

# Intelli-Cater

## The Algorithmic Blueprint for Zero-Waste Catering

Transforming event food production from intuitive chaos to Data-Driven Resource Orchestration.

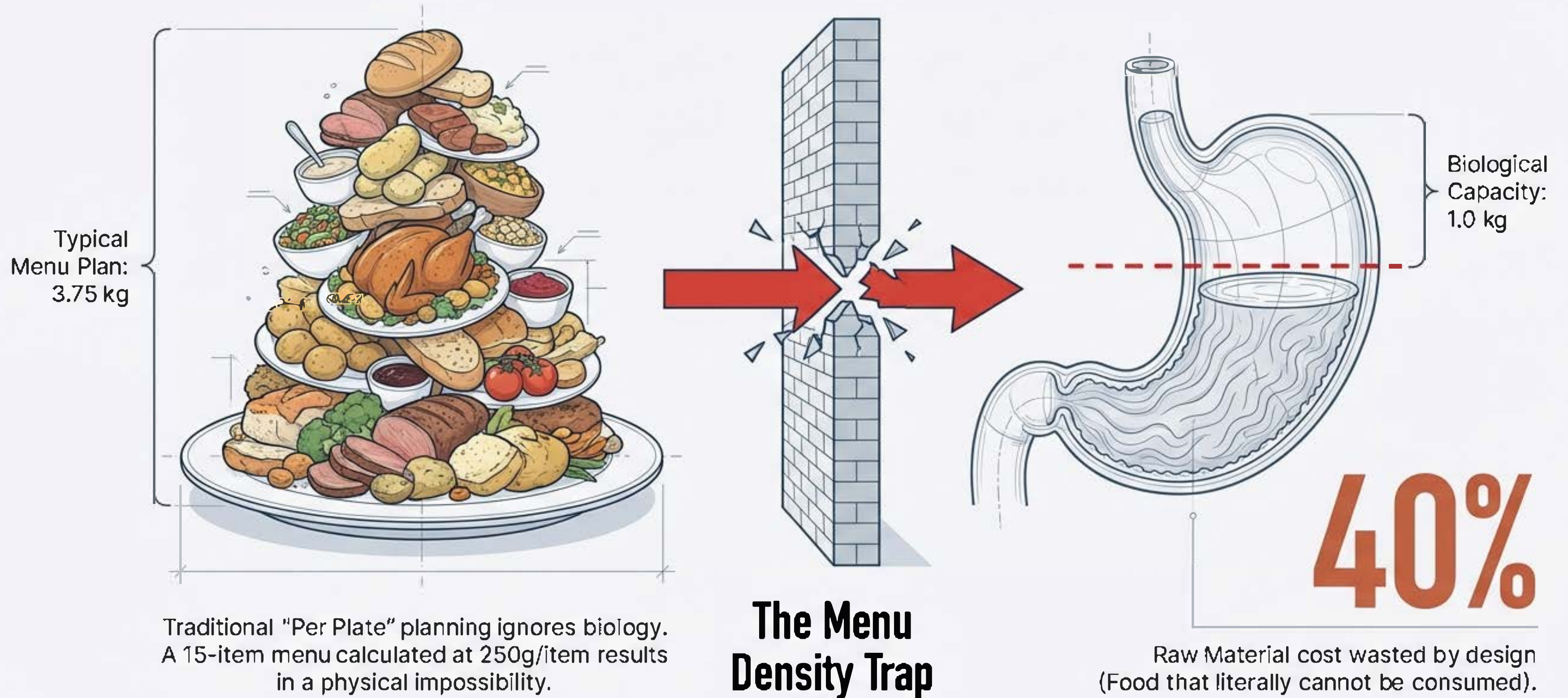
**Framework:** Custom - Standard MRP

**Presenter:** Venkat Rao Yenikapati

**Status:** Technical Blueprint

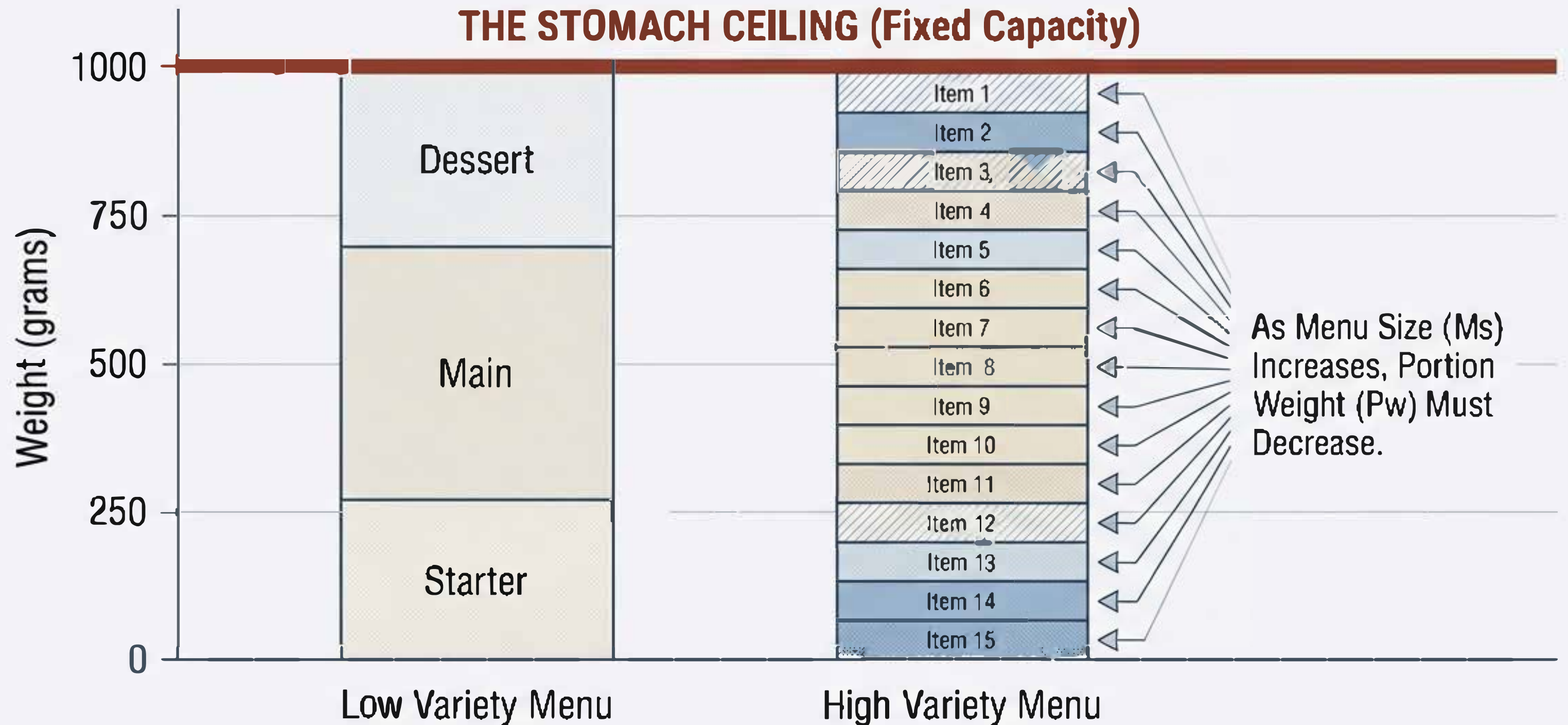


# The Business Deficit: The “Menu Density” Trap



# The Axiom: The 