EXECUTIVE SUMMARY

Team Helios

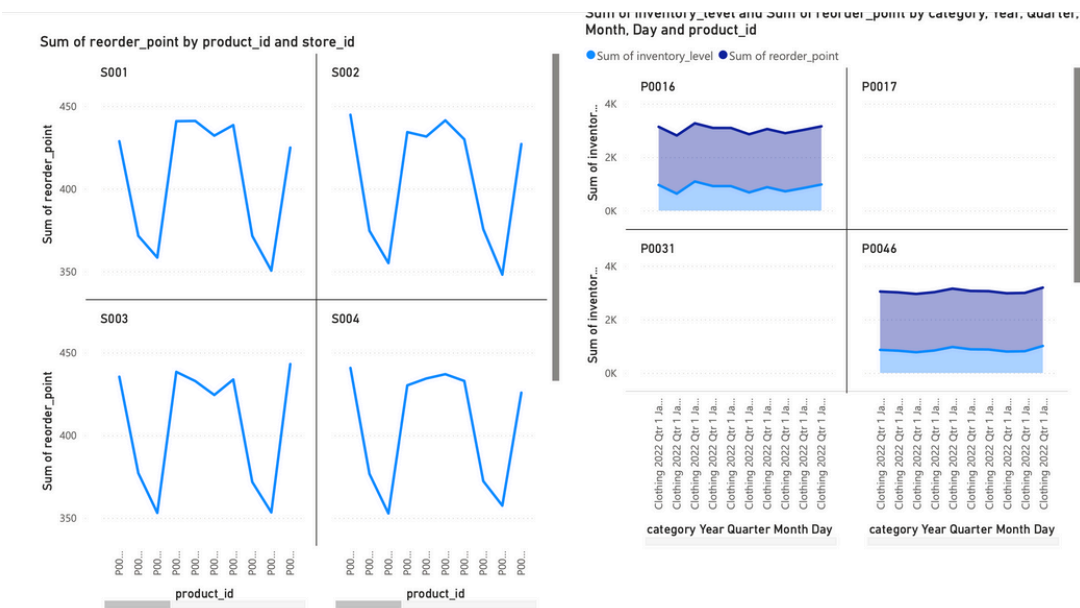## Reorder Points and Inventory Trends Across Stores and Time

- Reorder points are visualized per product_id across stores S001 to S004, revealing disparities in how each store handles replenishment thresholds.
- Variations in reorder levels for the same product across different locations suggest inconsistency in restocking logic and strategy.
- High reorder points across stores point to fast-moving or essential SKUs that require frequent replenishment to avoid stockouts.
- Low or inconsistent reorder thresholds may indicate slow-moving items, planning oversights, or manual errors in threshold configuration.
- Temporal analysis of inventory vs. reorder points (by category, quarter, month, and day) reveals overstock risks when actual stock far exceeds reorder levels.
- Stockout risks and seasonality are exposed when inventory dips below reorder points, emphasizing the need for dynamic thresholding and lifecycle-aware inventory policies.
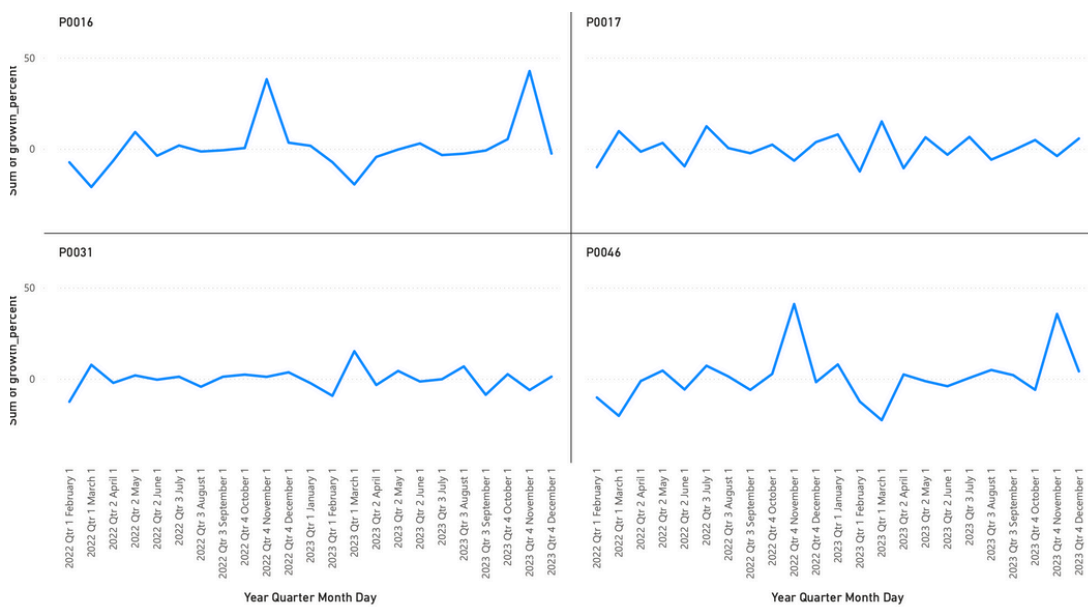
## Growth Percent Over Time by Product

