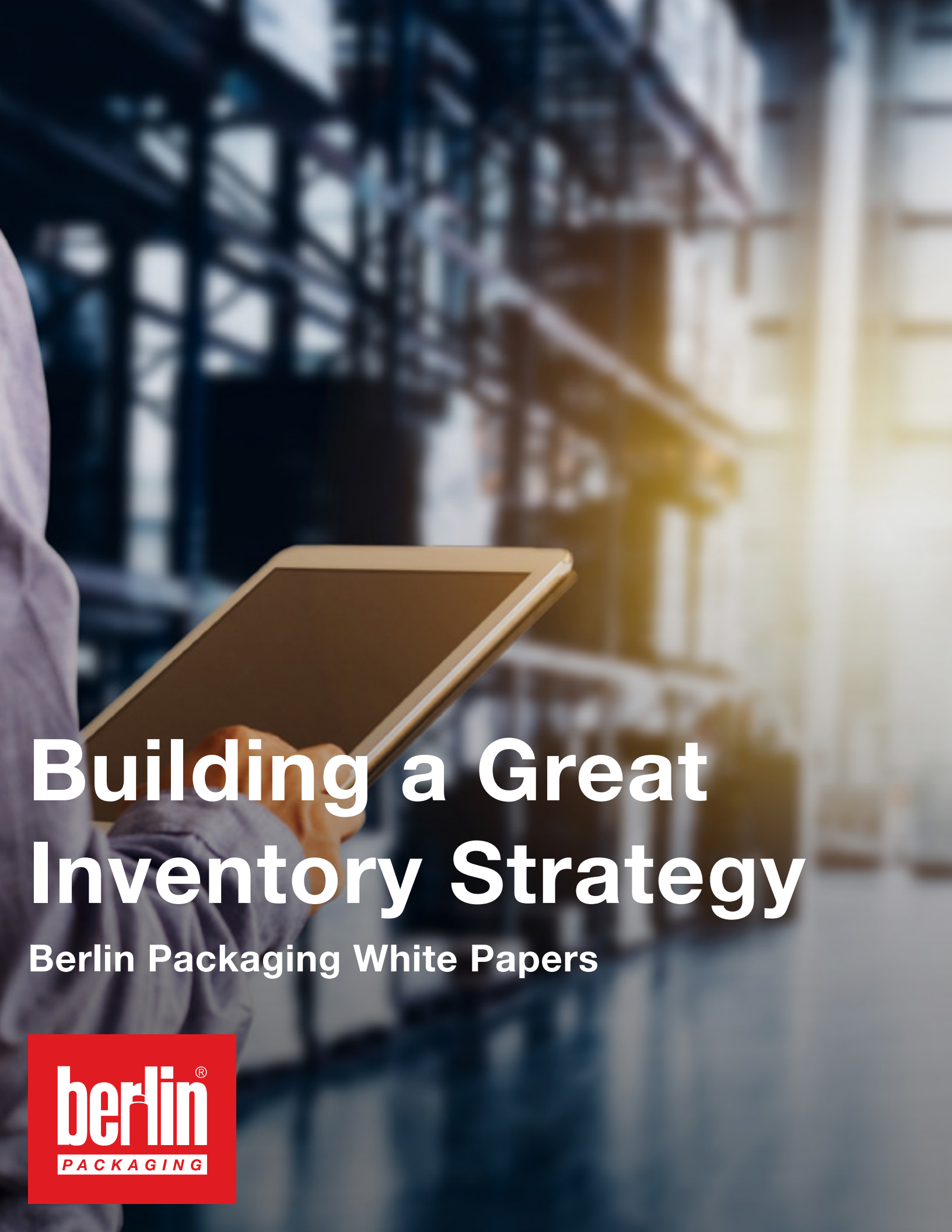
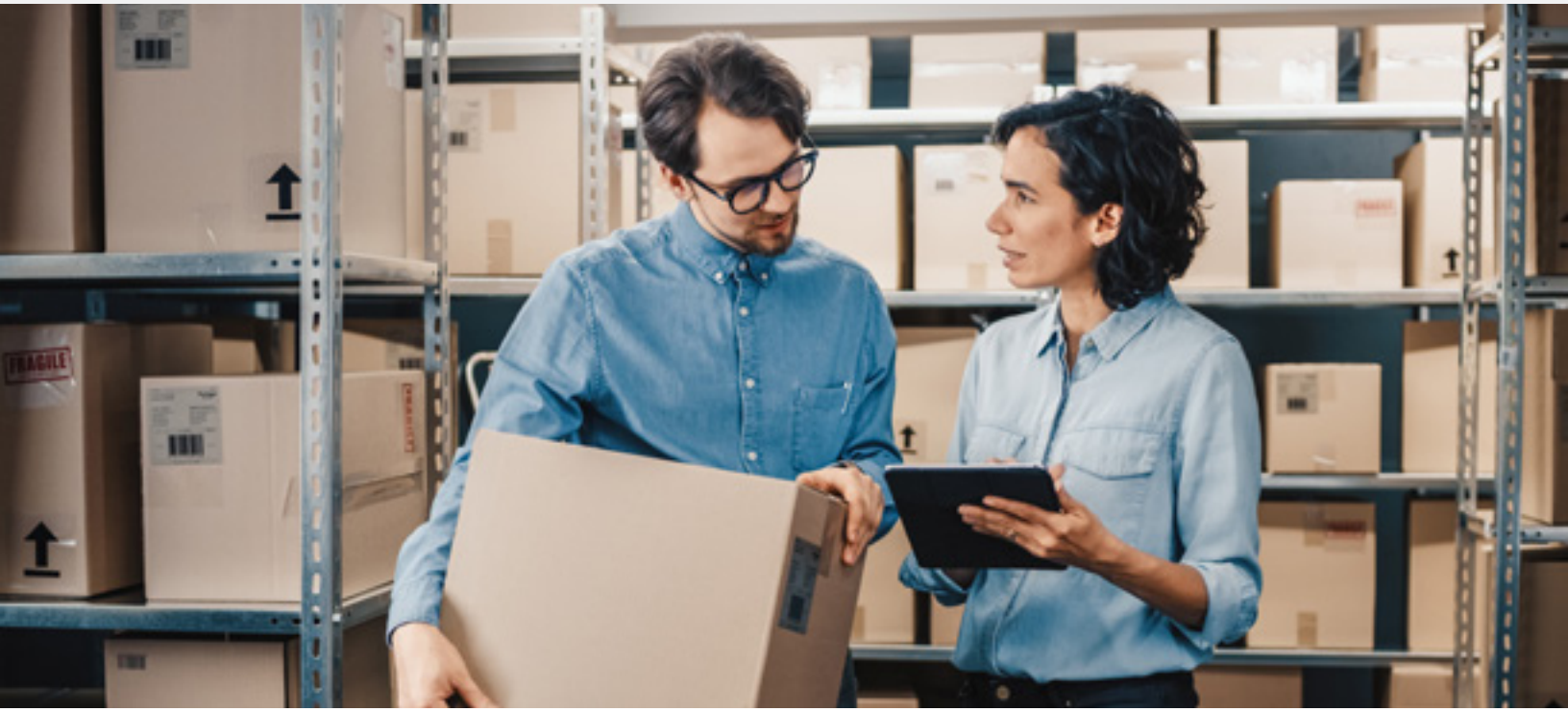