'Stomach Ceiling' Constraint in DIN Pro


The sum of all Bill of Materials (BOM) items must be  $\leq$  Patron Capacity.





# Logic Engine I: Demographic Profiling (Dm) in DIN Pro

Refining Headcount into Metabolic Capacity.

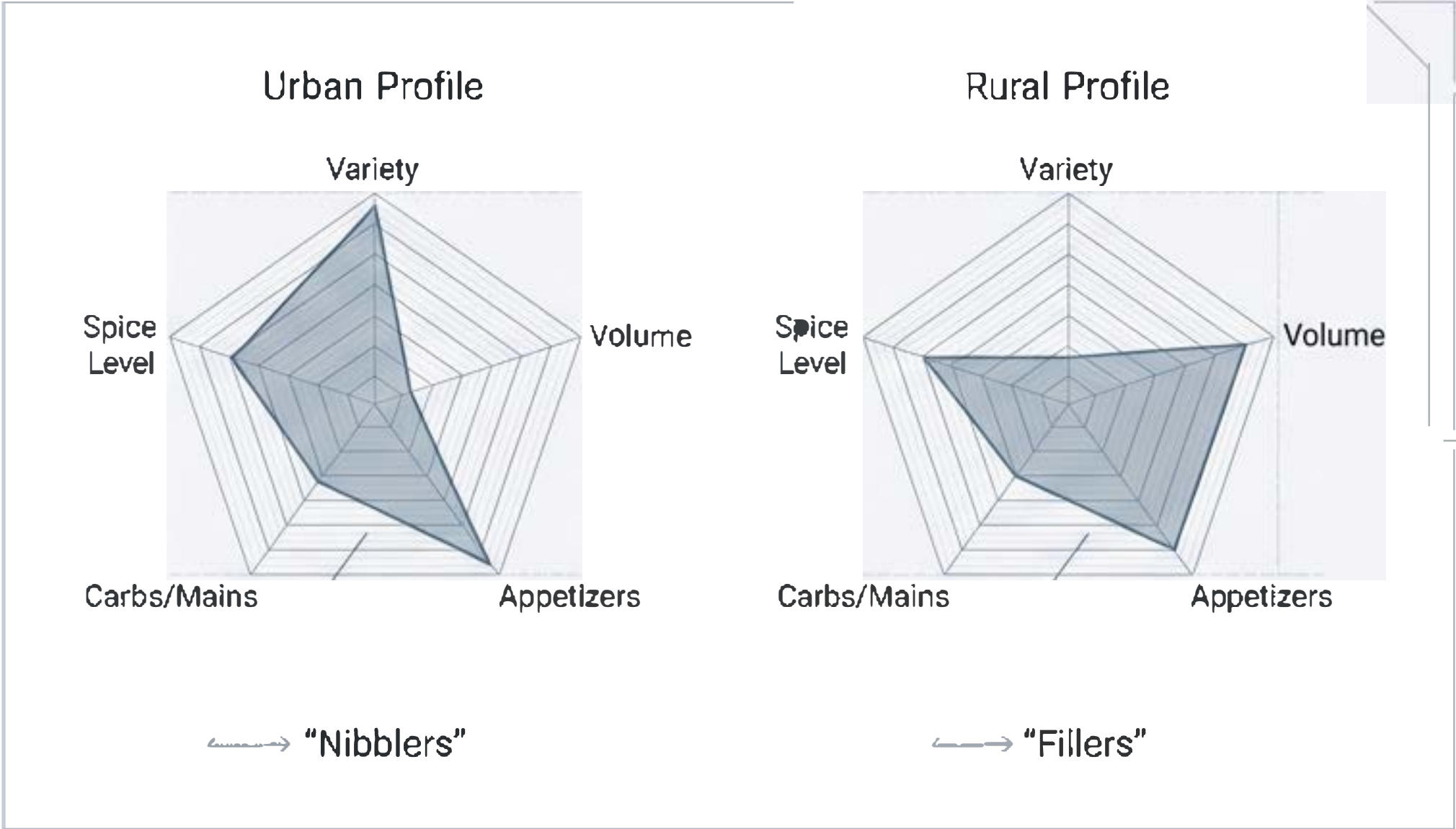
	Adult Male	High Consumption Coefficient. Dm = 1.0
	Adult Female	Medium Consumption Coefficient. Dm = 0.85
	Child (<12)	Low Consumption Coefficient. Dm = 0.5

