Inventory Analytics Toolkit – README

Core Objectives of Inventory Optimization

Optimal Inventory Level

Maintaining the right amount of stock to meet demand efficiently.

Reduce Stockouts

Minimizing instances of running out of stock to avoid lost sales.

Analyze Turnover

Evaluating how quickly inventory is sold and replaced.

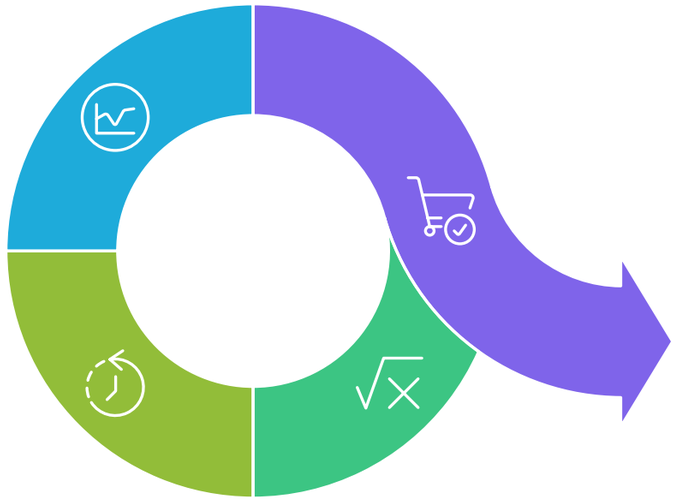
Streamline Procurement

Improving the efficiency of acquiring and producing inventory.

Sustainable Strategy

Developing long-term inventory practices that are environmentally friendly.

Inventory Management Cycle



1

Calculate EOQ

Determine optimal order quantity using formula

2

Set Reorder Point

Establish when to reorder based on demand and lead time

3

Forecast Demand

Predict future demand using historical data

4

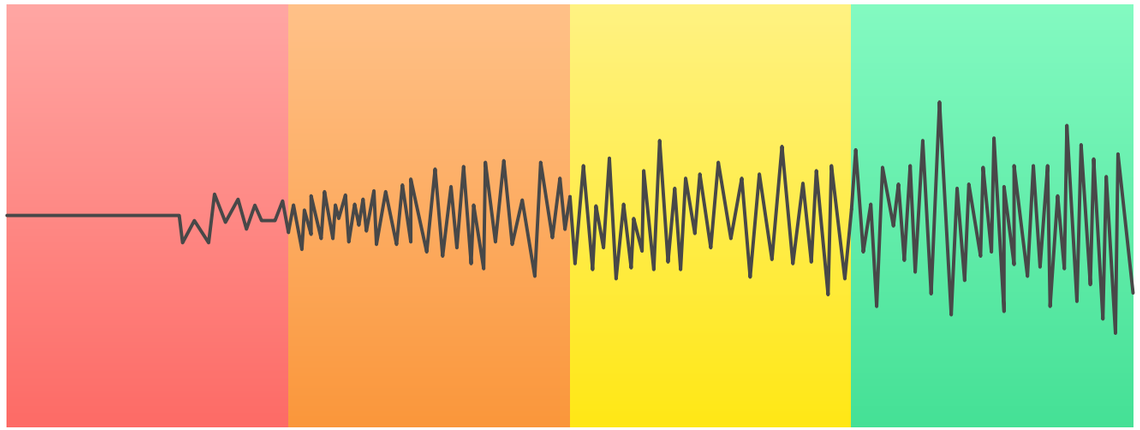
Make Procurement Decisions

Decide on procurement actions based on forecasts

Inventory management ranges from reactive to proactive strategies.

