

NESTLÉ INDIA  
CONSULTING

Strategic  
Recommendations — Oct  
17, 2025 — 15% cost savings

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# Executive Summary



Problem: Demand spikes up to 30%;  
Logistics costs +15% (~₹500 Cr waste)



Solution: LSTM forecasting (MAPE ~7%)  
Plus LP & VRP for inventory and  
routing



Impact & Recommendations: 15% cost  
savings (~₹75 Cr), 95% service  
Operational: 15% buffer, 25% Q4 pre-  
stock





# Problem Statement

- Demand swings: +30% spikes / -25% dips across SKUs.
- Logistics & inventory pressure: 20% delivery delays; 14–20% overstock; costs up 15%.
- Objective: Achieve 15% cost reduction while maintaining 95% service level.



# Approach — Data & Forecasting



- Data: 590 rows (Kaggle + internal sources); recent 30% uplift captured in features.

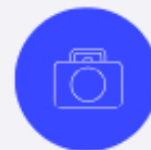


- Model: LSTM achieving 7% MAPE versus SARIMAX at 12% MAPE on holdout.



- Output: 6-month SKU × store forecasts with weekly refresh and automated retrain.





## Approach — Optimization



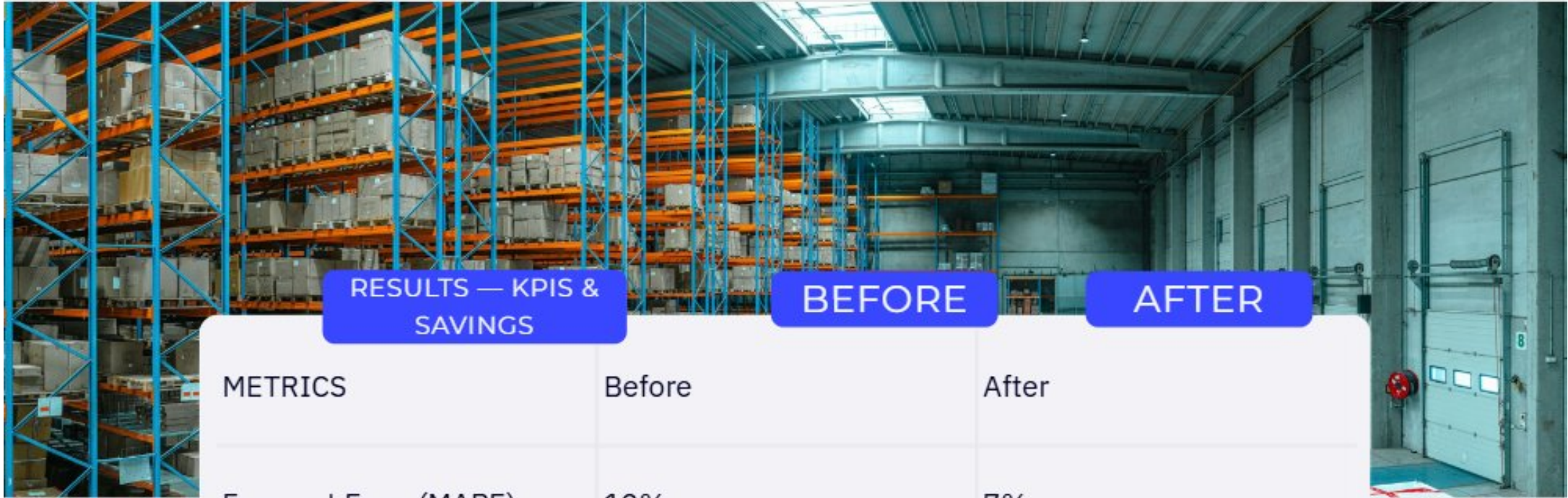
Inventory LP — 15% safety  
buffer; approximately 50%  
reduction in holding costs.



- Routing VRP/LP — multi-hub design delivering ~10% scale efficiencies.
- Stress testing — +8% surge scenarios mitigated using buffer policy.