Procurement is driven by the specific metabolic composition of the guest list, not just total ticket sales.

$$\text{Total Load} = \sum (\text{Count\_Male} \times 1.0) + (\text{Count\_Female} \times 0.85) + (\text{Count\_Child} \times 0.5)$$

# Logic Engine II: Contextual Calibration

## Urban vs. Rural Tuning



## Regional Tuners (Hyderabad Factor)

☒ [ON] Spice Index:  
Increases Chili/Tamarind BOM for Telangana profiles.

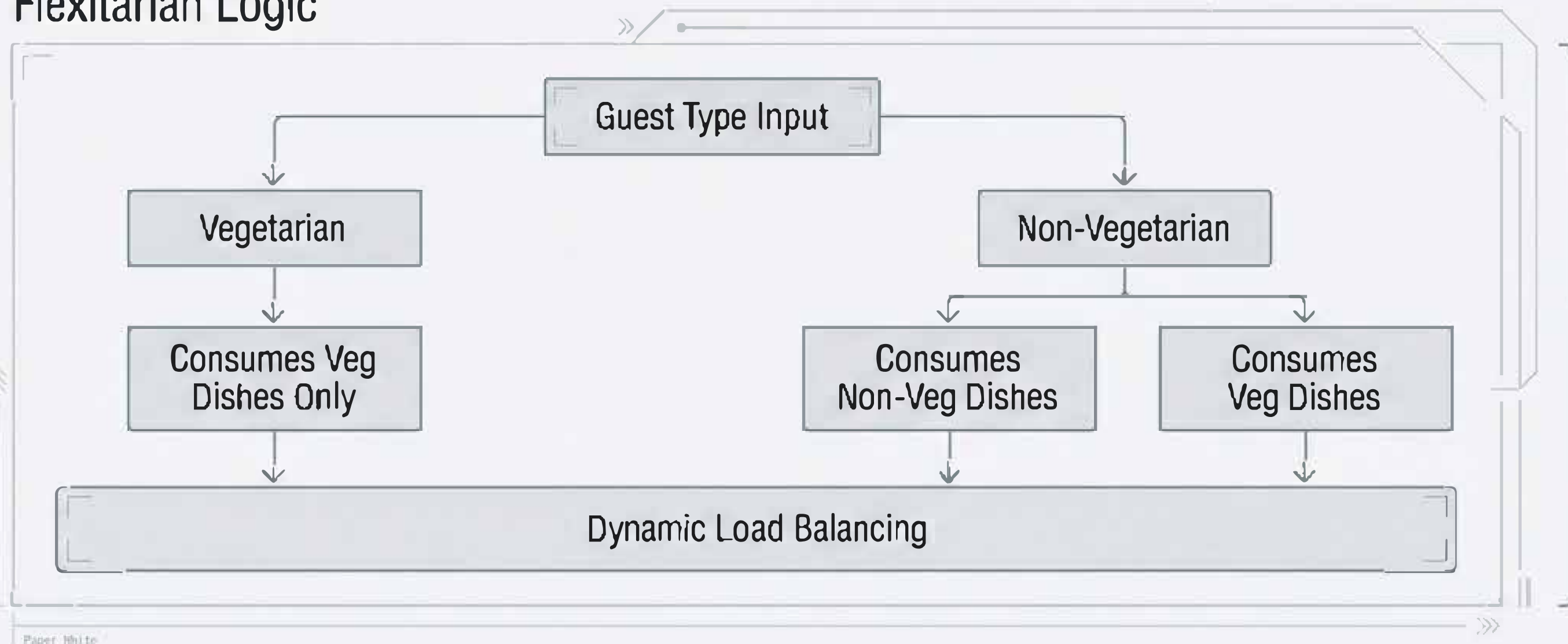
☒ [ON] Fat Index:  
+15% Ghee procurement for Dum Biryani requirements.

