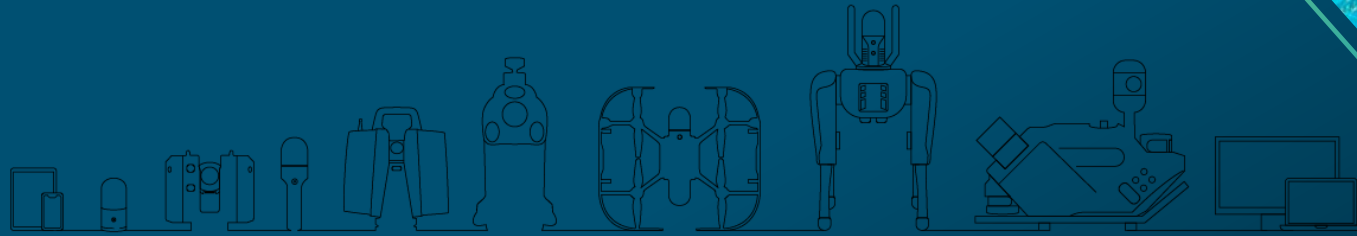




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Construction Lifecycle: From 3D to Metaverse

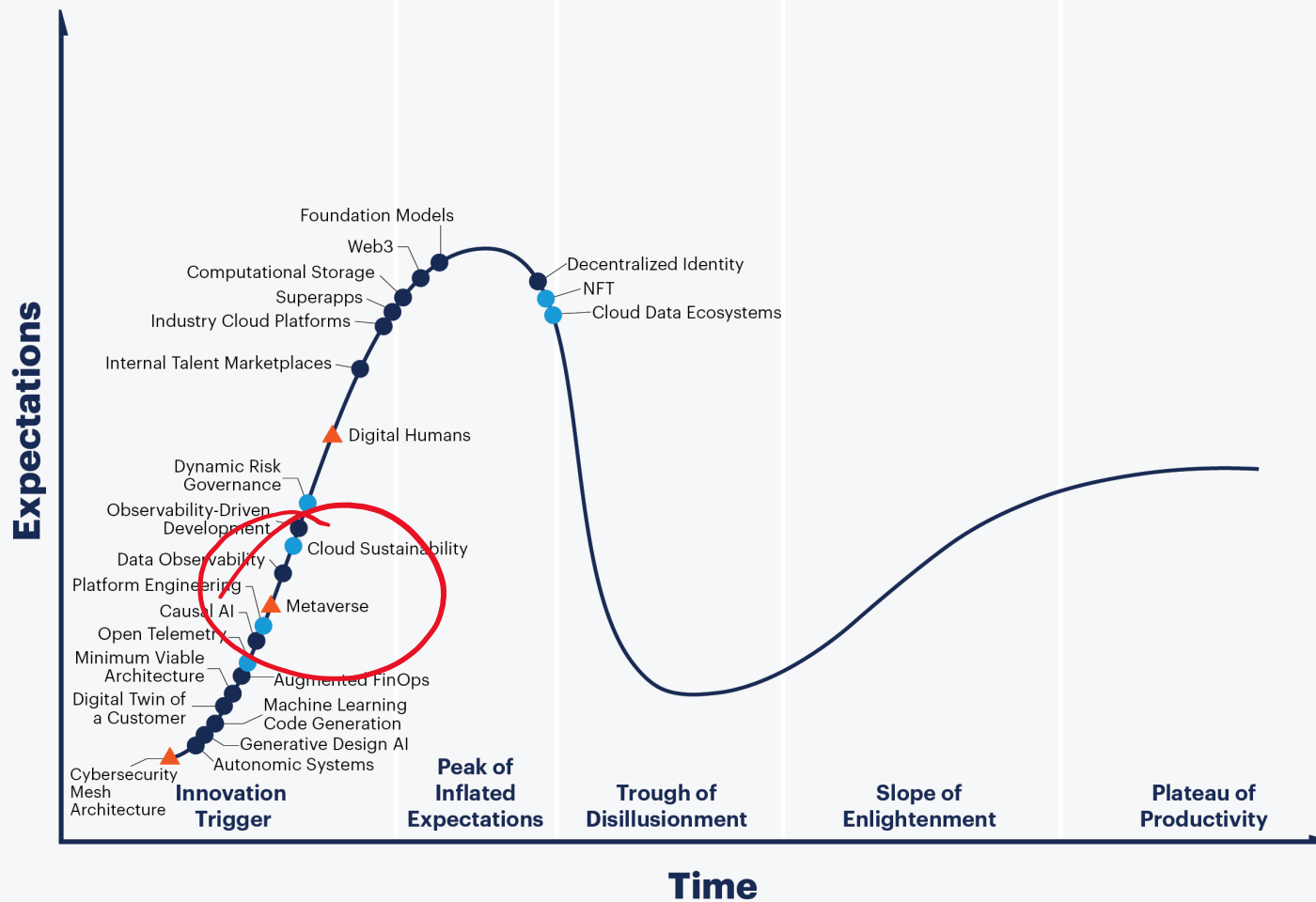
May 2023

Andreas Gerster

VP Software Technology Geosystems - Reality Capture



Hype Cycle for Emerging Tech, 2022



Plateau will be reached:

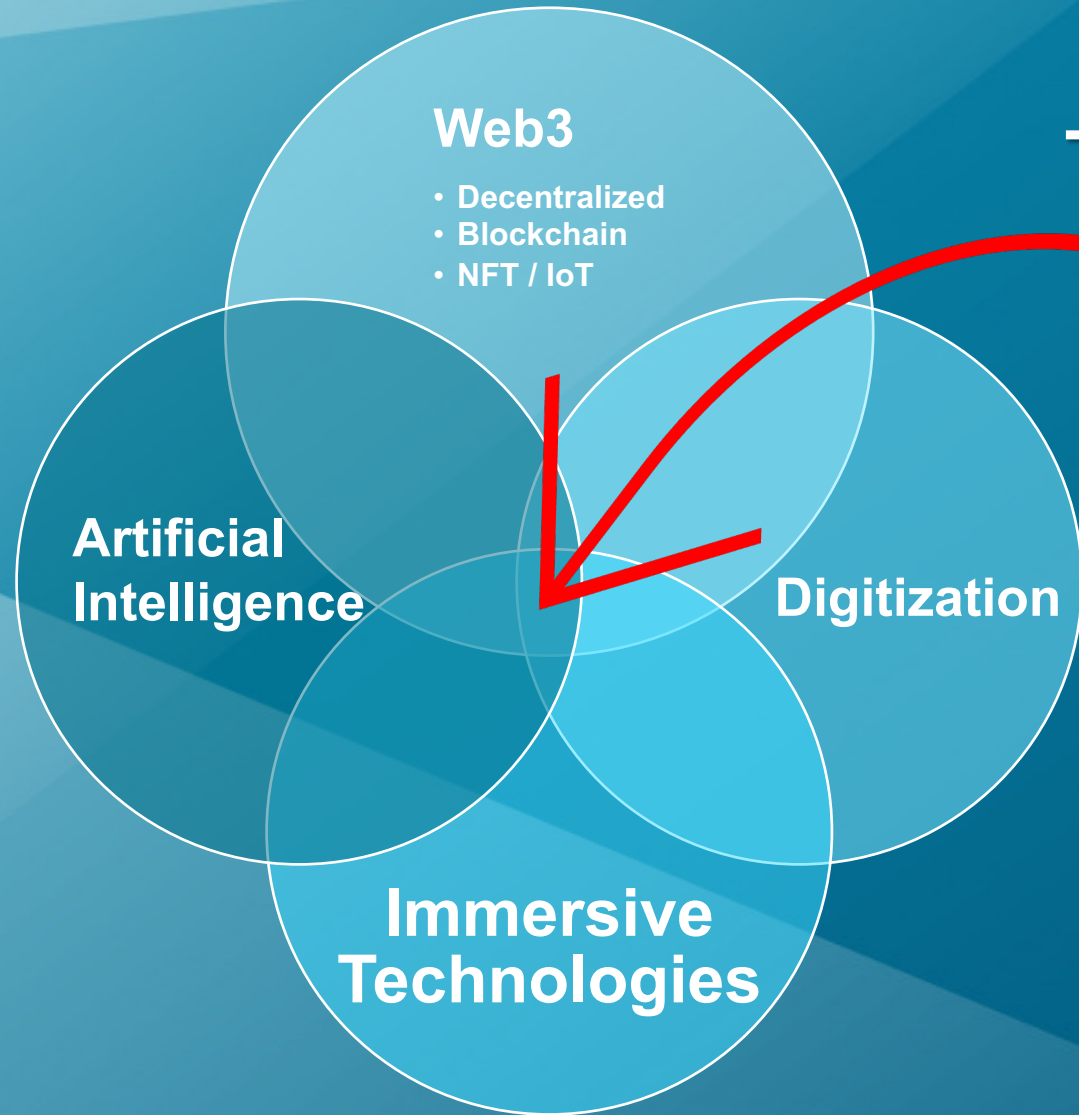
- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ More than 10 years
- ⊗ Obsolete before plateau
- As of August 2022

[gartner.com](https://www.gartner.com)

Source: Gartner
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Defining the Metaverse

