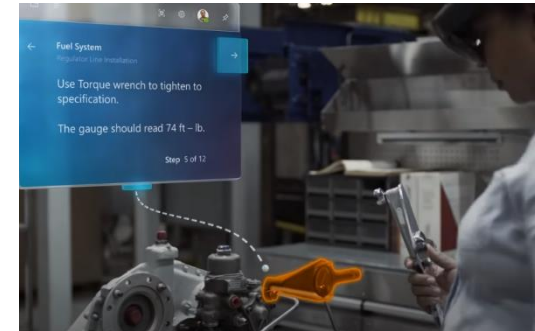- Quality improvement and risk reduction

Use case two

Remote Inspections

- Remote inspections
- Interactive walkthroughs
- Visual project updates
- Customer escalations
- Remote Gemba's
- Quality improvement and risk reduction (QHSE)
- Inspections

Use case three

Immersive Learning

- Faster training
- Improved training effectiveness
- Reduced training costs
- Empowered employees
- Quality improvement and risk reduction
- Knowledge transfer

Whatever the use case

XRS has brought significant improvements in cost and emissions reduction in addition to the time efficiency gains through remote support, inspection, and immersive training.

	Productivity Gains Time Travel Operation Efficiency	Cost Reduction Travel & Expenses Training Delivery	Emissions Reduction Travel Trips International & National
Remote Support	$1,920	$5,380	3,179Kg CO_2
Remote Inspection	$2,400	$4,000	1,515Kg CO_2
Immersive Training	$576	$3,626	72Kg CO_2

10, 000kg CO_2

Reduction on average per user per year based on two use cases / user per month.

4xROI

On average per user per year based on two use cases / user per month.

Key takeaways

The three metaverses are coming – embrace them

Leading companies are heavily investing in, testing and deploying the three metaverses

The industrial metaverse works for FM

Those that invest, will gain competitive advantage

CBRE

Thank you

What if the world's knowledge was
not a click away, but a glance?

Industrial Metaverse

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