



## Transforming Legacy Tyre Manufacturing Into a Smart Factory With **Cantier MES X.0**

Cantier MES X.0 empowered a 25-year-old tyre manufacturing facility into a smart factory, enhancing production capacity, traceability, and operational efficiency while aligning with Industry X.0 standards.

## Client Background

### Client

Leading Tyre Manufacturer

### Industry

Automotive Tyre Manufacturing

### Products

High-Performance Tyres For Automotive Sector

### Area of Operations

Global

## Key Indicators

**Connected over 250 machines** through IIoT for real-time data flow.

**Improved traceability and error-proofing** across production stages.

**Reduced downtime** with proactive maintenance measures.

# Battling Industry X.0 Potential in Tyre Manufacturing

## Challenges

A prominent tyre manufacturer aimed to modernize its 25-year-old plant to meet increasing production demands. The goal was to scale up production to 20,000 tyres daily while ensuring product traceability and quality compliance. However, the plant faced challenges integrating older machinery with diverse control systems and limited automation capabilities.

Furthermore, the client required a centralized data repository to efficiently monitor and manage performance across multiple facilities. They aimed to minimize capital expenditure while ensuring seamless collaboration across factory processes.

## Powering Tyre Manufacturing Transformation

### Solutions

Cantier MES X.0 provided an intelligent, scalable solution to modernize the tyre manufacturing plant, addressing challenges across

- **Intelligent Machine Connectivity**

Cantier MES X.0 connected over 250 machines through IIoT Edges, facilitating seamless data flow and real-time communication across diverse factory equipment. This integration enabled centralized monitoring and enhanced process efficiency.

- **Enhanced Work-in-Progress Tracking**

The deployment of a WIP module offered full traceability and genealogy for tyre production. This included real-time tracking and error-proofing, supported by advanced dashboards for actionable insights.

- **Optimized Maintenance Management**

Cantier implemented a CMMS module that tracked Maintenance KPIs, including MTTR, MTBF, and MTBA. This proactive approach minimized downtime and enhanced overall equipment effectiveness.

- **Advanced Quality Control With SPC**

The SPC module provided continuous monitoring and closed-loop control over key in-process quality parameters. This ensured consistent product quality and reduced defects in production.

- **Agile Implementation for Efficiency**

Cantier employed Agile Application Management processes to ensure timely delivery and adherence to budget constraints. This approach provided flexibility to adapt to evolving project requirements.





# Unlocking Potential Through Smart Factory Innovation

## Impact

Cantier MES X.0 transformed the tyre manufacturing facility into a smart factory, improving efficiency, quality, and scalability while positioning it for long-term growth and competitive advantage.

- Seamlessly connected 250+ machines for centralized and real-time operational insights.
- Improved traceability reduced errors and ensured compliance with stringent quality standards.
- Reduced downtime through proactive maintenance management, boosting equipment reliability.
- Continuous quality monitoring with SPC ensured consistency and minimized defects.
- Agile processes ensured the project remained on schedule and within budget, demonstrating cost-effective scalability.

Cantier MES X.0 has been instrumental in transforming our legacy facility into a smart factory. The seamless machine integration and real-time insights have elevated our efficiency and significantly boosted production capacity.

**- Key Stakeholder -**  
Leading Tyre Manufacturer

