



WHITEPAPER · MACHINE

Why Most Plants Have Five Dashboards and Zero Answers

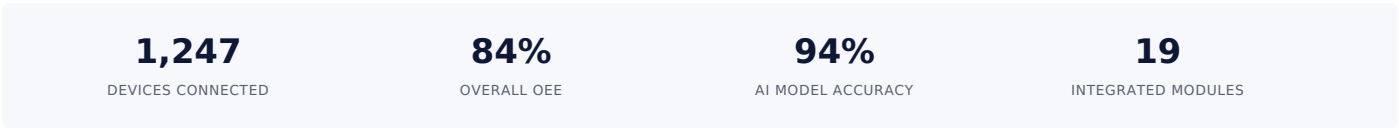
An IIIOT Infotech analysis, grounded in deployment data from Veda Industrial IoT Platform implementations.

IIIOT INFOTECH · BUILDING CONNECTED SUSTAINABLE ECOSYSTEMS

THE PROBLEM

Where this starts

Most plants run OEE tracking, energy metering, quality inspection, safety monitoring and maintenance on five different point tools that don't talk to each other — so a single anomaly (a vibration spike, say) never automatically becomes a work order, an energy alert, or a line in the CEO's dashboard.



Figures reflect outcomes reported across comparable Veda deployments.

What's actually going on

The point-tool problem

Ask a plant manager "is the line healthy right now?" and the honest answer usually requires opening the SCADA screen for machine status, the energy meter portal for consumption, a separate quality system for defect rates, a paper safety log, and a spreadsheet for maintenance schedules. Each tool is individually fine. Together, they guarantee that the one signal that actually matters never gets seen, because no human is watching five screens at once.

What a single data model actually changes

Unifying assets, energy, quality, safety and maintenance under one data model doesn't just save screen-switching time. It means a rule engine can fire on cross-domain conditions no single tool could see: an energy spike plus a vibration anomaly plus an aging maintenance ticket, correlated automatically, escalated once, to the right person.

The connectivity reality: you don't replace your SCADA

A common objection is "we already have a SCADA/PLC investment, why add another layer?" A unified IIoT platform should sit alongside existing SCADA and PLC infrastructure via OPC-UA, Modbus, and MQTT — reading from it, not replacing it — adding the cross-system correlation and AI layer SCADA was never built to do.

What good practice looks like

Where AI earns trust: 2-4 week early warning, not black-box replacement

Predictive maintenance done well gives a maintenance planner a 2-4 week warning window before a likely failure. Done badly, it's a black box that occasionally cries wolf and gets ignored. The difference is whether the model's confidence and reasoning are visible, and whether false positives get tracked and fed back into retraining.

What good deployment discipline looks like

Plants that get real OEE gains share a pattern: they instrument one line fully before scaling, insist on live dashboards the floor supervisor actually opens, and treat the first 60-90 days as a data-quality exercise before trusting any AI-driven alert.



HOW IIIOT HELPS

Veda Industrial IoT Platform

One single pane of glass for assets, operations, energy, quality, safety, AI and connectivity — from shop-floor sensor to boardroom dashboard.

Single Data Model

One model spans assets, energy, quality, safety and maintenance — no siloed point solutions bolted together after the fact.

Native AI/ML

Predictive maintenance, anomaly detection and energy optimisation are built into the platform, not add-ons stitched on top.

Open Connectivity

OPC-UA, Modbus, MQTT, REST, plus native SAP, MES and CMMS integration — connects to what you already run.

Digital Twin

A live digital twin per asset and process detects real-time divergence — not a static 3D model that goes stale.

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