☒ [ON] Tier Ratio:  
Enforces fixed Meat-to-Rice ratio

# Logic Engine III: The Master Algorithm

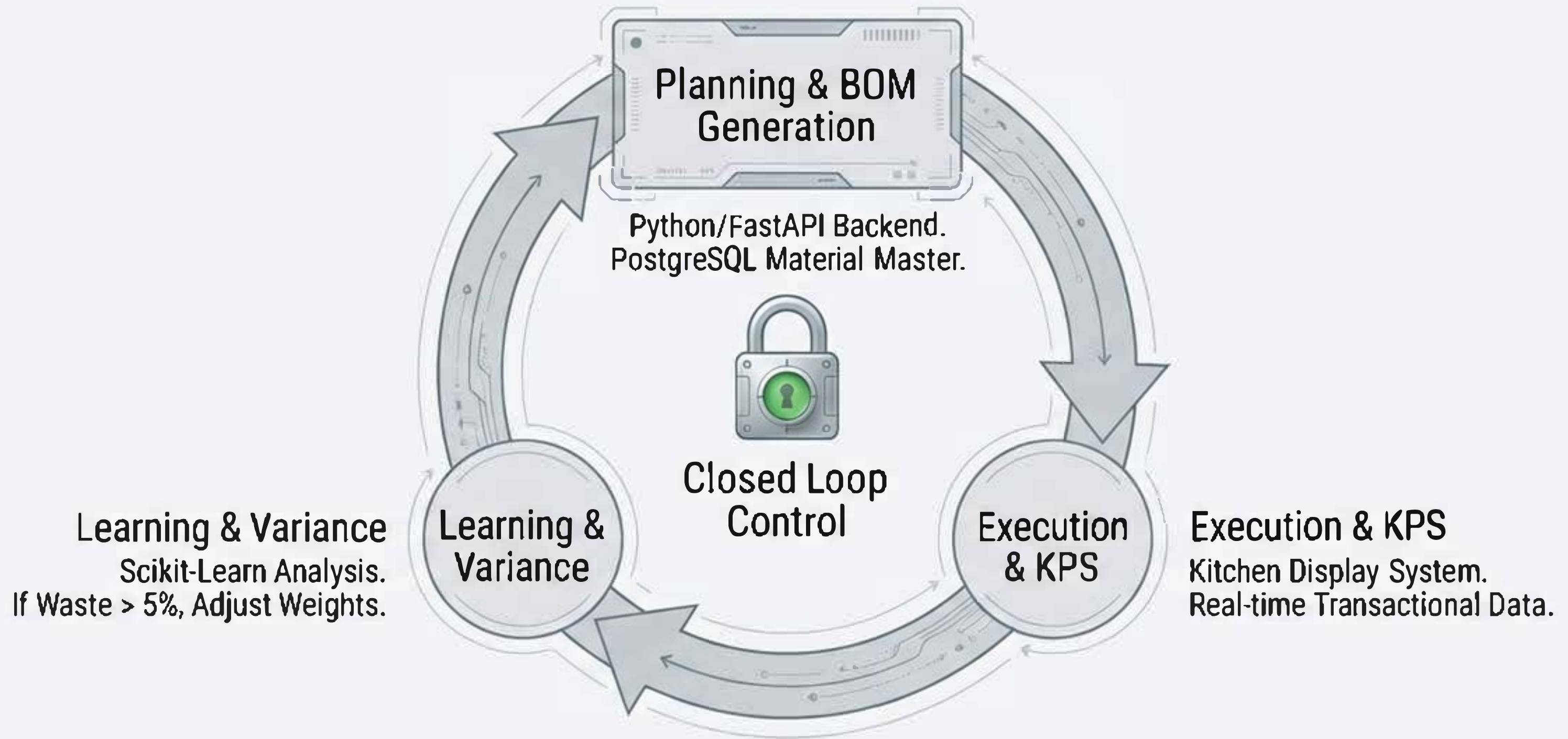
If Menu Size (Ms)  $\uparrow$  THEN Portion Weight (Pw)  $\downarrow$

## Flexitarian Logic



**Prevents Double-Provisioning:** The system recognizes meat-eaters will also consume vegetable sides, reducing the Veg-Only portion calculation to avoid over-ordering.

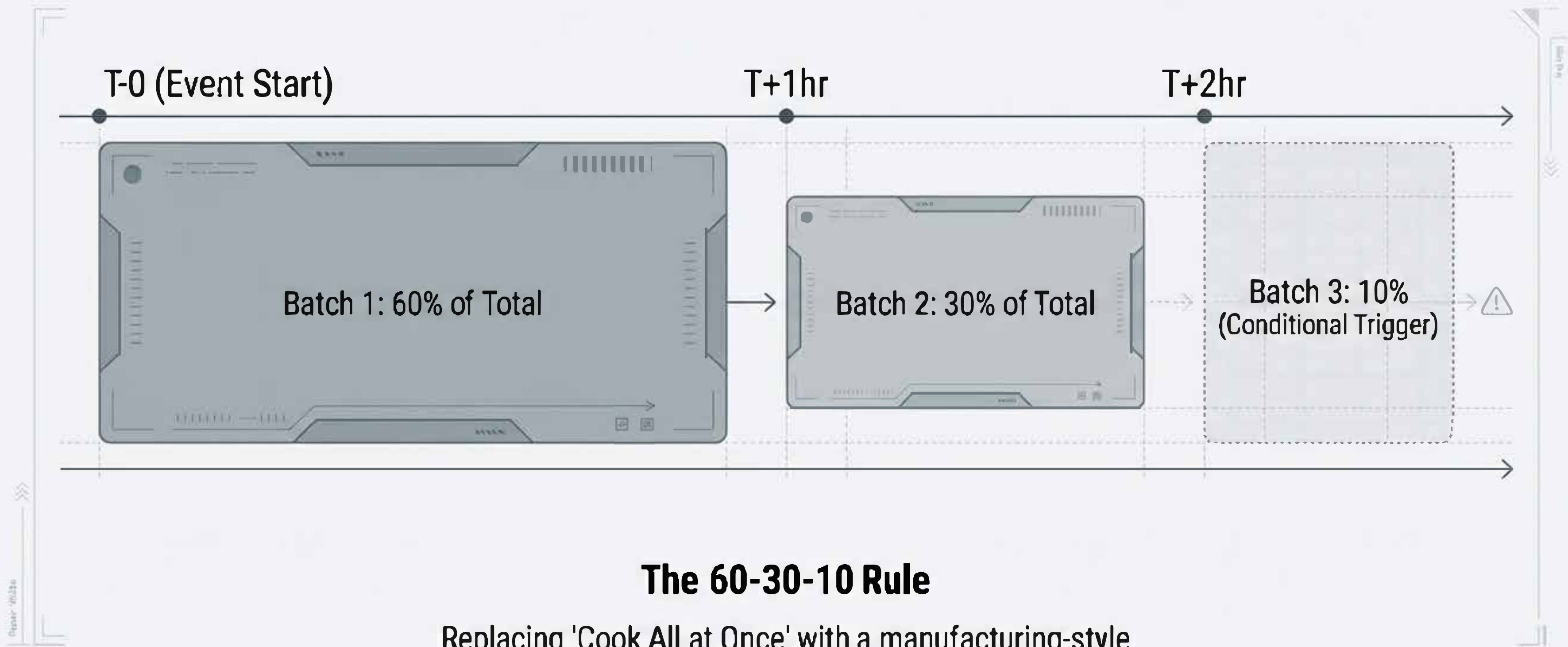
# System Architecture: The 'SAP-Lite' Core



