CELEBAL TECHNOLOGIES

Microsoft

3D Digital Twin
With
IT/OT Fusion & Conversational AI

Microsoft Copilot

Vision Speech Language Decision

Celebal Tech - Our Specializations and Strengths

Key Strategic Partnerships

Microsoft Solutions Partner

SAP Silver Partner

databricks Elite Partner

Red Hat Ready Business Partner

Advanced Specialization

- AI & Machine Learning
- Analytics
- Infra and Database Migration to Microsoft Azure
- Kubernetes
- Cloud Security

- Deep Domain Expertise
- ISD Approved Partner
- Azure Open AI industry driven Co-pilots.
- ECIF Green+ AMM + Azure Innovate
- AI Solutions To Help Retire AI Design Wins
- IP Co-sell Partner with Marketplace Transaction and MACC enabled Solutions

3000+ Employees

1500+ Azure Certification

800+ AI Experience Professionals

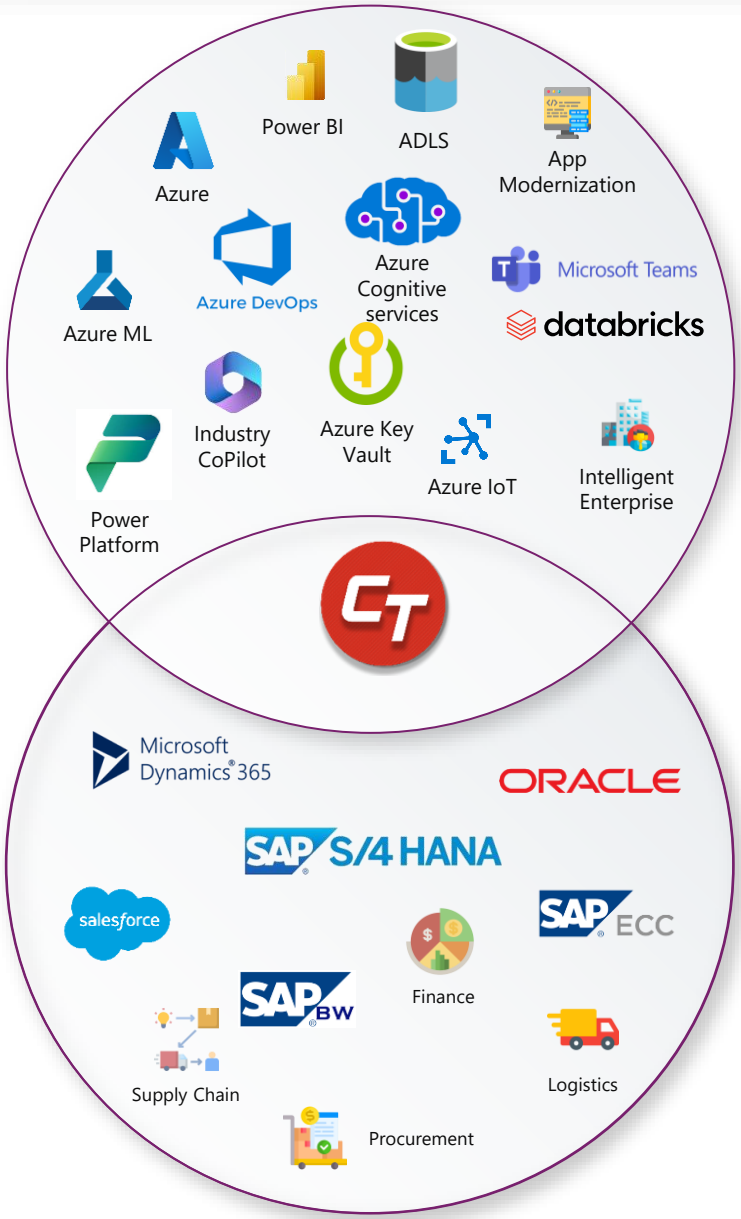
250+ SAP Experts

Industries We Serve Globally

Manufacturing | Retail & CPG | Financial Services | Energy & Sustainability | Healthcare & Life Sciences | Media & Entertainment

US | INDIA | EUROPE | CANADA | APJ | MIDDLE EAST | AUS

Traditional Enterprise meets Modern Cloud Innovation



- Deep Domain Expertise
- Open AI industry driven Copilots
- Premium Partner for SAP Extend and Innovate
- ECIF Green & Azure Innovate and AMM Cert.