Reactive

Proactive



Inventory Health Flags

Reacts to low stock levels

ABC Classification

Prioritizes high-value items

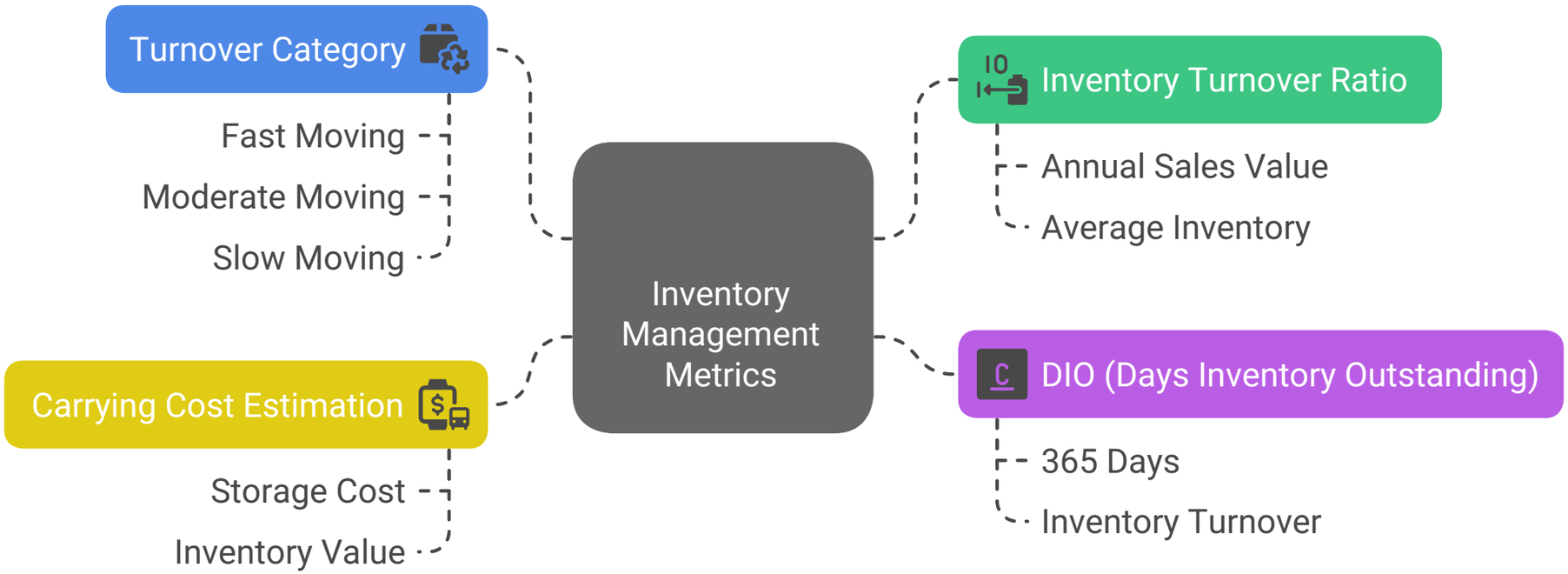
Inventory Health Flags

Reacts to high stock levels

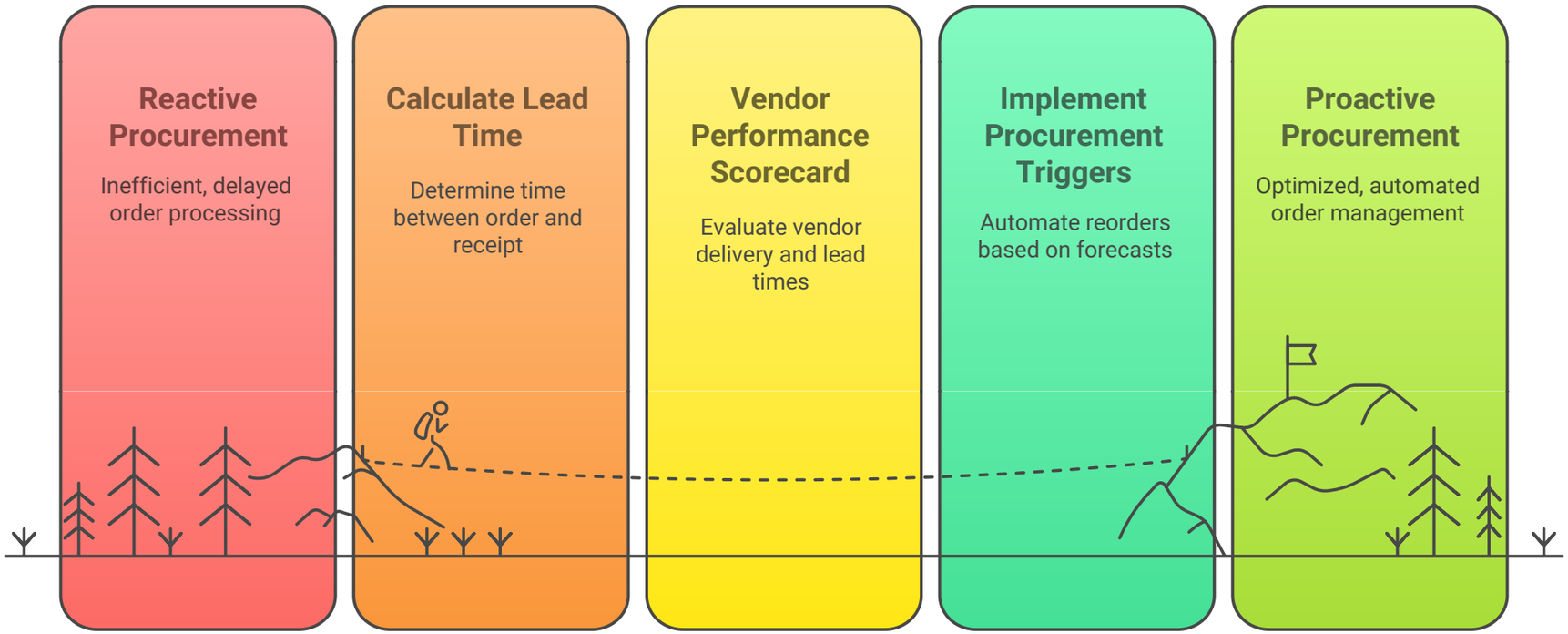
Forecast-Aware Procurement

Predicts demand for adjustments