A robust technical stack designed for rapid, iterative calculation and continuous feedback.



# Operational Strategy: JIT Production Batching



## The 60-30-10 Rule

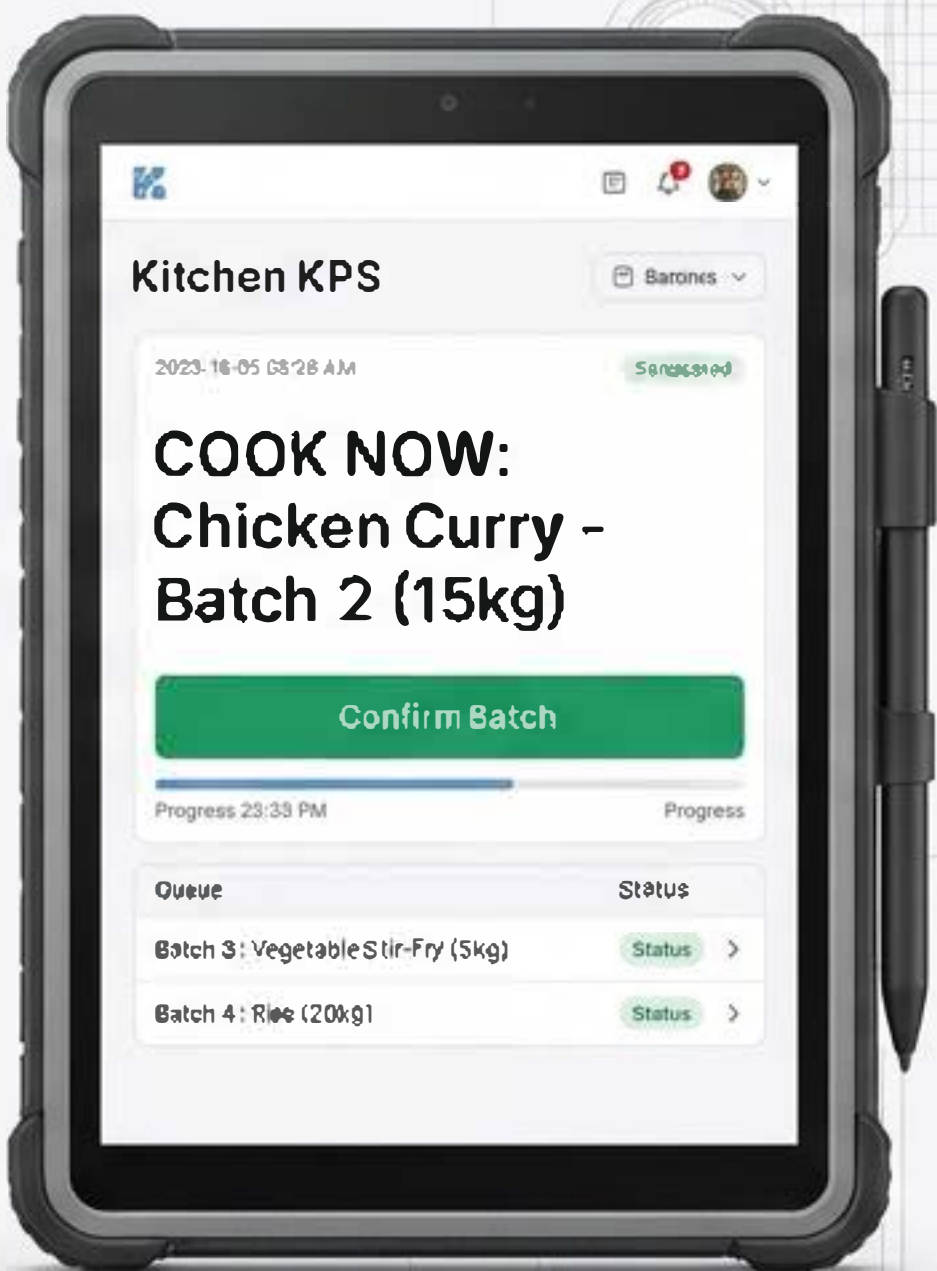
Replacing 'Cook All at Once' with a manufacturing-style production line eliminates terminal leftovers.



