



WHITEPAPER · MATERIAL

The Real Cost of a 2-3% Dispatch Error Rate

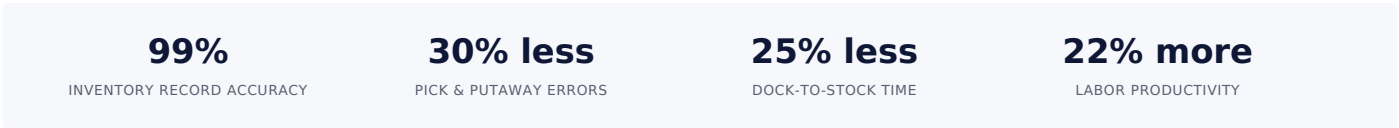
An IIIOT Infotech analysis, grounded in deployment data from Smart Warehouse Management Platform implementations.

IIIOT INFOTECH · BUILDING CONNECTED SUSTAINABLE ECOSYSTEMS

THE PROBLEM

Where this starts

Manual stock location searches take 15-30 minutes, cycle counts require a full shutdown for 2-3 days, and 2-3% of shipments still go out wrong — because most warehouses are tracking inventory with periodic manual checks instead of continuous sensor and vision confirmation.



Figures reflect outcomes reported across comparable Smart WMS deployments.

What's actually going on

A number that looks small until you do the math

A 2-3% wrong-shipment rate sounds tolerable until you multiply it against dispute resolution time, return freight, customer trust, and the finance team's time reconciling chargebacks. For a warehouse shipping thousands of orders a month, that's a recurring, largely invisible cost center.

Why manual verification can't close the gap

Manual load verification relies on a human checking a packing slip against a truck's contents under time pressure at the dock. It's not a training problem — humans are structurally bad at exhaustive matching tasks done thousands of times a week. Vision-based verification checks every load the same way, every time, with a timestamped record.

The compounding effect of inbound errors

A picking error at putaway doesn't stay a putaway error — it becomes a cycle-count discrepancy, then a stockout or overstock, then a dispatch error to a customer. This is why the highest-leverage automation investment is almost always at the inbound stage.

What good practice looks like

What continuous cycle counting changes structurally

Traditional cycle counts require shutting down a section of the warehouse for 2-3 days — a cost most operations only tolerate quarterly, meaning inventory records can drift for months between corrections. IoT-sensor-driven continuous counting removes the shutdown requirement entirely.

What good looks like, quantified

Warehouses combining vision-verified picking, smart cartonization, and vision-verified dispatch report inventory accuracy above 99%, pick accuracy above 99.7%, and dispatch error rates below 0.3% — a roughly 90% reduction from typical manual-process baselines.



HOW IIIOT HELPS

Smart Warehouse Management Platform

IoT and video-analytics-powered warehouse intelligence — end-to-end visibility from dock to dispatch.

Vision-Verified Picking

System-directed pick paths minimise travel distance, with a camera confirming item and location match at every single pick.

Smart Cartonization

A cartonization engine recommends the right carton to cut dunnage waste, with an IoT scale validating weight before sealing.

Vision-Verified Dispatch

Load verification before trailer seal, automatic gate-out logging via license plate recognition, and full dock-to-delivery lineage generated on dispatch.

Warehouse Control Tower

Real-time, location-level stock visibility across every zone; live and recorded camera feeds across dock, aisles and yard with AI-flagged events.

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