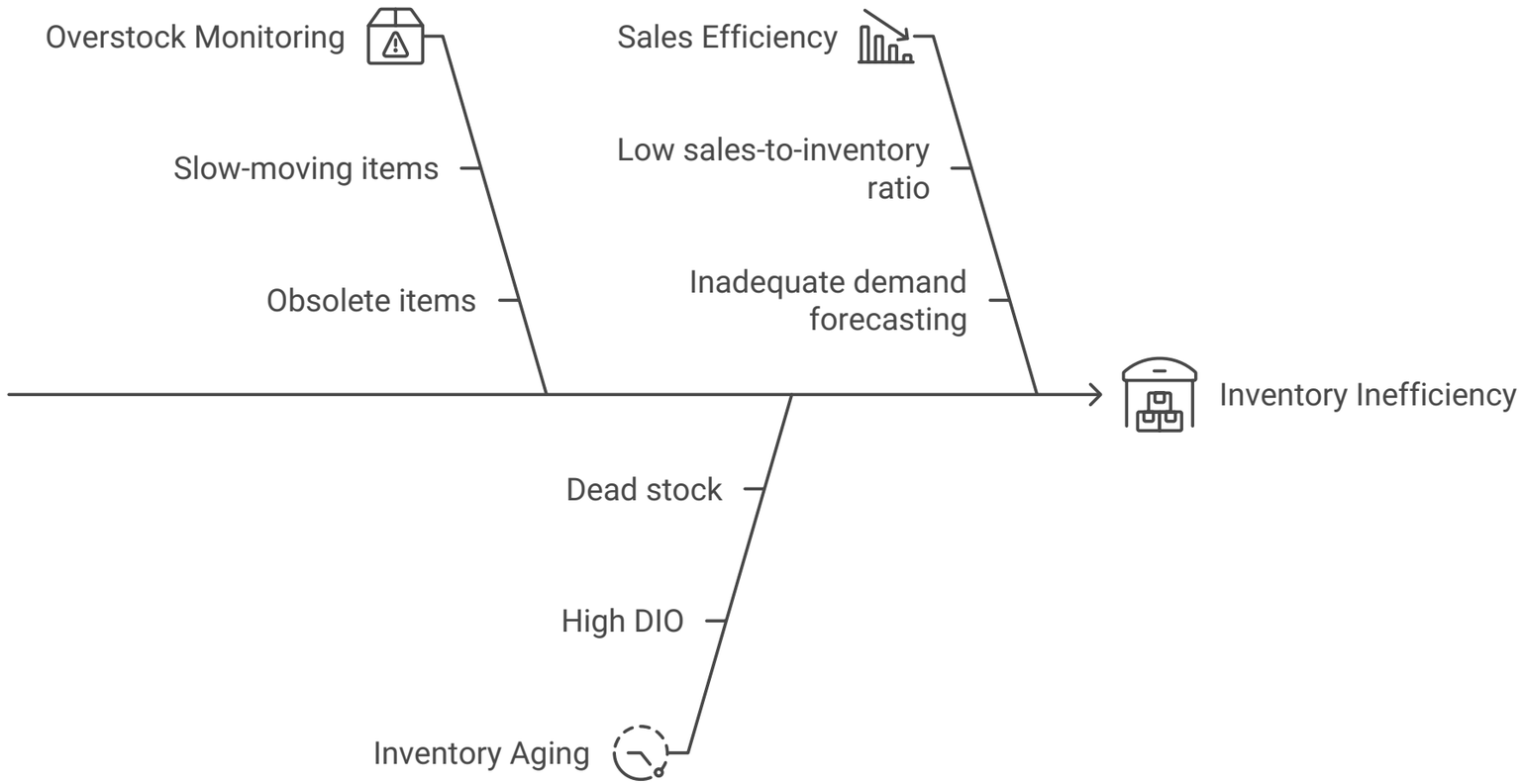
Inventory Management Metrics and Analysis



Streamlined Procurement Process



Analyzing Inventory Inefficiency



Comparison of different tools

Category	Tool
ETL & Processing	Pandas, NumPy
Forecasting	Prophet
Visualization	Seaborn, Matplotlib, Plotly

Achieving Inventory Optimization