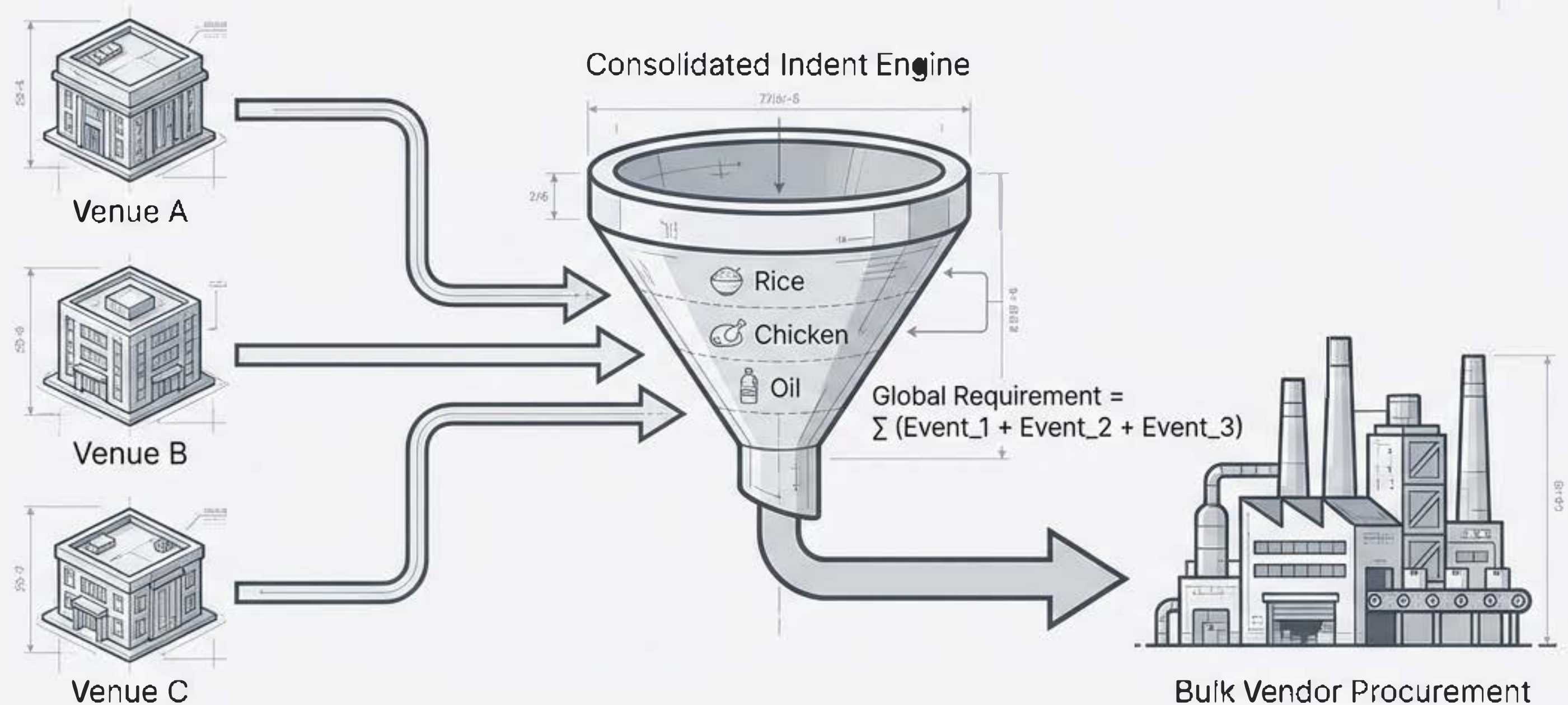
# User Experience: Planner & Kitchen Interfaces



Complex backend math  
hidden behind simple,  
role-specific interfaces.