Core Pillars

- Partners with Microsoft Research
- IP Cosell Partner with Marketplace Transaction
- MACC enabled Solutions
- ISD Approved Partner

Gen AI Powered Industry Copilots

SAP Extend & Innovate

Industry Data Models

Migrations & Lakehouses (non-SAP)

Low Code – No Code Platform

Infrastructure

Security

Business Value for 3D Digital Twin with IT/OT Fusion & Conversational AI

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Business Challenge

- Expanding the Digital Twin solution across various data sources
- Delays in detecting machine failures, bottlenecks, and inefficiencies
- Maintaining real-time alignment between the physical factory floor and its digital twin

Solution

Revolutionize factory operations with a real-time 3D Digital Twin platform that unifies IT and OT data through a process information model, delivering immersive 3D visualizations, intelligent dashboards, real-time performance insights, and AI-powered chat for quick, smarter decision-making

User Benefits and Value Creation

- Unifies IT and OT data for a single source of truth
- Provides real-time insights into production KPIs.
- Enhances decision-making with contextual analytics.
- Reduces downtime through early anomaly detection.
- Supports AI-powered chat for instant operator assistance.
- Facilitates what-if analysis for operational planning.
- Delivers intuitive dashboards
- Scales easily with cloud-native architecture
- Enhances safety with virtual simulation of hazardous scenarios
- Chatbot provides context-aware responses for smarter operational decisions

Solution Features

Seamless IT & OT Data Integration

Unify operational insights by integrating MES, ERP, sensors, and PLCs

Real-Time Data Visualization

Show live ops data—throughput, WIP, scrap, and machine performance—via an intuitive 3D interface

Interactive 3D Model Navigation

Enable zoom, rotate, and interaction with digital twin for deep analysis

AI chatbots provide holistic, operational intelligence

Speed up fault detection with a conversational interface that simplifies data access

Customer Key Facts

Implementation Cost
$250k

ROI

- 15 to 25% Improvement in Decision-Making Speed
- 20 to 30% Increase in Data Visibility
- 20 to 35% Increase in Equipment Utilization