Building a Great Inventory Strategy

Berlin Packaging White Papers

berlin® PACKAGING

Introduction



We all know that businesses succeed by selling more products at better margins. The best companies achieve this by combining outstanding market and consumer insights with effective product development and robust supply chain and operations practices. What can often be overlooked is how important Inventory management is to successful operational practices.

Inventory is a significant asset on the balance sheet of manufacturing companies. Depending on the industry sector, it can represent up to 20% to 30% of total assets, and inventory of packaging supplies often representing a sizeable portion of that. How effectively a manufacturing company handles its inventory is closely tied to overall financial success. A 2009 study published in the International Journal of Operations & Production Management, for example, showed a significant positive correlation between financial performance and inventory performance.

Building a great inventory strategy is often complex, but answering three simple questions can help identify ways to reduce inventory investment without risking profit. Addressing these three questions – on inventories of raw materials, packaging, and finished goods – can result in improvements in inventory return-on-investment (ROI).

How Much Does Your Inventory Cost

Most of the time, the true costs of inventory are underestimated and incomplete. Many companies view the cost of inventory as the "cost of capital" of the inventory asset. So for example, a company with $15 million in average packaging inventory and an 8% cost to raise money sees a carrying cost of $1.2 million per year. But the actual cost is far greater than this when you take into consideration the costs associated with holding and handling this inventory:

Housing the Inventory

- Depreciation or rent on the building holding the inventory (or the portion of the building used for inventory)
- Heat and utilities on the building holding the inventory
- Janitorial, security, and routine maintenance on the building
- Taxes and insurance on the land and building

