



# ITC Infotech's Metaverse SPECTRUM

Empowering Organizations with Immersive Technologies

# Introduction

Metaverse based solutions are revolutionizing industry verticals by creating immersive digital environments that facilitate collaboration, training and data visualization.

Metaverse SPECTRUM seamlessly merge the physical and virtual realm, unlocking opportunities for growth and efficiency for organizations in manufacturing, retail and hospitality industries

Advancements in user experience with AR/VR technologies, Edge-Cloud computing, Advance Analytics using AI and ML, technologies like Blockchain and high speed connectivity through 5G are helping accelerate adoption of Metaverse.

# Field of Play

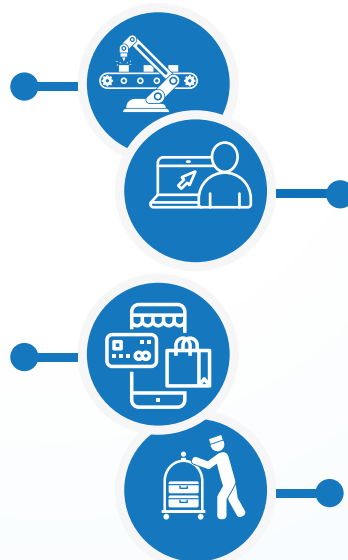
## ITC Infotech’s Metaverse SPECTRUM: Our Field of Play

### Metaverse SPECTRUM for Manufacturing

- > Process, Production and Asset Digital Twins
- > Plant Layout design and Optimization

### Metaverse SPECTRUM for Retail & Ecommerce

- > Metaverse based Ecommerce Shopping
- > Planogram and store Visualization
- > Digital Store



### Metaverse SPECTRUM for Learning

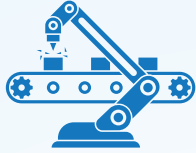
- > Workforce Training for Shop floor and field technicians
- > AR-VR based Instruction Manual
- > Remote troubleshooting of industrial assets

### Metaverse SPECTRUM for Hospitality

- > VR based Hotel Booking System
- > Restaurants on Metaverse
- > Virtual Travel Experiences

ITC Infotech’s Metaverse SPECTRUM delivers interactive and immersive experience through various offerings and brings in a variety of use cases by leveraging fast network, leading infrastructure and technological capabilities including Artificial Intelligence (AI), Blockchain, 5G, Augmented Reality (AR), and Virtual Reality (VR).

ITC Infotech’s Metaverse SPECTRUM offerings are as follows:



## Metaverse SPECTRUM for Manufacturing

Metaverse SPECTRUM for Manufacturing solution optimizes production time, factory layouts and processes in a manufacturing setup. The Metaverse SPECTRUM for Manufacturing use cases caters to the end-to-end value chain of a product, from research & design, manufacturing to after sales and product field support.



## Metaverse SPECTRUM for Learning

Metaverse SPECTRUM for Learning gives user an immersive learning experience for a variety of applications from manufacturing, assembly to instruction manual. This helps various personas to visualize the environment in virtual world making learning process easy and safe.



## Metaverse SPECTRUM for Retail & Ecommerce

Metaverse SPECTRUM for Retail & Ecommerce enables customers to virtual shopping experience through digital stores. For store managers and distributors of a product, ITC Infotech offers Planogram verification and store visualization through Metaverse.



## Metaverse SPECTRUM for Hospitality

Travel and Hospitality industry's digital transformation is achieved through Metaverse SPECTRUM for Hospitality. Metaverse-based hotel booking system gives customers an immersive view of their rooms before making reservations. Restaurants on Metaverse gives customer a state-of-the-art dining experience.



# Use Cases in Metaverse SPECTRUM for Manufacturing



## Digital Twin of an Aluminium Manufacturing Shop Floor

Digital twin of the assets and processes of the shop floor with accurate representation of Pot room and Cast-house operations for immersive user experience. Interactive solution allows users in quality checks and scenario simulations. Real-time business KPI dash-boarding for monitoring and necessary interventions.



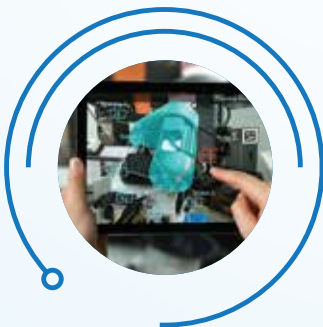
## Production and asset Digital Twin for Packaging Line (including simulation)

Digital twin of production line and assets helps in getting real-time insights and simulation of shop floor process to detect production bottlenecks and production issues in a timely manner. Combining real-time data from sensors, IoT devices and other sources with digital models provides a comprehensive view of performance of an individual asset and production line.



## Digital Twin of Bioreactor for Pharmaceutical Manufacturer

Pharma manufacturing process Digital Twin of bioreactors for Vaccine production line. Solution helps visualize in real time the cellular culture process & predict the cell concentration levels to enable insights and real time decision making. Visibility of real time process and equipment condition data enables remote production line management capabilities.



## AI-Powered Smart Pump

AI-Powered Smart Pump solution with integration to ChatGPT for generative AI. The solution provides real-time pump performance data visualization, thermal profiles, and interactive exploded/imploded views, empowering maintenance technicians with efficient troubleshooting and maintenance capabilities.



### **AR powered remote maintenance assistance**

AR Remote Assistant offers advanced AR - VR capabilities for remote collaboration and video communications. It allows experts and other technicians to collaborate in real time for solving a field problem. It delivers accurate instructions and share notes with the help of digital annotations on a virtual object to guide the technician remotely.

## **Use Cases in Metaverse SPECTRUM for Learning**



### **Metaverse based Work Force Training**

Metaverse based work force training provides virtual environment of physical shop floor assets and processes. X-Ray Vision feature allows operators to visualize and interact with the internals of machines for better understanding. Step by step guided maintenance helps operator to perform tasks effectively.



### **Metaverse based product user manual for automotive manufacturer**

Digital manual employing AR with model tracking capabilities. Enables users to interact with virtual products within their own environment. Easy to accommodate new product models and features.



## Use Cases in Metaverse SPECTRUM for Retail & Ecommerce



### Metaverse based Ecommerce Shopping

Metaverse based ecommerce shopping allows customers to preview products or experience services in their own environment, before deciding to make a purchase.



### Metaverse based Planogram & Store Visualization

Metaverse based Planogram tool allows retailers to allocate shelf spaces and simulate different layouts and floor plans. This reduces the need to visit the store and allows retailers to put themselves in the shoes of the consumers.



### Metaverse based Digital Store

Metaverse based Digital Store allows customers to virtually trial and customize the products in own environment, significantly increasing their confidence.

## Use Cases in Metaverse SPECTRUM for Hospitality



### Metaverse based Hotel Booking System

Metaverse based hotel booking solution allows customers to have a realistic view of the hotel room, making the booking process easier and improving customer satisfaction.



### Restaurants on Metaverse

Metaverse for Restaurants helps customers to visualize the menu in virtual environment with ingredients, portion of food, type of food and allergens before ordering the food.

# About ITC Infotech

ITC Infotech is a leading global technology services and solutions provider, led by Business and Technology Consulting. ITC Infotech provides business-friendly solutions to help clients succeed and be future-ready, by seamlessly bringing together digital expertise, strong industry specific alliances and the unique ability to leverage deep domain expertise from ITC Group businesses. The company provides technology solutions and services to enterprises across industries such as Banking & Financial Services, Healthcare, Manufacturing, Consumer Goods, Travel and Hospitality, through a combination of traditional and newer business models, as a long-term sustainable partner.

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