WHITEPAPER · MATERIAL

The 7-Day Recall: What Manual Traceability Actually Costs

An IIIOT Infotech analysis, grounded in deployment data from End-to-End Traceability Platform implementations.

IIIOT INFOTECH · BUILDING CONNECTED SUSTAINABLE ECOSYSTEMS

THE PROBLEM

Where this starts

When a quality issue surfaces in the field, most manufacturers need 4-7 days of manual paper-trail investigation to determine exactly which batches, machines and shipments are affected — days during which the recall scope, and the cost, keeps growing.

<30 min	35% less	20% less	28% more
BATCH RECALL TRACE TIME	QUALITY REJECTION RATE	WIP REDUCTION	OEE IMPROVEMENT

Figures reflect outcomes reported across comparable Traceability Platform deployments.

ANALYSIS

What's actually going on

Why recall scope grows every day the investigation takes

In a quality event, recall scope isn't fixed at the moment of discovery — it grows every additional day the investigation takes, because more product has typically shipped in the meantime. A 4-7 day manual trace doesn't just cost investigation time; it costs the incremental shipments that go out uninvestigated while the trace is still running.

What an unbroken digital thread structurally changes

QR/RFID scanning at every stage creates a genealogy that doesn't need to be reconstructed after the fact, because it was captured as a byproduct of normal operations. This is the core structural difference from paper-based systems, which only create a trace when someone deliberately goes looking for one.

ANALYSIS, CONTINUED

What good practice looks like

The quality rejection rate connection

A 35% reduction in quality rejection rate isn't a separate benefit from traceability — it's a downstream effect of parameterised quality gates with Approve/Hold/Reject workflows catching issues at the point of production rather than at final inspection, where the cost of a defect is already much higher.

Why inventory reduction is the tell that trust was the real problem

When WIP and inventory levels drop 18-22% after a traceability rollout, it's rarely because less material is genuinely needed — it's because teams that didn't previously trust their own inventory visibility were holding buffer stock as insurance, and real-time visibility removes the need for that insurance.

HOW IIIOT HELPS

End-to-End Traceability Platform

A unified, scan-based manufacturing intelligence platform tracking every batch from raw material through WIP, quality inspection, finished goods and dispatch.

QR/RFID at Every Stage

Real-time tracking from raw material inward through WIP process to finished goods and dispatch — an unbreakable digital thread from supplier to customer.

Quality Gate Workflows

Parameterised grading with digital Approve/Hold/Reject decisions and evidence capture at every quality checkpoint.

AI-Powered & Rule-Based Alerts

Predictive and rule-based alerts flag anomalies — shelf-life risk, missing sync, quality deviations — before they become bigger problems.

Full Lineage & Compliance Reports

One-click audit-ready reports covering full lineage, OEE, rejection trends, and compliance export.

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