Handling of the Inventory

- Depreciation or rent of material-handling equipment (e.g., forklifts)
- Direct operating costs of material-handling equipment (e.g., propane tanks)
- Employee costs to receive, stack, and maintain materials
- Freight and transportation costs borne by the company

Direct Investment Expenses

- The cost of capital invested in the inventory (as discussed above)
- Insurance on the inventory
- Yearly loss from pilferage and shrinkage
- Yearly loss from obsolescence

Administration & Measurement Expenses

- Employee costs to account for and measure the inventory
- Top management time spent on solving inventory issues

Costs of System Failure

- Lost business and profits or impaired goodwill from improper management or late delivery of materials

That is a long list of additional costs. When they are all taken into account, the total cost of holding inventory is much higher than originally thought, representing up to 25-30% of the inventory's book value. For that same company with $15 million in packaging inventory, this translates into holding costs of $4.5 million per year – about 4 times higher than the cost-of-capital calculation. And the numbers can climb even higher with improper inventory management.

This is why getting an accurate measurement of what inventory truly costs is a smart first step in enhancing inventory ROI. Then attention can turn to defining the right amount of inventory to carry.

See On the Relationship between Inventory and Financial Performance in Manufacturing; you can locate this article at: www.emeraldinsight.com/journals.htm?articleid=1800686.

How to Right-Size Your Inventory?

Finding the right stocking levels can be a balancing act. Having too much inventory leads to unneeded costs, but having too little risks stock-outs and difficulty meeting customer demand.

There are four things to consider when calculating how much inventory to carry. The discussion below uses examples related to packaging inventory, but the same logic applies to raw materials and finished goods.

1 - Order Frequency

It may seem better to order more frequently, requiring you to carry less inventory. But more orders can often lead to higher piece-prices (as one large buy is broken up into many smaller buys) and more freight costs (as one truck-load receipt is turned into multiple LTL receipts). It may also violate vendor minimums. On the other hand, the less frequently you can order or replenish, the greater the inventory level required to meet a certain demand.

2 - Safety Stock

No business wants to find itself out of stock. Those three dreaded words lead to a cost of failure that includes customer/retailer dissatisfaction, consumer loss of loyalty, and overall brand impairment. The more uncertainty there is in the supply chain, the more likely a company needs to carry additional inventory or safety stock. This serves as an insurance policy against risks in the supply chain or miscalculations in inventory planning.

3 - Lead Times

If you can order a package on Tuesday and receive as much as you need on Wednesday, then you are lucky that lead times are simple and not a factor. But often lead times can be long and variable. Lead times may vary for many reasons: type of product (commodity vs. unique part), number of potential suppliers (few vs. many), locations of the suppliers (e.g., domestic vs. international), and buying power of the purchasing company (market mover vs. tiny player). Longer lead times require more precise planning, causing many companies to opt for higher inventory levels.

4 - Expect Demand

One of the obvious factors is how much of a package is needed in a year, but this isn't always easy to calculate. Past history can be a guide, but to get a more accurate estimate requires a thoughtful forecast that takes into account planned marketing or sales initiatives as well as a look at the latest demand indicators. This process can be tricky because it should be done at the product-line or SKU level, but it is important to do it correctly. Getting it right defines the total buy, but not how much to carry at any one point.

Now that you've accurately calculated the cost of inventory and determined the right amount of inventory to have on hand, it's time to look at ways to drive down inventory on your balance sheet by finding other places to locate the assets.

