



#### Introduction

# Build your next generation of closed-loop intelligent factories.

Take a transformative leap in agile and resilient manufacturing ecosystems. Experience the next generation of intelligence-driven manufacturing automation with Cantier MES X.O. Integrating advanced digital MES technologies, Cantier MES X.O leverages Artificial intelligence of Things to analyse real-time factory-floor data streams for actionable insights that enable a generational change in manufacturing visibility, traceability, adaptability and control.

### Why choose Cantier MES X.0?

Globally, Cantier places the highest emphasis on MES implementation. Intelligence is placed where it matters most - at the heart of your workflow operations. The Cantier MES X.0 solution is built on a flow-based and micro-service architecture that offers unprecedented flexibility. By integrating Cantier MES X.0 with shopfloor services, you can utilise data in the efficient execution of manufacturing operations across production, quality, inventory, and maintenance, in a seamless, customizable way. This intelligence-first approach ensures that you can quickly adapt your manufacturing to changing demands while maintaining high levels of efficiency, compliance and precision.





# Create intelligent closed-loop operations.

Cantier MES X.0 can drive the new generation of closed-loop systems that are powered by real-time digital data and intelligent orchestration to streamline workflows from start to finish. With the analysis of information that drives actionable insights, your manufacturing can gain total spatial awareness for tighter quality control, faster process adjustments, and smoother executions, making your manufacturing operations more efficient, resilient and responsive.



# **Gain shopfloor control with a predictive Edge-Based AloT Platform.**

Cantier MES X.0 is designed to close manufacturing technology gaps now and in the future. It leverages an intelligent AloT design to analyse data, deliver predictive insights and enable early intervention to prevent disruptions. The platform's intelligent edge can read patterns, predict imminent equipment failure and optimise maintenance schedules before any issue impacts productivity and safety. This predictive capability ensures that equipment stays in top form, allowing you to run manufacturing operations with greater reliability, increased performance outcomes and reduced unplanned downtime.



### Depth of traceability and genealogy.

Embedded with Digital Twin technology, Cantier MES X.0 offers your manufacturing controllers a high degree of spatial awareness across workflows. It enables precise Track and Trace operations with deep detail across your production and product lifecycle. This genealogy tracing feature ensures that every aspect of the product is accounted for, and enables quick root-cause analysis, while maintaining compliance standards, thereby supporting quality assurance and transparency.



### Distributed location production orchestration.

In an age of growing production location diversity, Cantier MES X.0 provides a unique level of flexibility. The solution can drive production orchestration across multiple sites, providing an incredibly detailed and unified view of operations. The broad-base orchestration capability allows you to adjust workflows dynamically and optimise resource allocation, while ensuring consistent production quality and performance, no matter where your production facilities are located globally.



# **Catch production anomalies automatically!**

Instead of time lags in reacting to production process dysfunction or failure, you can now catch anomalies long before they impact your production, quality or delivery schedules. Cantier MES X.0 integrates real-time anomaly detection to minimise the probability of disruptions. Using intelligent alerts and contextual data analysis, your manufacturing managers can respond instantly to production anomalies, prevent quality issues and maintain delivery schedules with minimal impact on timelines, resources or costs.



# Synchronize digital factories automatically.

MES X.0's execution-driven synchronization optimizes digital workflows, reducing wait times and eliminating unnecessary delays. This helps you streamline your manufacturing processes and focus on value-added activities, boosting productivity and overall shopfloor performance.



# **Centralized Equipment Control Tower**

If you are looking for ways to optimise maintenance for availability versus ever increasing costs, Cantier MES X.0 gives you advanced capabilities. The Control Tower leverages Generative AI to analyze historical and real-time equipment data, generating predictive maintenance schedules and automated recommendations. This helps balance cost and availability, minimizing downtime and extending equipment lifespan.



# Drive performance and innovation with Immersive Digital Twin.

Replicate your physical shopfloor assets and systems in a digital environment. Gain a whole new range of spatial awareness with the immersive Digital Twin capabilities of Cantier MES X.0. The augmented digital technology, enables enhanced digital visualisations that allows you to monitor, analyze, and optimize performance by modelling scenarios and predicting outcomes. You can simulate changes, foresee disruptions, and proactively adjust workflows, driving smarter actions and elevating factory performance.

# Benefits for your manufacturing business

### Deliver productivity with optimal resources.

Achieve flawless deliveries for your manufacturing busienss by maximizing resource utilization and maintaining precise control over production right across the shopfloor.

### Enable quality in process and by design.

Integrate quality at every stage, ensuring consistency and compliance through proactive process management enabled by a responsive intelligence and insight driven system.

### Balance cost with adaptability to changes.

Optimize costs while maintaining the flexibility to adapt swiftly to shifting production demands without undue challenges.

### Elevate engineering for accelerated innovation

Drive faster innovation cycles by empowering engineering teams with advanced tools and real-time insights that enable quicker responses and decision making.

### **Elevate your performance horizons with Cantier.**

Harness AI-powered, next-generation Manufacturing Execution Systems (MES), from an industry leader that is redefining the landscape of intelligent factories. With a focus on creating closed-loop manufacturing systems that leverage artificial intelligence, IoT, and sophisticated data analytics, Cantier is creating powerful digital technology solutions that streamline production processes, improve control and enhance operational efficiency. Our aim is to make factories smarter, faster and more productive beyond Industry 4.0.

Headquartered in Singapore, Cantier brings together over 200 years of technology leadership experience to empower digitally driven industries in semiconductor, electronics, automotive, and aerospace.

Our next generation Cantier MES X.0 solution has been designed to raise the bar on capabilities by seamlessly integrating legacy and modern manufacturing environments to provide real-time operations visibility, predictive decision support, and autonomous actions.

As a global digital manufacturing technology leader, Cantier is committed to accelerating digital transformation through innovative, customer-centric technology solutions that drive operational excellence and sustainable growth. We are forging a new future for advanced manufacturing where agility, precision, and intelligence lead the way.

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