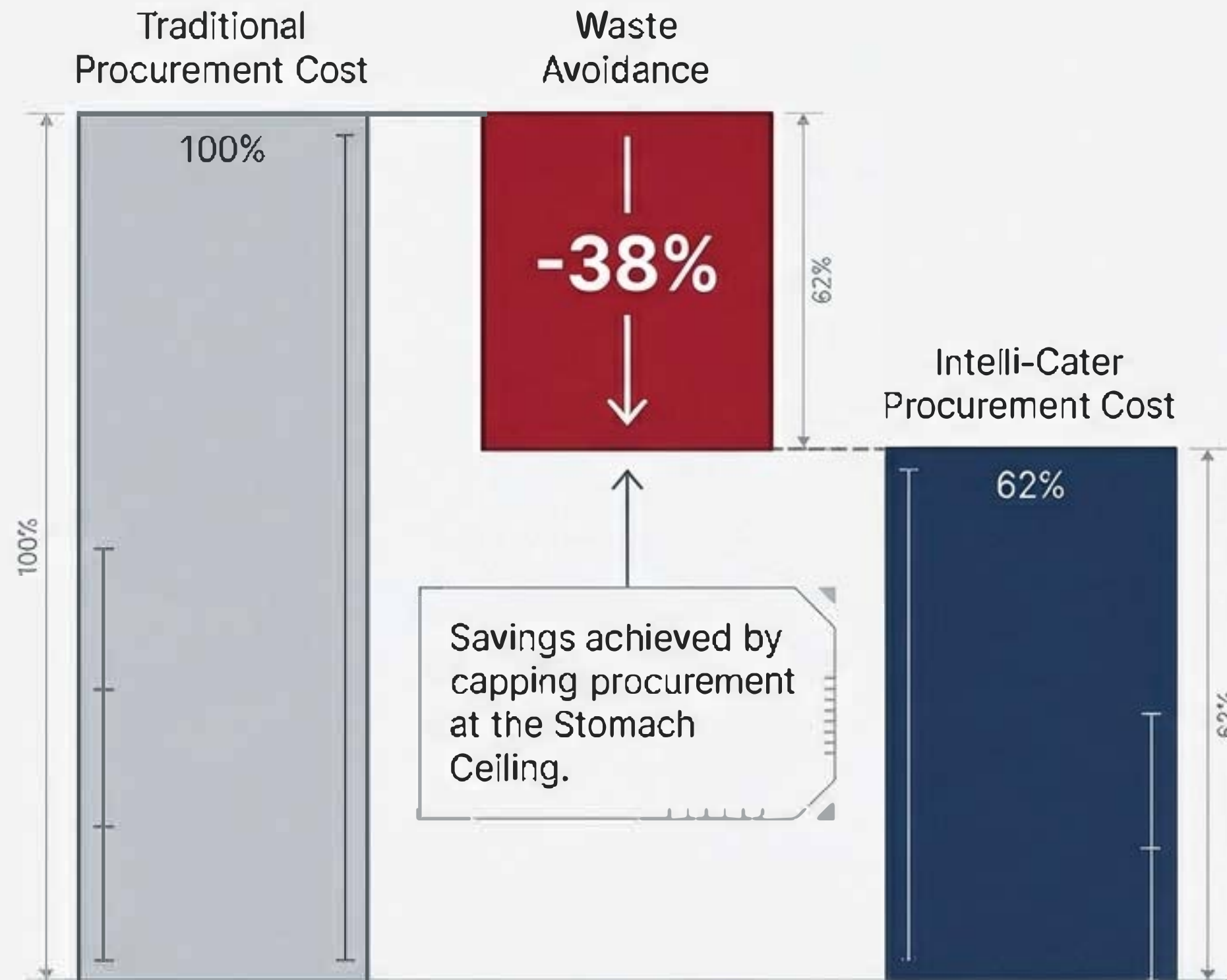


# Supply Chain: Multi-Event Aggregation



Aggregating Ingredient IDs across multiple venues creates bulk purchasing power for same-day delivery.

# Financial Impact: Raw Material Optimization



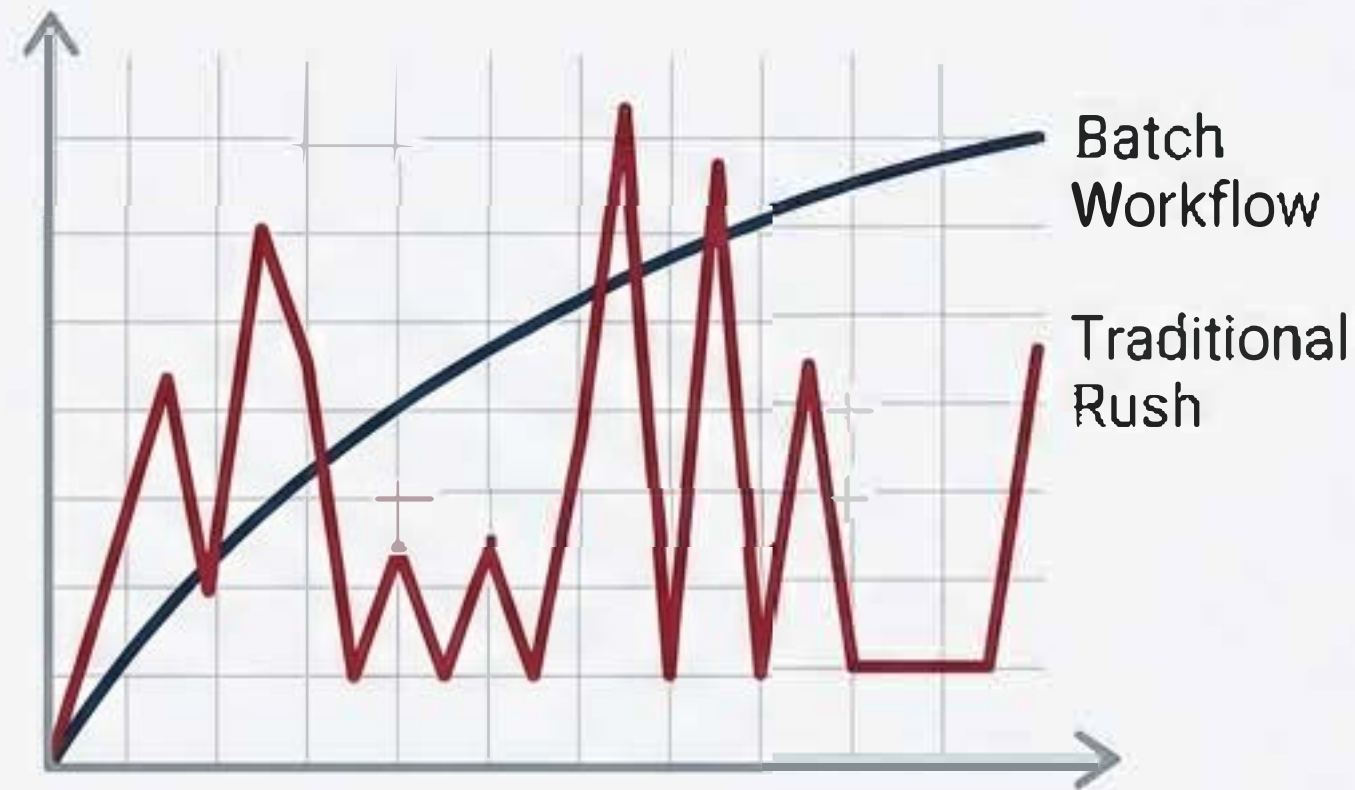
## 25% to 38%

Reduction in daily Raw Material (RM) procurement.