Data Used

- ERP Data
- MES Data
- PLC Data
- Alert Logs
- USD data models
- Documents

Overview of Solution for Fusion of IT & OT in Omniverse on Azure

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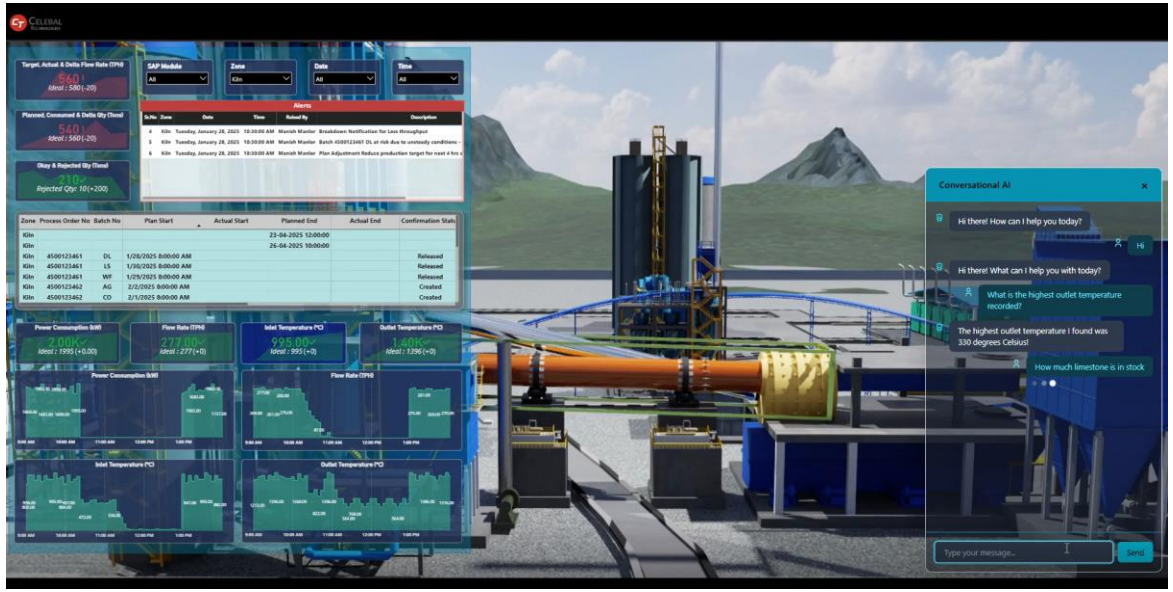
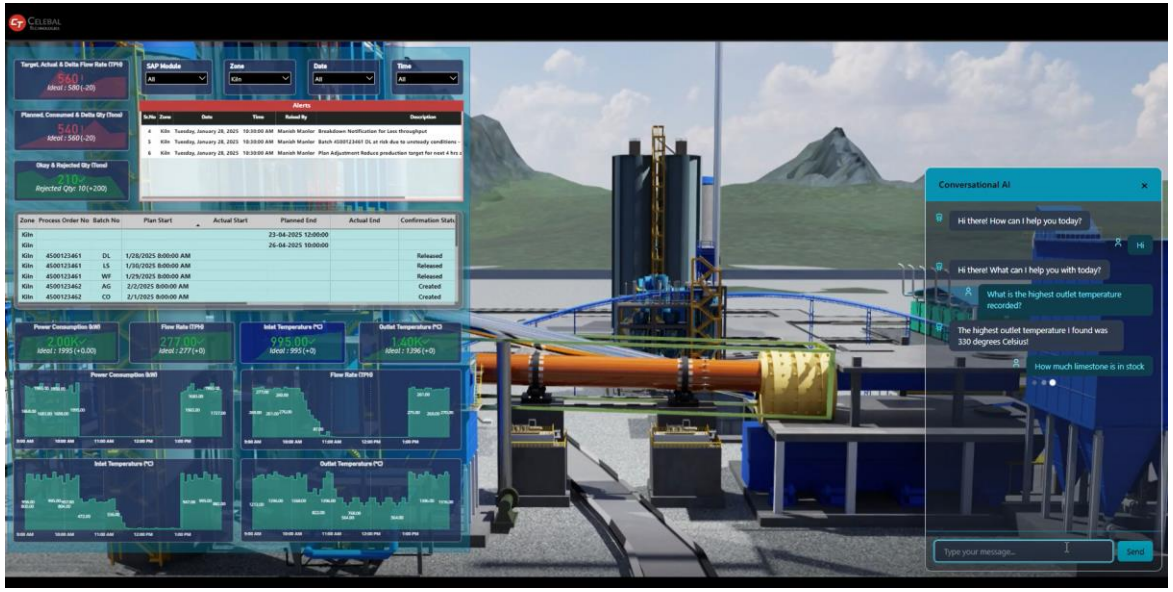
	Visualization	Technology	Values	Implementation Cost	ROI
Seamless IT & OT Data Integration	Web/MS Teams/ Mobile Enabled	Azure IoT Operations Azure Event Hub	Unify operational insights by integrating MES, ERP, sensors, and PLCs	$250k	• 15 to 25% Improvement in Decision-Making Speed • 20 to 30% Increase in Data Visibility • 20 to 35% Increase in Equipment Utilization
Real-Time Data Visualization		Power BI Real Time Intelligence	Show live ops data—throughput, WIP, scrap, and machine performance—via an intuitive 3D interface		
Interactive 3D Model Navigation		NVIDIA Omniverse Kit Streaming	Enable zoom, rotate, and interaction with digital twin for deep analysis		
AI chatbots provide holistic, operational intelligence		Azure OpenAI Azure Cognitive Search Azure Bot Services	The chatbot enables context-aware, conversational access to real-time factory insights		

** Hybrid Delivery Resources **

Value for Production Manager

- Real-time visibility into production KPIs and machine status.
- Reduced downtime through proactive anomaly alerts.
- Unified IT and OT view for better decision-making.
- AI-powered chat for instant data access and insights.
- Increased production efficiency with data-driven actions.
- Easy what-if simulation for operational planning.
- Visual tracking of throughput, WIP, and scrap rates..
- Reduced manual data gathering and report generation.