- Shows growth trends for products from Jan 2022 to Dec 2023.
- Identifies top-performing SKUs with consistent positive growth (e.g., P0016, P0046).
- Spotlights seasonal or event-driven spikes in sales.
- Dips in growth may indicate product saturation or declining demand.
- Enables forecast refinement and strategic SKU prioritization.
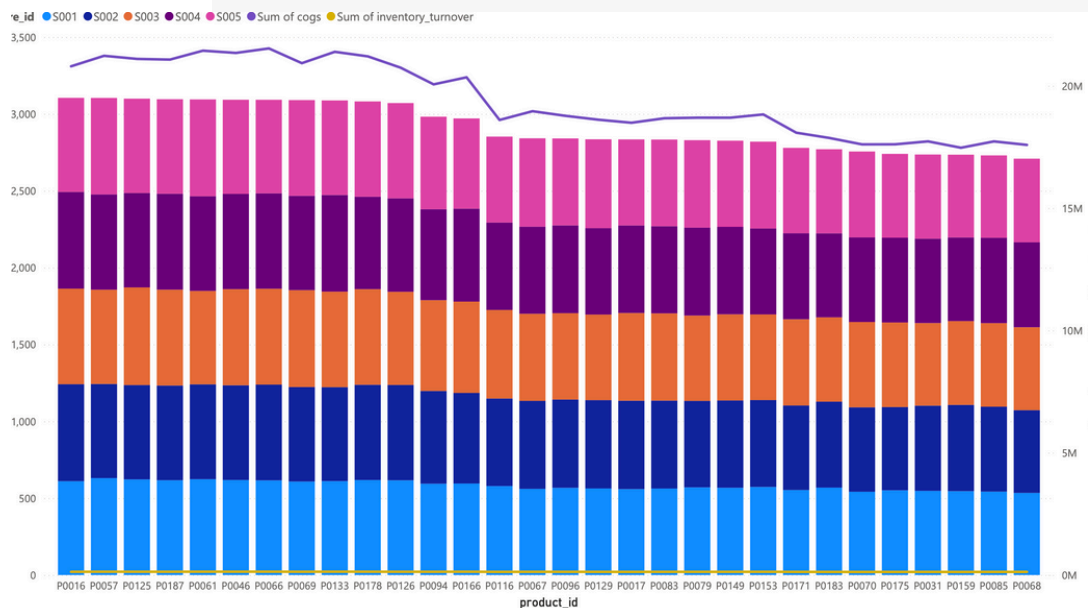
## COGS, Inventory Turnover, and Avg Inventory by Product and Store

- Displays Cost of Goods Sold (COGS), inventory turnover, and average inventory per product and store.
- High turnover + high COGS = top sellers with strong demand.
- High inventory + low turnover = inefficient stockholding, possible deadstock.
- Helps identify products that need promotion or liquidation.
- Assists in optimizing cash flow and warehouse efficiency.