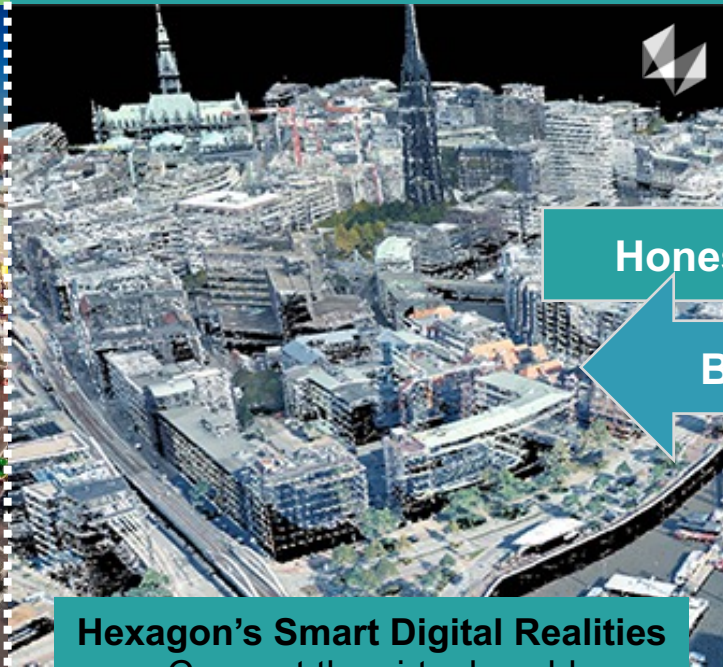


**The metaverse
is here!**

What is the Metaverse? A HxGN Perspective



Physical World
Real people, real places, real things



Hexagon's Smart Digital Realities
Connect the virtual world to real people, places and things

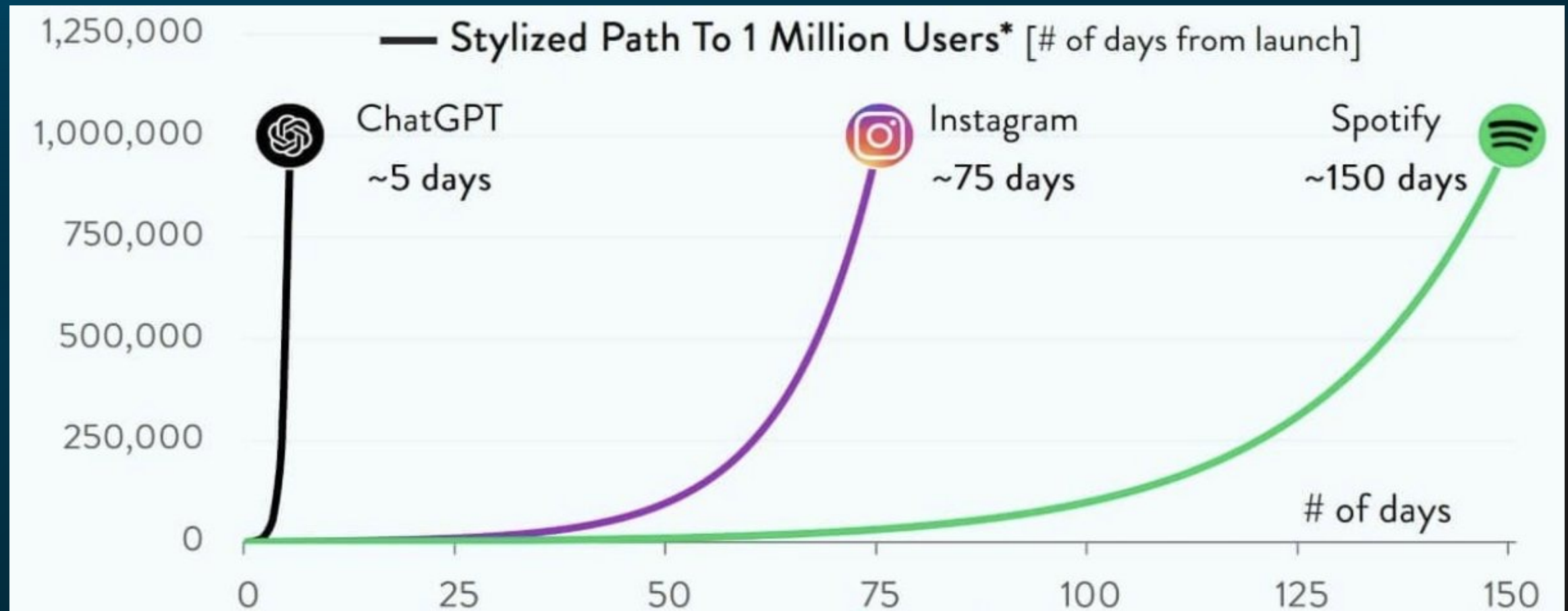


Virtual World
The can-be-anyone-anywhere-anything world



You've heard of ChatGPT right...?