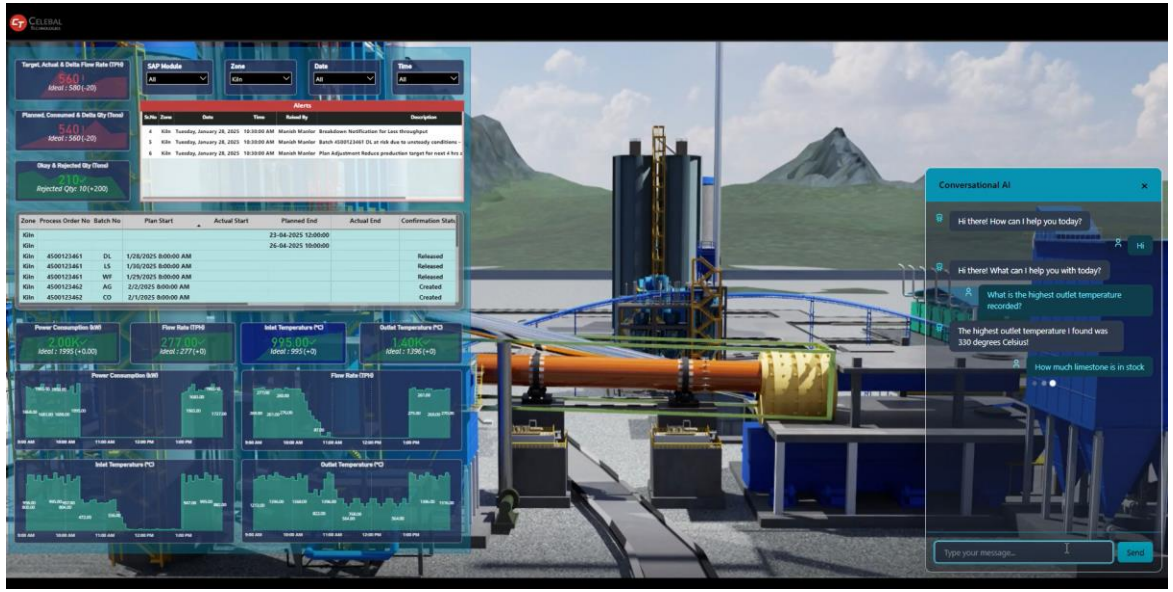


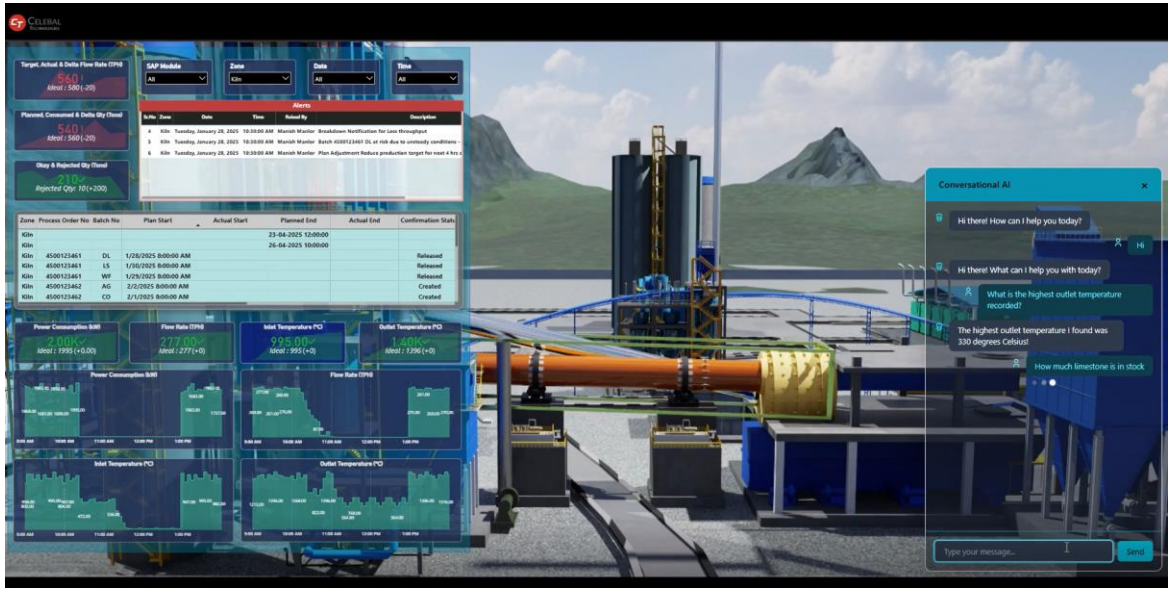


A strategic leader responsible for overseeing manufacturing operations, optimizing production efficiency, ensuring quality standards, and aligning processes with business objectives

Value for Maintenance Manager

- Real-time 3D visualization of equipment with health indicators
- Single-pane view of asset status, maintenance history, and upcoming service schedules
- NLP-powered summarization of past incident logs and technical reports
- Get instant downtime reasons through AI-analyzed data
- Get alerts when equipment deviates from safe operating thresholds
- Reduce spare parts hoarding with real-time inventory visibility and usage trends





A proactive leader responsible for maximizing asset reliability, minimizing equipment downtime, and driving predictive maintenance strategies to ensure seamless, safe, and cost-effective operations across the plant

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Thank You