TCS Digital Manufacturing Platform

A Neural Manufacturing™ Solution

Accelerate your journey to acquire 'Digital Intelligence' and reimagine your plant operations to be 'future ready by design'

Business Opportunities

01 High unplanned downtime and high maintenance cost remain 2 of the major challenges for efficient plant operations. These are complemented by asset reliability issues, non-optimal maintenance frequency and sub-optimal spares management.

03 Manual management of workforce often leads to low operational efficiency due to the lack of proactive training enablement. This also limits plants capability have well-rounded safety and workforce monitoring procedures in place.

02 Lack of real-time visibility on the shop floor hinders operational efficiency of plants. What adds to this hindrance are the siloed plant functions. This often leads to greater concerns amounting to below-par energy optimization and inconsistent product quality.

04 High response time for market changes is a means of disruption for many suppliers. Lack of digital traceability and no real-time visibility of their capacity continue to be a major pain point for them.quality.

TCS Digital Manufacturing Platform

DMP is the digital thread binding the connected assets, operations, supply chain and workers into a seamless neural fabric for your competitive advantage.

Connected Assets

- Condition-Based Maintenance (CBM)
- Predictive Maintenance
- Realtime Asset Tracking
- AR/VR based Guided Maintenance
- 3D Twin

Connected Operations

- Manufacturing Performance Management
- SPC Analysis
- Production Schedule Optimization
- Process TWIN
- AR Assisted Production & Manufacturing
- Operation Centerlining

Connected Workforce

- Worker Tracking & Safety
- Environment Monitoring
- Operator Assistance
- Workforce Planning
- Digital Workforce Management & Training

Connected Supply Chain

- Material Tracking (Receipt, WIP, Picking, Put away & Loading)
- Real Time Inventory View
- Digital Traceability
- Inventory Optimization
- Spare Part Optimization

Key Differentiators

TCS DMP is the first solution in the market that enables clients traverse a seamless journey of business capabilities from digitization to digitalization and digital transformation. With our proposed market differentiators, we seek to design the holistic solution to achieve the goal of the future factory.

- Maturity Model Based Progression
- Orchestrate the capabilities to define your own journey
- Modular structure enabling add-on capabilities
- Transformation Themes Enablement: LEAN, Virtual, Paperless, etc.

- Industry specific capability realization map
- Defined Integration structure with ERP, MES, and Factory Automation Layers
- Finite schedules for deployment based on industry standard definitions ROI Model to drive value

Benefits

1. Up to 20% improvement in resource productivity and safety
2. Up to 10% optimized supply chain cost
3. Up to 20% improved equipment uptime
4. ~40% reduction in development time and cost to realize smart manufacturing capabilities
5. Almost 2X faster time-to-scale
6. Up to 10% reduction in manufacturing cost