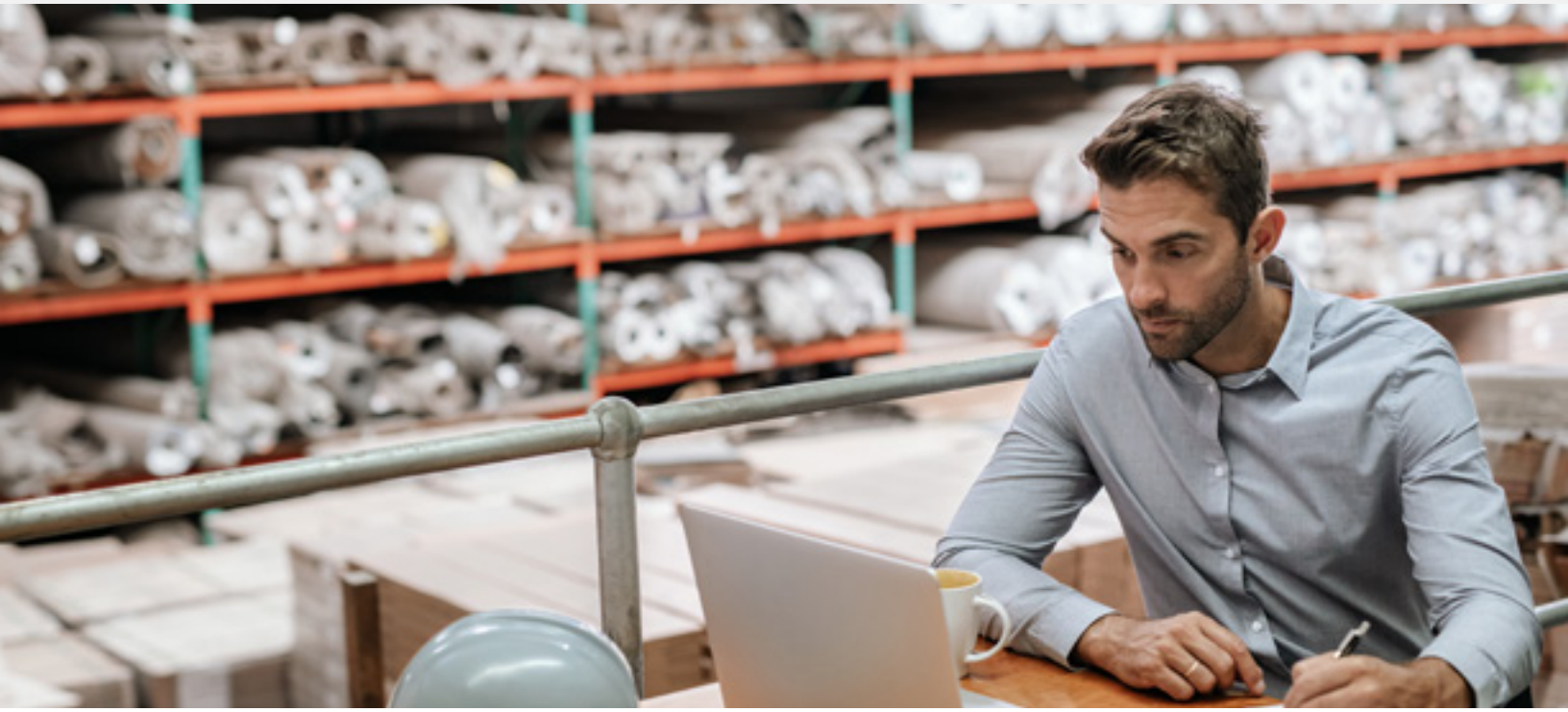
Where to Best Place Your Inventory?

Your own warehouses or manufacturing plants are certainly one option to hold inventory. These offer the highest levels of visibility, control, and ownership. But they also come with the high carrying costs we discussed earlier.

There are other options to consider and your partners can help. For finished goods, you may be able to push inventory downstream to your customers. This can be an especially good option for differentiated products in high demand and with little pricing risk.

For packaging and raw materials, you can look to your suppliers. The right supplier can inventory your packaging and substantially lower your inventory and subsequent carrying costs, dramatically improving your overall return on assets. This requires a supplier you can trust who also has operational expertise, financial stability, and the same goals as you. Be careful as not all suppliers are good at managing inventory, so a thorough vetting process is required.

Let's revisit the earlier example of the company with $15 million invested in packaging inventory. What if a supplier can reliably take half that inventory, store it at a nearby warehouse, and ship it to the company in daily releases? With a 30% carrying cost, the supplier has just saved their customer over $2 million annually. This is real partnership and value creation.