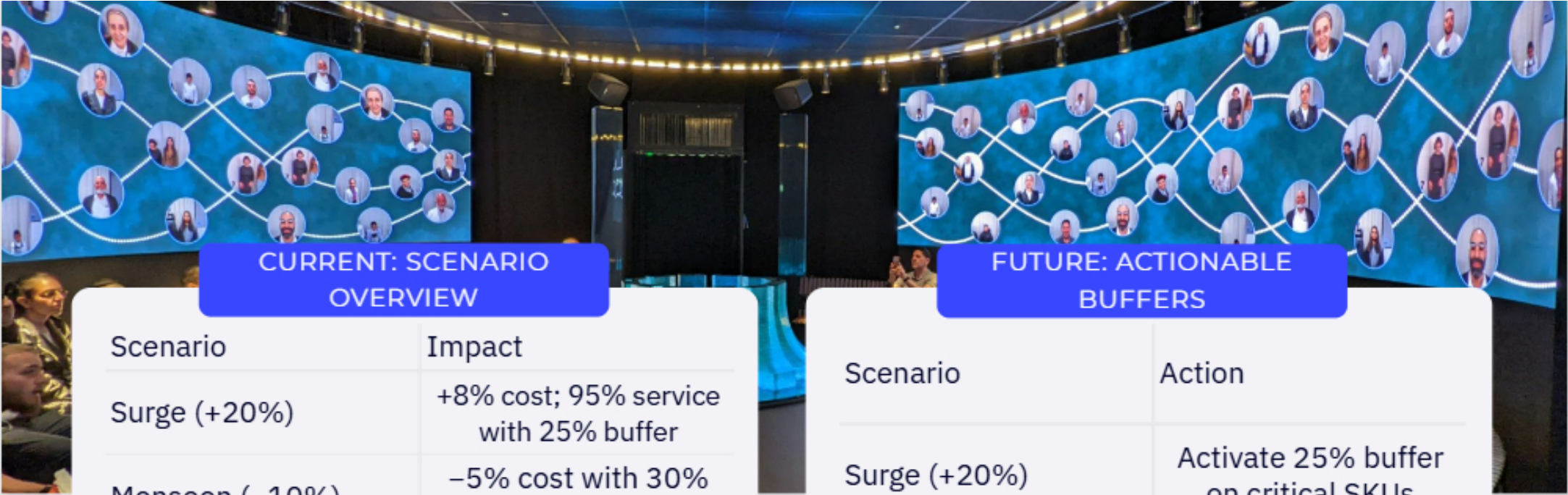
RESULTS — KPIS & SAVINGS

BEFORE

AFTER

METRICS	Before	After
Forecast Error (MAPE)	12%	7%
Service Level	90%	95%





### CURRENT: SCENARIO OVERVIEW

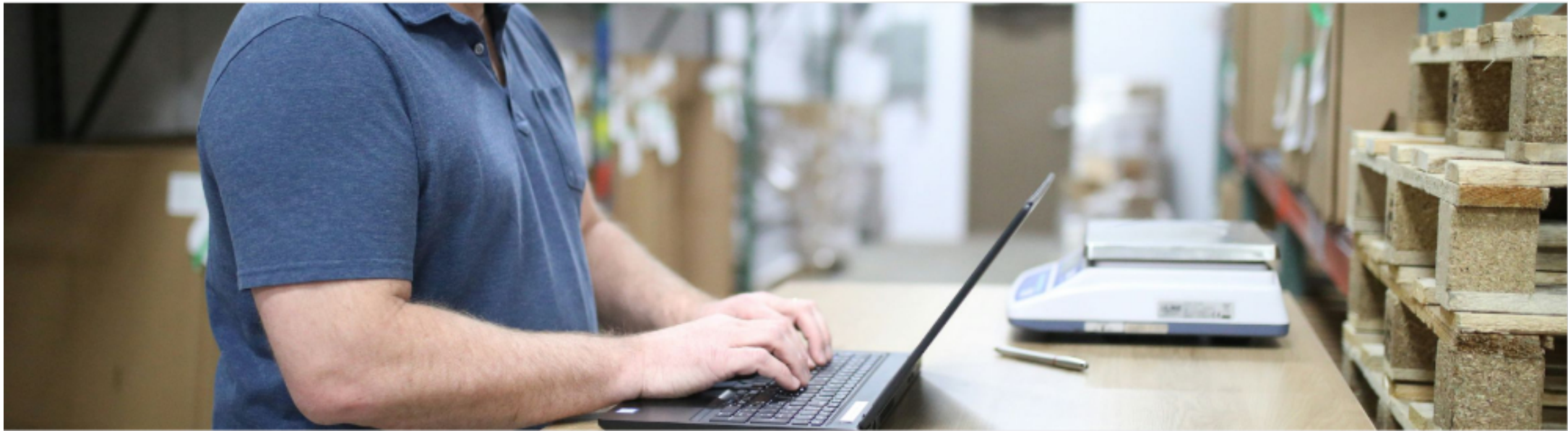
Scenario	Impact
Surge (+20%)	+8% cost; 95% service with 25% buffer
Monsoon (−10%)	−5% cost with 30% buffer
Inflation (+10%)	+10% cost mitigated via mix/route optimization
Note	Buffers applied by SKU criticality

### FUTURE: ACTIONABLE BUFFERS

Scenario	Action
Surge (+20%)	Activate 25% buffer on critical SKUs
Monsoon (−10%)	Shift inventory to inland hubs (30% buffer)
Inflation (+10%)	Optimize mix & routes to limit pass-through







## Recommendations — Inventory

- Deploy LSTM forecasting for the top 5 categories; ~20% fewer stockouts.
- Set EOQ with a 15% safety buffer (₹300 Cr scope).
- Pre-stock 25% in Q4 to cover festive demand surges.







## Recommendations — Routing



- Adopt multi-hub VRP to consolidate deliveries and reduce routing inefficiencies; target ~10% logistics savings (≈₹100 Cr).
- Launch a what-if planning dashboard for dispatch teams to simulate demand surges and re-route in real time.



- ESG: implement route optimization and load consolidation to achieve ~5% reduction in waste and emissions.



# Roadmap & Risks



- 0–3 months: Pilot LSTM + EOQ in two regions; establish baseline KPIs and data pipelines.



- 3–6 months: Deploy multi-hub VRP and interactive dashboard; deliver user training and change management.



- Risks & ROI: address data gaps and integration challenges; projected ROI < 6 months with ~₹10 Cr capex.