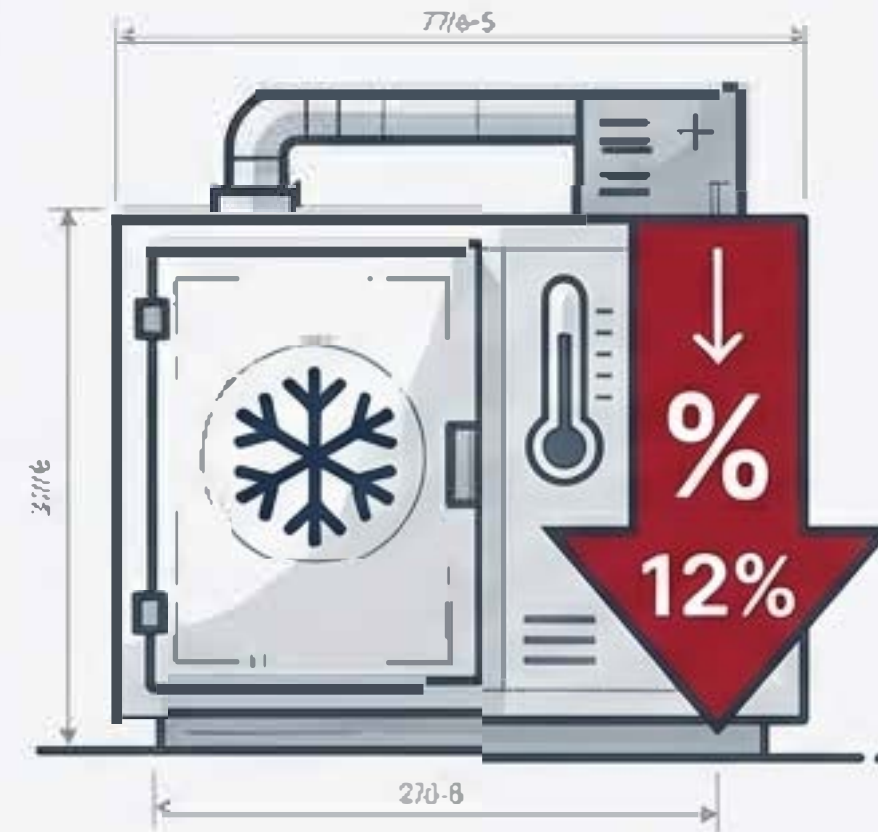
# Operational Efficiency: Labor & Energy

## Labor Optimization



Batch-cooking smooths workflow, preventing early-shift over-staffing and idle time.

## Energy Savings



12% reduction in cold storage costs due to JIT arrival of materials.

Net Profit Margin expansion of 5-8%.

# Case Study: The Hyderabad “Grand Wedding”

	Model	Food Prepared	Waste %
1	Traditional Prep Model	1200 kg Food Prepared	30% Waste ↓
2	Intelli-Cater Model	880 kg Food Prepared	5% Waste ↓

**Hard Cash Saved: ₹3.15 Lakhs**

Single event savings calculated at ₹250/kg avg cost.

# ESG & Sustainability: "Feeding People, Not Trash"



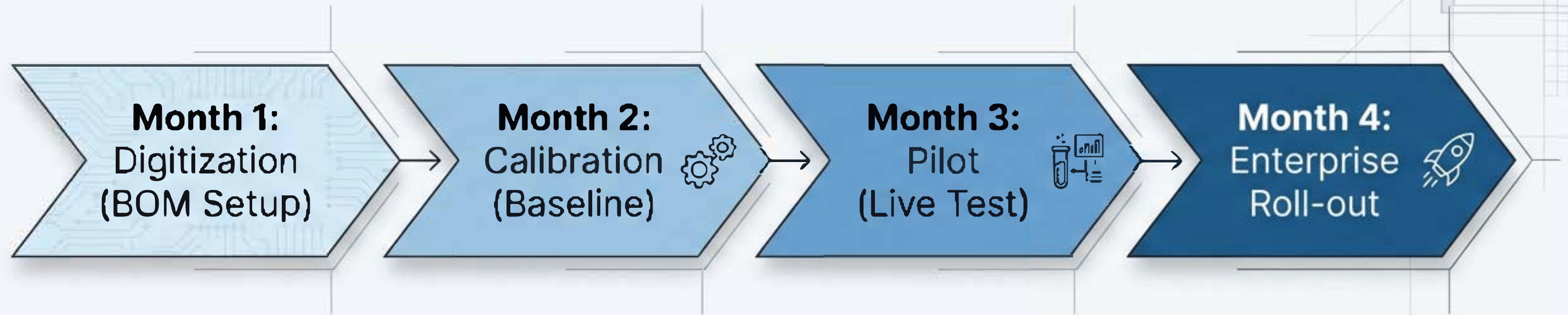
Reduction in carbon footprint from food waste decomposition.

- ✓ Modern Sustainability Standards.
- ✓ Eco-Conscious MNC Compliance.
- ✓ Responsible Consumption.

Shifting the industry metric from 'Abundance' to 'Responsibility'.



# Implementation Roadmap & ROI



## Payback Period: 6 to 8 Months

Based on Raw Material savings alone.

*The future of catering is not just tasty; it is intelligent.*