



Supply Chain Inventory Manangment





What to Expect



To equip students with practical knowledge and modern tools to manage, analyze, and optimize inventory in dynamic supply chains, enabling them to adapt to current challenges and future trends



We will Cover the following Topics



Inventory

Management Vs Control

Classification

Based on Value /
Movement / Risk /
Criticality



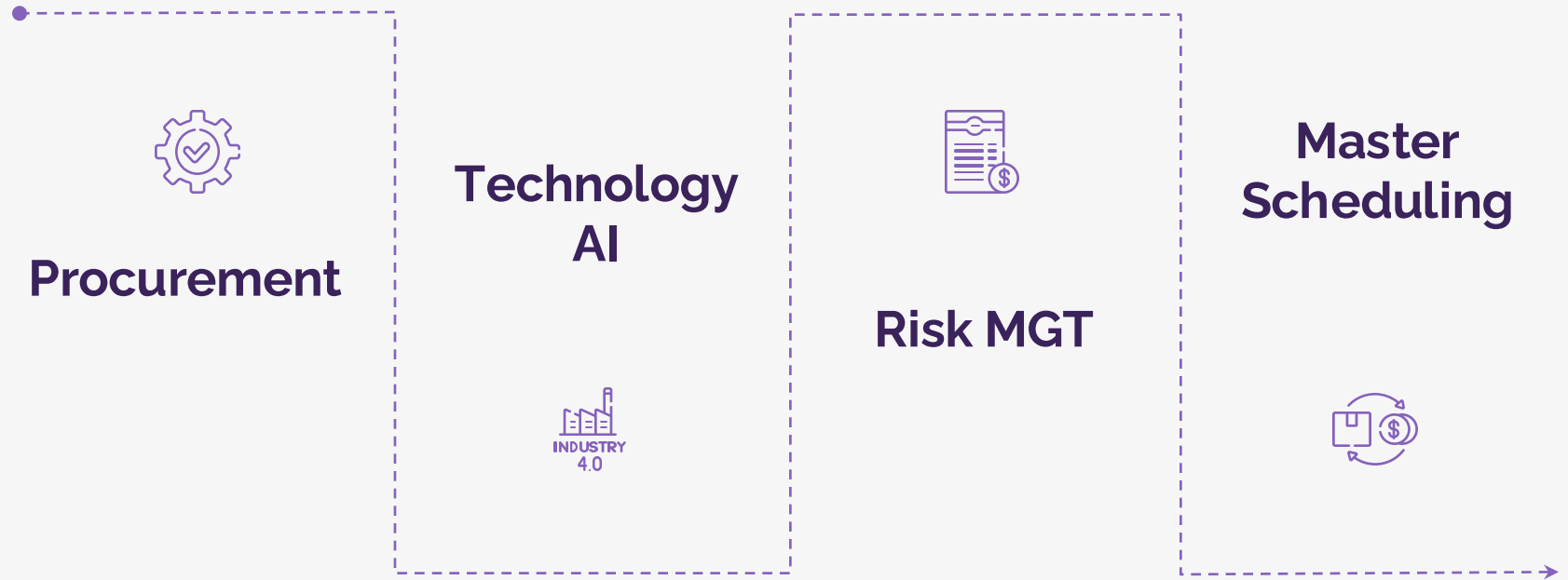
Demand / Forecasting

MRP

System / Roles



We will Cover the following Topics





Building a Unique Regional Logistics Hub Initiative





- In 2011, Toyota faced supply chain disruptions due to the Japan earthquake/tsunami.
- With **lean inventory (Just-in-Time)**, Toyota had almost no buffer stock — (resulting in **over \$1 billion in lost output** within weeks).
- A strong reminder: lean inventory saves costs, but can be risky if supply shocks hit.





- Amazon holds one of the largest inventories in the world, worth \$46 billion in 2023.
- Yet, its advanced algorithms predict what customers will buy so accurately that in some U.S. cities they start shipping items to local warehouses before you even order them (“anticipatory shipping”).
- **Accurate demand forecasting:** Predicting what products will be in demand and where, down to the zip code.
- **Robust warehouse and inventory management:** Ensuring products are pre-positioned in warehouses or distribution hubs for rapid fulfillment.
- **Route optimization:** Minimizing transit times by selecting the most efficient shipping routes.



- In 2001, Nike implemented a new inventory & demand planning system that went wrong.
- Result: **\$100 million in lost sales** due to too many unpopular shoes and shortages of hot-selling ones.

ZARA



- Zara is a Spanish fashion clothing manufacturer formed in the 1970's
- Takes only 2-Weeks to complete the development and shipment of a new product to its stores
- Stock displayed in limited QTY Vs Most Brands display only when full set of major sizes (Customer Satisfaction)
- Note : **two-week concept** is most effective in **European markets** where its production and distribution centers are located.
- Because Zara keeps most of its manufacturing and logistics close to Spain, stores in Europe often receive new designs within the two-week cycle.
- However, for stores farther away (such as in Asia, the Middle East, or the Americas), the lead time can be longer due to transportation and customs. Still, Zara maintains a fast global supply chain by shipping **small batches twice a week to all its stores worldwide**