EXECUTIVE SUMMARY
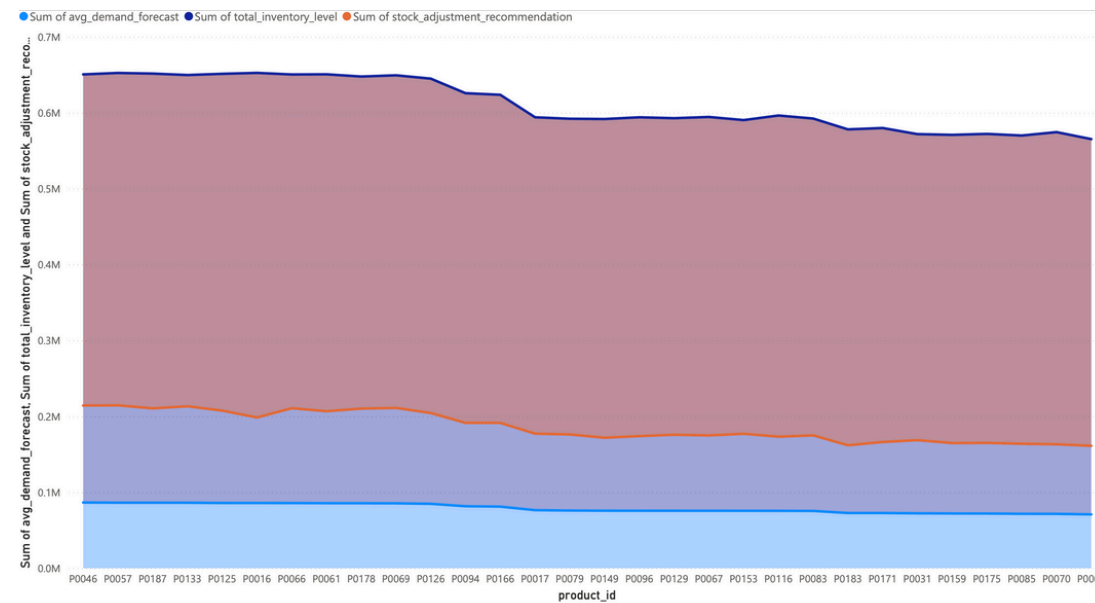
Demand Forecast vs. Inventory Levels vs. Stock Adjustment Recommendations

- Compares forecasted demand, inventory on hand, and suggested stock adjustments.
- Products with high demand but low inventory are flagged for urgent restocking.
- Overstocked products with low demand get downward stock recommendations.
- Supports data-backed inventory rebalancing.
- Aids in reducing waste and holding costs.
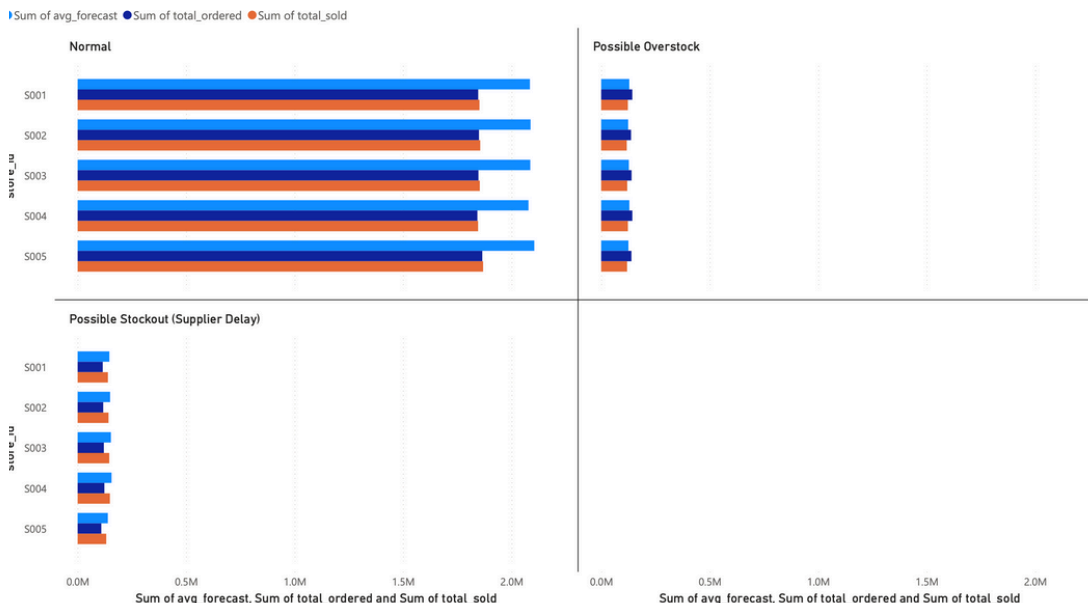
Forecast vs. Ordered vs. Sold: Supplier Performance Analysis