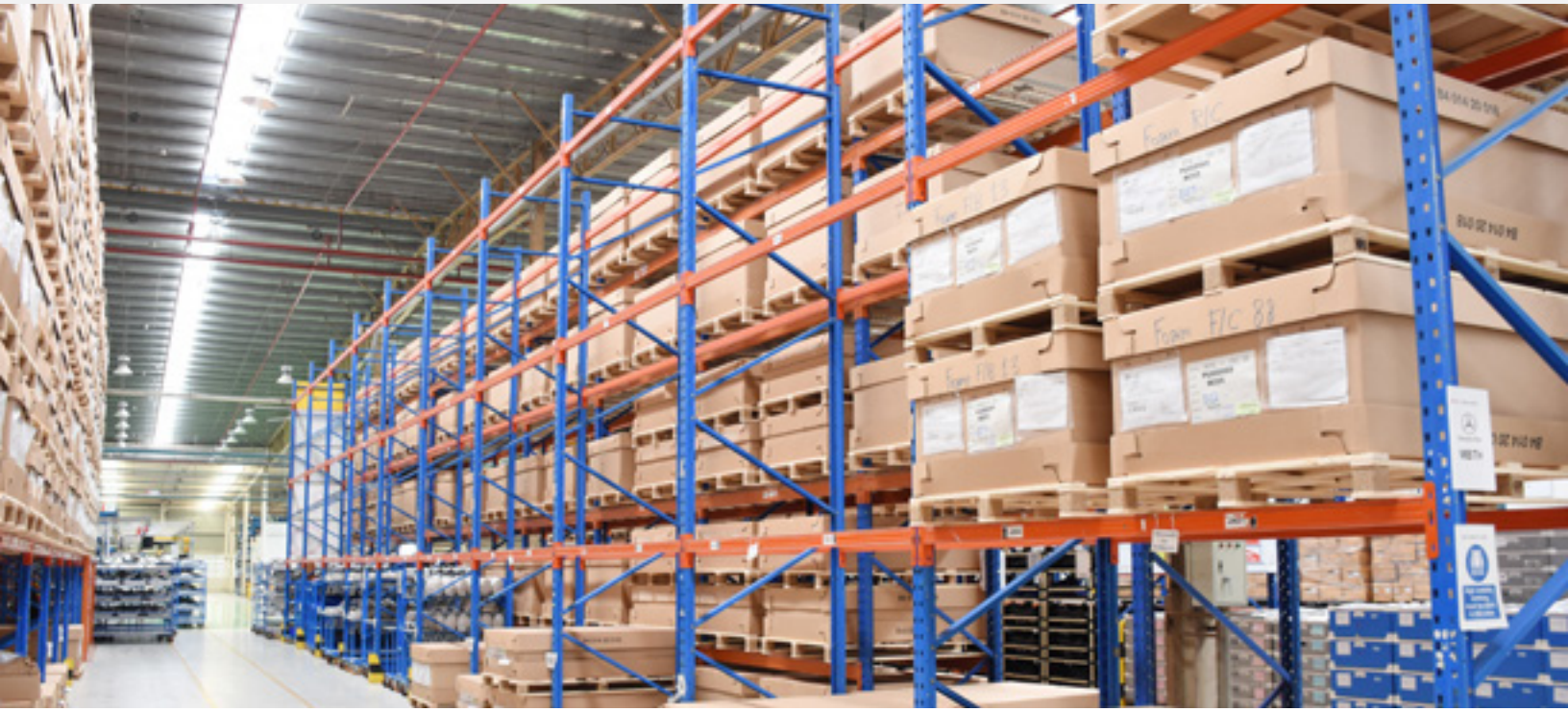
Getting Started

As the saying goes, it takes a village. Effective inventory management is a cross-functional issue. From finance to marketing, sales, procurement, manufacturing, and warehousing – team members across the entire organization play a role in creating and implementing a system to improve inventory ROI.

A successful cross-functional team needs to consider three fundamental questions with regard to packaging, raw materials, and finished goods inventories:

1. How much does your inventory cost?
2. How to right-size your inventory?
3. Where best to place your inventory?

Each business has different dynamics and imperatives. Answering question #1 will help prioritize inventory optimization in light of other corporate needs. Then functional expertise can help unlock the savings opportunities presented in questions #2 and #3. But be sure to keep your mind open to new paradigms and opportunities for partnership across the supply chain.



Summary

Inventory planning and management are neither simple nor sexy, but they can play a critical role in a company's success. Given the enormous amount invested in inventory (over $437 billion in the United States across all durable goods manufacturing industries as of March 2020) and the often-underestimated cost of holding this inventory, a company can rise above its competition through smarter inventory strategies.

The actions outlined in this paper – quantifying your true carrying cost, defining the right amount of inventory to carry within the system, and then locating that inventory across your suppliers, you, and your customers – provide a simple roadmap to higher ROI. There are pitfalls along the way, but with diligence and the help of experts and partners, you will be able to capture profits and efficiencies that boost your bottom line.

Berlin Packaging is the only Hybrid Packaging Supplier® of glass, plastic and metal containers and closures. The company provides a complete offering of packaging solutions, along with package design, warehousing and logistics services, financing, and a dedicated quality division for customers of all sizes, across all industries. Berlin Packaging brings together the best of manufacturing, distribution and income-adding service providers. With far-reaching and extensive sourcing, a global team of 1,500+ packaging professionals, and 130+ sales and warehouse locations across four continents, the company has the right products, expertise, and geographic proximity to help customers unlock their full potential through the power of packaging.