User adoption of AI tools is going to be swift!



The construction industry has traditionally relied on 3D modeling and visualization to plan and execute building projects. With the advent of digital twin technology, a new approach to the construction lifecycle has emerged, transforming the industry towards a metaverse-based approach.

Digital twin technology creates virtual replicas of physical buildings, enabling real-time monitoring, analysis, and simulation of building performance, leading to optimized construction processes, reduced costs, and improved sustainability.

Digital twins provide a holistic and data-driven view of the entire building lifecycle, from design to operation, allowing for better decision-making at every stage.

Furthermore, the digital twin concept extends beyond individual buildings to encompass entire urban environments, forming the foundation of the metaverse. The metaverse is a virtual space that enables immersive and interactive experiences, and it is being leveraged to create virtual representations of entire cities, where digital twins of buildings and infrastructure are interconnected, allowing for real-time monitoring and management of the urban environment.

Reality Capture from the Air to Interiors



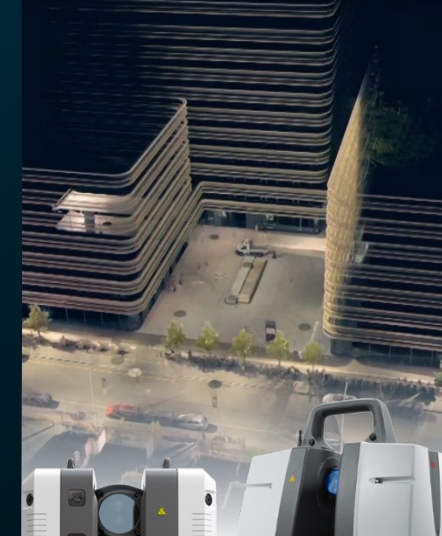
Airborne Mapping
HxGN Content Program



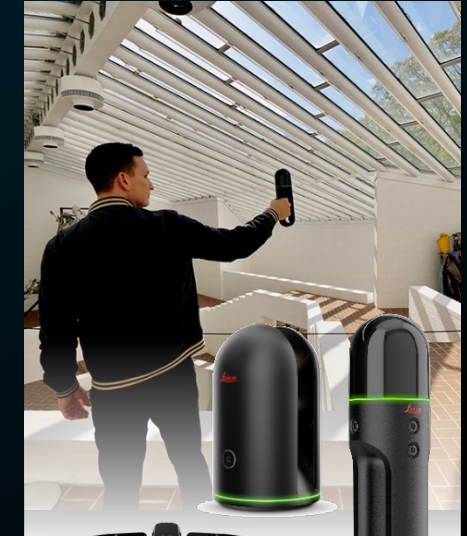
Mobile Mapping



Underground Mapping
Ground Penetrating Radar



High-End Scanning

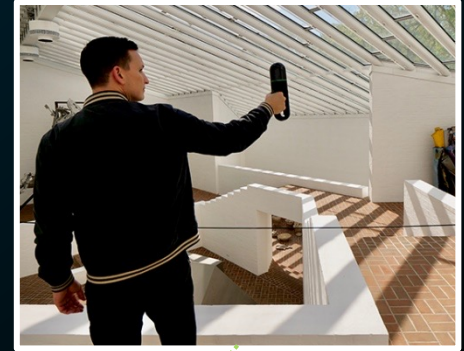
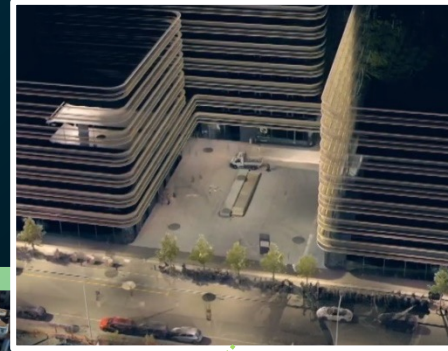
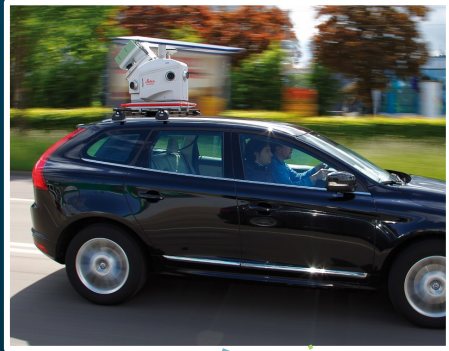


BLK: Reality-Capture
for Everyone



Leica BLK2FLY Data

Towards a Smart Digital Reality











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THANK YOU

