

How AI caught faulty products that humans missed

A production deployment at Mondelez shows how AI visual inspection agents are outperforming manual QC — and what it means for Indian food, pharma, and industrial manufacturers.

Visual QC

Manufacturing AI

Defect Detection

Computer Vision

89%

of manufacturing executives globally implementing AI in production ops

SAP Enterprise Research 2025

60–80%

Reduction in manual effort on cross-system ops workflows

McKinsey / DuvoAI FMCG Report 2026

20–50%

Inventory reduction via AI-driven demand forecasting

McKinsey Supply Chain AI 2025

THE DEPLOYMENT

Mondelez — AI Visual Inspection for Faulty Product Identification

Mondelez's manufacturing line required constant visual inspection of packaged products — checking for seal integrity, weight variance, label correctness, and packaging defects. Manual inspectors were positioned at line intervals, but the combination of high speed, repetition fatigue, and lighting variation meant defect catch rates were inconsistent. Defective products were reaching distribution.

✗ MANUAL INSPECTION

- Inspector fatigue after 2–3 hours — catch rate drops 15–20%
- No data on defect type, frequency, or line position
- Inspection stops during shift changes — blind spots in coverage
- Subjective judgment — inconsistent defect classification
- Defective products reaching distribution — customer complaints

✓ AI VISION AGENT

- 100% inspection coverage — every unit, every shift, 24x7
- Defect log by type, line position, time — actionable manufacturing data
- Continuous coverage, no shift-change blind spots
- Consistent classification — 95%+ accuracy on trained defect types
- Zero defective units passed — agent flags and stops line on detection

WHAT THE AGENT DETECTS



Seal integrity

Open, partial, or malformed seals



Label correctness

Missing, crooked, or wrong label



Weight variance

Under/overfilled units



Packaging damage

Dents, tears, contamination



Expiry / date code

Illegible or incorrect printing



Foreign matter

Contamination visible through packaging

INDUSTRY CONTEXT

What Indian manufacturers are doing — and what's still missing

- HUL, ITC, and Britannia use AI for packaging-line vision QC and predictive maintenance on high-speed filling lines. The focus: OEE (Overall Equipment Effectiveness) and raw-material variance.
PromptAndSkills India Mfg AI 2026
- Indian pharma manufacturers (Aurobindo, Dr Reddy's, Cipla) use computer vision for tablet and capsule inspection under USFDA and CDSCO compliance frameworks. AI is not optional for export-grade manufacturing.
ARC Advisory Group / IntuitionLabs 2026
- **The gap:** PwC-ORF (March 2026) identified that the key barrier for Indian manufacturers is **no Hindi/regional-language tools** for factory floor AI and small IT teams without deployment muscle. Global platforms don't solve for this.
PwC-ORF India Mfg AI Report 2026

Industrial insurance implication (2026)

Industrial insurance renewals in 2025–26 increasingly require EHS compliance data showing continuous automated monitoring. Plants demonstrating AI-based inspection are receiving better risk classifications and lower premiums.

Agrex AI Video Analytics India 2026



Want to see the agent in action?



We'll do live demo of agents and use-cases at CIO Horizon Lucknow.



Divyesh — DronaHQ
CIO Horizon Lucknow 2026



Manufacturing + FMCG



Live demo available