A Robust
Warehouse
Management
Solution for a
Resilient
Supply Chain



As the world comes out of the global pandemic and demands pick up across industries, organizations are trying to scale up their supply chains to meet this fast-increasing and fluctuating demand. Operational efficiency and better capital management will be at the core while manufacturers try to operate frugally in order to lead in a market driven by cost and quality.

#### 5 Reasons to Modernize Your Warehouse

Supply chain managers across the globe have identified warehouse modernization as a key priority area for building resilient supply chains.



# Identifying bottlenecks and vulnerabilities in supply chain becomes a crucial first step towards transformation.

## 5 Major Challenges in Warehouse Management





**Incoming Goods Management:** From ensuring quality checks to sorting, slotting and labelling, warehouses often struggle with data management of received goods.



**Outbound Goods Management:** Delayed shipments, inaccurate deliveries and improper load balancing of resources are common problems faced by many warehouses leading to customer dissatisfaction.



**Inventory and Storage:** Inaccurate inventory data is the root cause of several supply chain issues and without an established workflow for stock traceability, businesses often incur unaccounted losses due to reasons like excess inventory holding and failure to implement expiry control.



**Operational Inefficiencies:** Lack of performance measurement and planning brings in inefficiencies in operations pushing up the resource requirement resulting in increased cost of operation.



**Data without Insights:** Warehouses generate huge volumes of data every day but many organizations fail to leverage this large data volume. Siloed data across functions, zero transparency and lack of analytical reporting lead to delayed decision making with no basis for innovation.

### **Bosch Warehouse Management Solutions**

We, at Bosch, bring the supply chain expertise gained from managing our own supply chain network covering more than 280 plants and 750 warehouses in more than 60 countries. The solutions have been tried and tested in our own plants which help us to bring the practitioner's viewpoint to our customers.

Bosch is a leader in the implementation of SAP EWM solution across the globe for large multinational customers. To extend the capabilities of the SAP EWM solution we bring in warehouse automation solutions which increases the efficiency and throughput of warehouses.

#### **How it Works?**



# Bosch brings a suite of solutions fueled by cloud, IoT and AI to change the face of warehouse management.

#### SAP Extended Warehouse Management (EWM)

Warehouse management solution is the backbone of any supply chain network. This solution allows large enterprises to manage high volume warehouse transactions. It enables customers to select from multiple deployment and hosting options supporting the warehousing requirements of a wide range of industries.



#### Streamlined Inbound Processes

- Goods Receipt Check
- Yard Management
- Quality management
- Sorting



#### Optimized Outbound Processes

- Tracked Packaging
- Demand wave management
- Cross docking
- Delivery monitor



#### Inventory and Storage Management

- Real-Time Visibility
- Resource management
- Material flow systems
- Task and alerts monitor

#### **SAP Yard Logistics**

SAP yard logistics provides the right solution for managing inventory for industries like automotive OEMs and dealers.

Bosch experience in implementing yard logistics along with integration of IOT devices for accurate tracking of assets will help business with complete control and accurate reporting



#### **Warehouse Digitization**

Warehouses are expected to be highly efficient and responsive while managing large number of SKUs. They also operate continuously under fluctuating demand conditions. Bosch solutions for warehouse digitization allows fast and accurate data capture while providing real time inventory status thus enabling a traditional warehouse to transform into modern warehouse.

#### Bosch WMLite - Digitized Inventory Management System

- Digitizing warehouse operations
- Automation of warehouse operations
- Traceability using unique Serial number/ Batch ID
- Real-time tracking of inventory using multiple technologies
- Increased accuracy due to digitized data acquisition



#### **Active Shuttle Management System**

Create transparent and efficient internal processes using ActiveShuttle. The ActiveShuttle Management System (AMS) enables highly flexible order management, in which orders can be entered manually or automatically fed via third systems.

Transport your dollies loaded with Small Load Carriers (SLC) in a highly flexible and secure manner. Leverage Bosch autonomous transport system ActiveShuttle to take your factory in to the future by automating and standardizing your internal flow of material and goods.

It can be quickly implemented, without adapting your existing factory infrastructure, intuitive to operate, completely connected and safe for people to use!

ActiveShuttle implements many transport concepts, from cyclical to consumption-based material supply systems. With automated loading and unloading, manual handling tasks are a thing of the past!



#### **Nexeed IAS**

The Nexeed Industrial Application System assists in digitalization of the entire value chain with the Bosch production system as its foundation. The solution combines lean management and IoT to enable each department to have the right information at the right time and in the right quality to perform better. Nexeed IAS digitalizes the entire value chain across product, quality control, machine and equipments, operating base and intralogistics using multiple modules for Intralogistics Transport Management, Stock Management (Shop Floor) and AGV Management.



## Intralogistics Transport Management



The Transport Management Application plans and optimizes the entire internal transport with milk runs and forklifts in real time. All vehicles are registered in the system including information about their loading capacities and scheduled routes. The optimal route for each milk run is calculated from live data such as current utilization, availability and position.

# Stock Management (Shop Floor)



The stock management application digitizes the internal material flow and thus facilitates logisticians' work. Thanks to the newly gained transparency, the position and quantity of production materials are known and can be called up any time.

#### **AGV Management**



One single controller for traffic management and steering of AGVs of multiple suppliers. The live view includes Manual Vehicles (milk run).

A modern warehouse system is the next obvious milestone for progressive businesses. The key goal is to streamline processes, transactions, storage and accounting. And the advantages are multifold with faster operations, accurate deliveries, enhanced customer and employee experience, and better decision-making.

Successful businesses around the world are adopting digital solutions at lightning pace. Our job as a technology partner is to support you in your endeavors.

