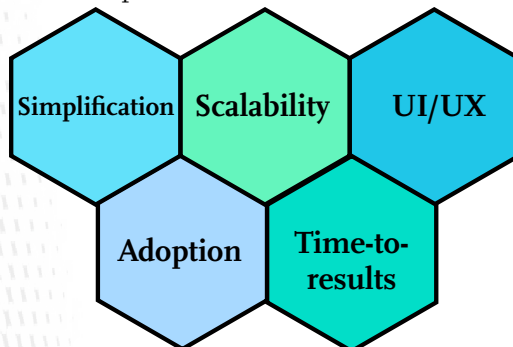# TITAN
C O N S U L T I N G

INSIGHTS

TITAN, MENDIX, AND WAREHOUSE MANAGEMENT
Supply Chain Use Cases with Low-Code

One of the most important questions with new technology is how to establish quantifiable **"Use Cases."** A use case addresses the important issue, *"Where does this fit into my business and portfolio?"* Use cases can provide a simple roadmap for target areas, business and technical outcomes, and realistic estimates of effort and timeframe.

Mendix is an enterprise application development platform and has a 'fit' in all functional areas of the business. However, Supply Chain is an often untapped and constantly evolving area where businesses can achieve rapid ROI and measurable benefits.

Let us first look at some of the criteria we use when assessing use cases, pilot programs, and software selection – simplification, scalability, UI/UX, adoption, and time-to-results. We have seen additional criteria used to evaluate technology solutions, but these are always on the shortlist.

Simplification   Scalability   UI/UX

Adoption   Time-to-results

In this series of articles, we will explore some functional areas where these criteria and the Mendix solution improves your Supply Chain. We have identified use cases in:

- Planning
- Procurement
- Production
- Warehouse Management
- Yard and Field Operations
- Quality Management

A notable pain-point is with inventory and the warehouse. Why? With ongoing significant disruptions to the supply chain, companies are at risk, saddled with new logistics challenges, lean inventory, unplanned costs, and organization challenges.

Fortunately, this is where you can achieve the fastest ROI on your Mendix investment.

While digital adoption in the warehouse has been predicted for many years, the ever-changing buying patterns are keeping logistics executives and managers awake at night. Customers are moving away from brick and mortar stores, resulting in warehouses facing new challenges, such as:
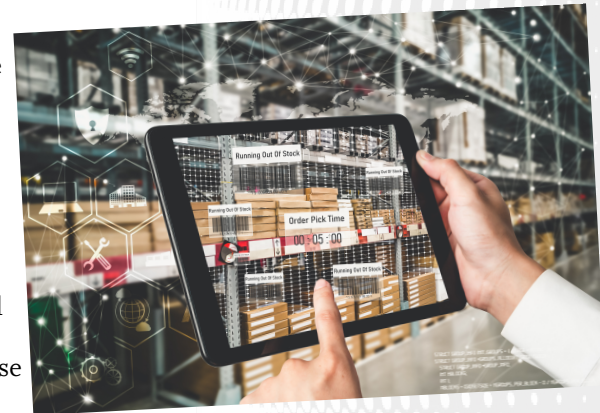
- Buying Patterns and Same-Day Home Delivery
- Lean or Insufficient Inventory Stocks
- Health and Social Distancing – less urgent, but still relevant

Let's break this down:

Most experts predict these challenges will require an overhaul of strategy, processes, software, and technology. The time to expect these changes to benefit a company is too far into the future – who can wait until 2030 to overhaul their warehouse with smart technology and robots? **Every business needs to do something today, or they may not be in business tomorrow!**

From looking at buying patterns, customers are shifting from going to stores and shopping centers to more frequently ordering online from Amazon, Walmart, and Shopify sites.

The Pick, Pack, and Ship process is essential for pivoting to the new demands. Just picking a case of Tide laundry detergent to ship to the local store is no longer the process. Instead, warehouse workers would rather bundle a 120 count pack of Tide Pods, a box of Bounce sheets, and a 64 oz. jug of OxiClean. Suddenly, it is not just stains that you are fighting. Although the order volume might increase, the result could show fewer SKUs on the order. Additionally, your customer likely isn't willing to pay much of a premium for Same Day Service, so you need to keep costs in check.

How can Mendix streamline the Pick, Pack, and Ship process to keep your costs down?

The Pick, Pack, and Ship process for SAP is complicated, tedious, time-consuming, and awfully expensive if it is not done correctly. Whether you are using IM, WM, or EWM solution, there are multiple steps, screens, tabs, validations, output options, and possibly other data points like Stock Overview that is integrated into this process.

Mendix can simplify and optimize the process by placing the critical data points and steps on a screen sequence or possibly on a single screen. And, by integrating the scanning of the bar codes, RFIDs, voice, or other digital enablers you can ensure the accuracy of the Pick, Pack, and Ship process. Because Mendix is tightly integrated with SAP, the background IDoc messages kick off the Transfer Orders providing real-time Stock Overview updates.

There are many variations to the outbound delivery process that also complicate the scenario. Examples include ordering a quantity different from what's available in the bin, picking an incorrect amount, or needing to confirm customer-specific instructions before shipment. These conditions or exceptions can be easily integrated into the Mendix app to reduce the possibility of errors and unhappy customers.

Scalable – at Pace:

As mentioned in the example above, buying patterns are changing due to various factors, with more customers requesting home shipments. How quickly can you adapt to this behavioral shift – months, maybe years on your ABAP, JAVA, or .NET platform?

Suppose you have the Pick, Pack, and Ship process already in place. Building a Mendix prototype with help from Titan's cross-techno/functional team, you could have it delivered in a couple of weeks or possibly just a few days, depending on complexity.

This Mendix capability could have you testing new Shipping App business rules in days. How many more customers could you win over with this enhanced agility, without sacrificing your margins?

Most of our customers are achieving break-even with three Mendix apps. Simplify the outbound shipments, and the reversal returns processing for outbound shipments. Add in your putaway requirements, or your inspection holds, and it is easy to find value-added use cases for the warehouse and Mendix.

Improving warehouse efficiency is not about sweat, muscle, and manpower, but driven by teamwork, imagination, and technology.

Next Steps:

No one can predict the speed of changes that can be forced on businesses, but **with Mendix and Titan Consulting you can face the changes and confidently overcome the challenges.** Titan uses Mendix, the recognized leader in the low-code/no-code application development platform, to provide you with the answers and solutions to adapt to the changing supply chain processes.

Learn how Titan and Mendix can satisfy your business's appetite for custom-developed applications. Contact your Titan Sales Director or visit our website at titanconsulting.net to get in touch with us and see more of our Mendix capabilities.