- Evaluates supplier impact using forecasted, ordered, and sold quantities.
- Flags issues like overstock or stockouts due to supplier delays.
- Stores with mismatches between forecast and actual sales/orders indicate forecast inaccuracy or supply chain flaws.
- Enables supplier performance benchmarking.
- Supports smarter procurement and vendor accountability.
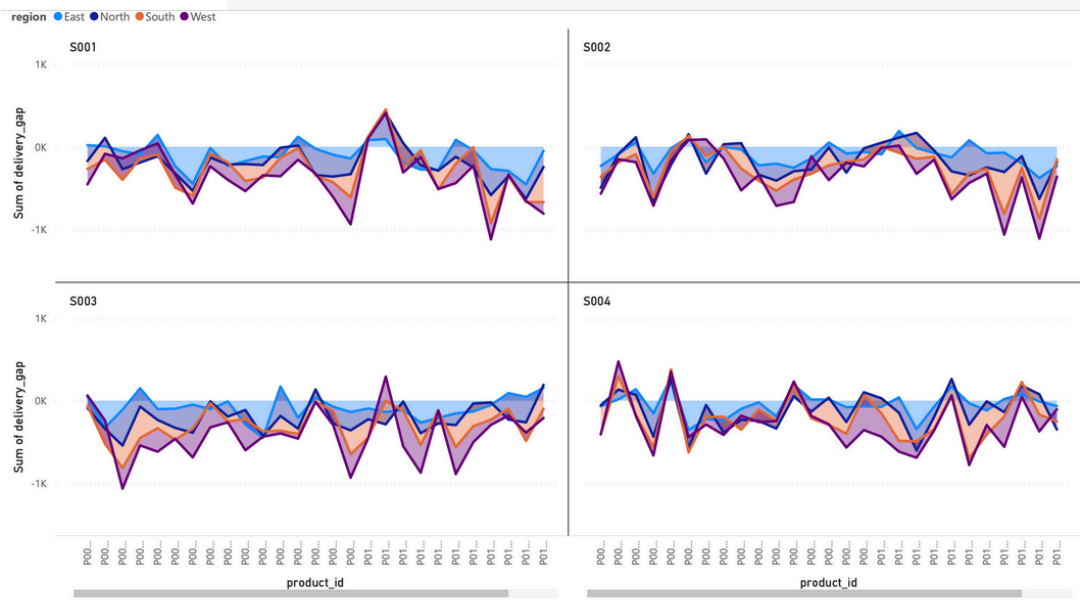
Delivery Gap by Product, Store, and Region

- Tracks delivery gaps across stores and regions (East, North, South, West).
- Negative values indicate under-delivery, a red flag for operational inefficiency.
- Persistent gaps in regions hint at logistical or supplier issues.
- Helps diagnose bottlenecks in fulfillment pipelines.
- Empowers teams to take corrective actions to ensure on-time stock availability.