

How to Combat Labor Shortages with the Best Mix of Automation

Presented by:

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CAN YOU FIND QUALIFIED LABOR?

65% Extremely / Very Challenging

(from MHI 2019 report)

COMPANY CHALLENGES

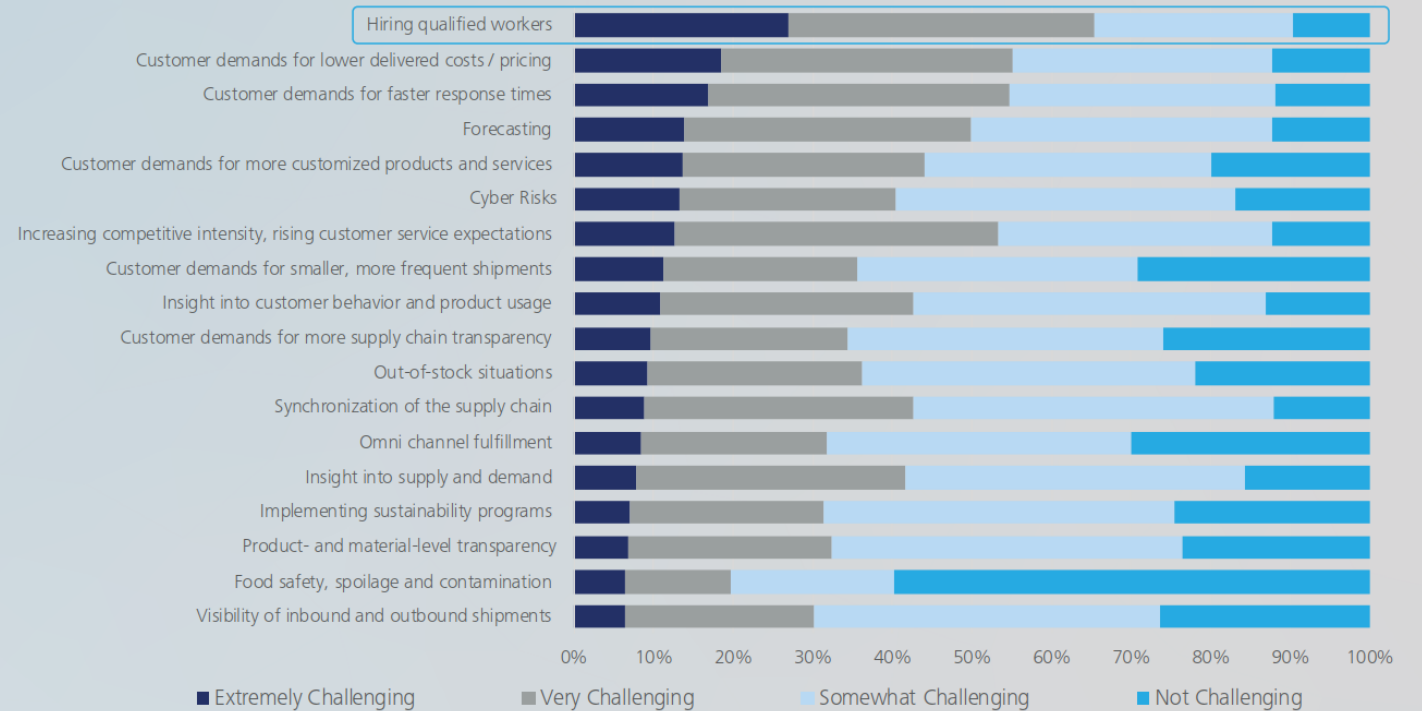
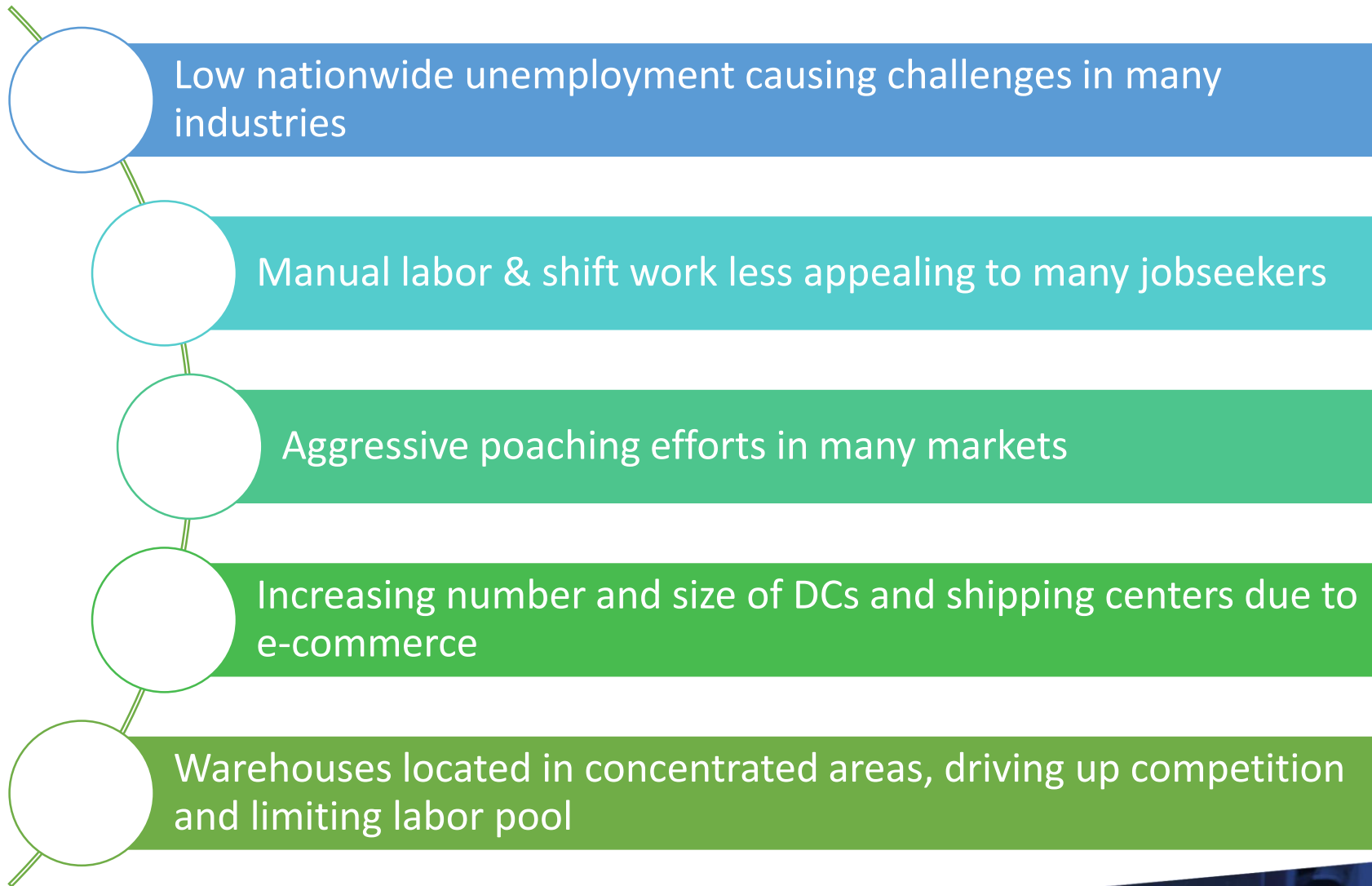
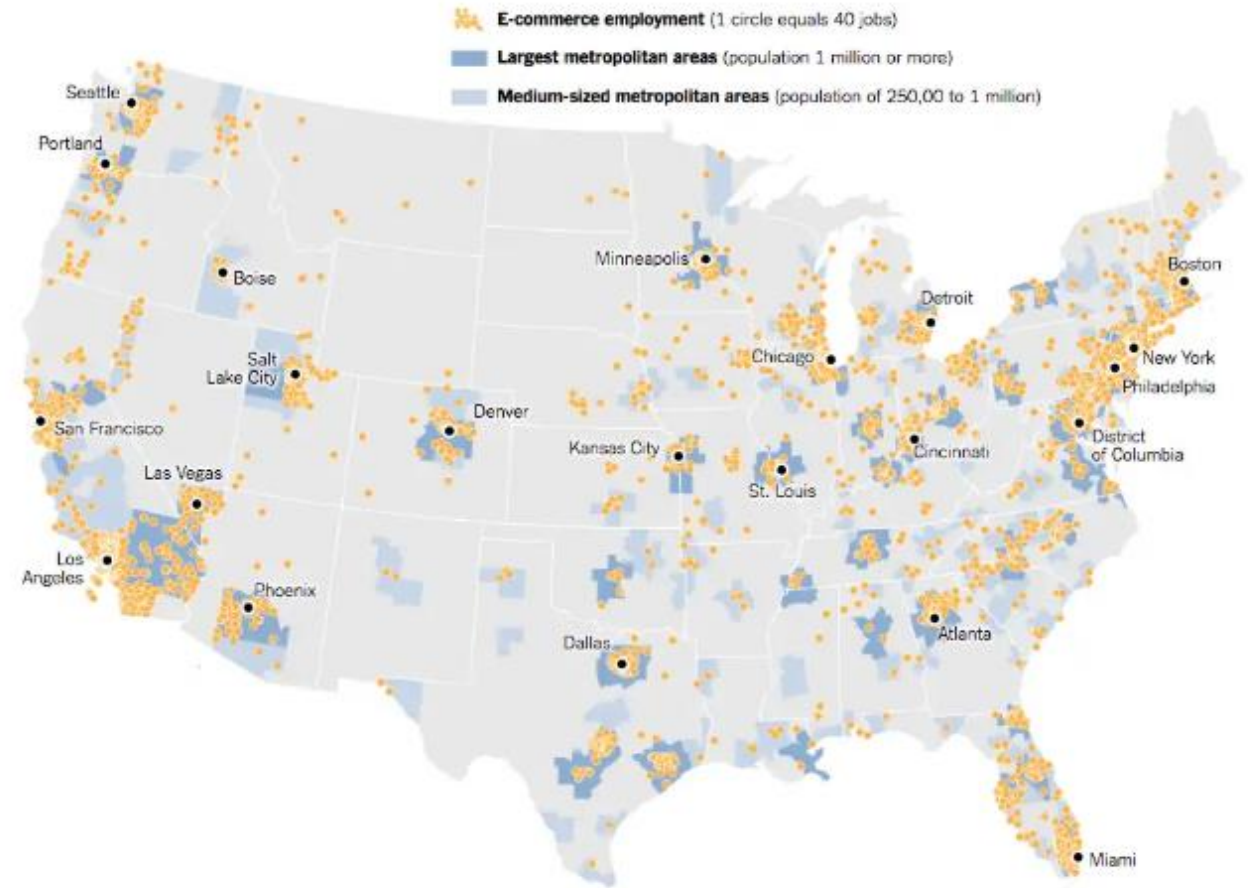


Figure 5 - Company Challenges

WHY IS THERE A LABOR STORTAGE?



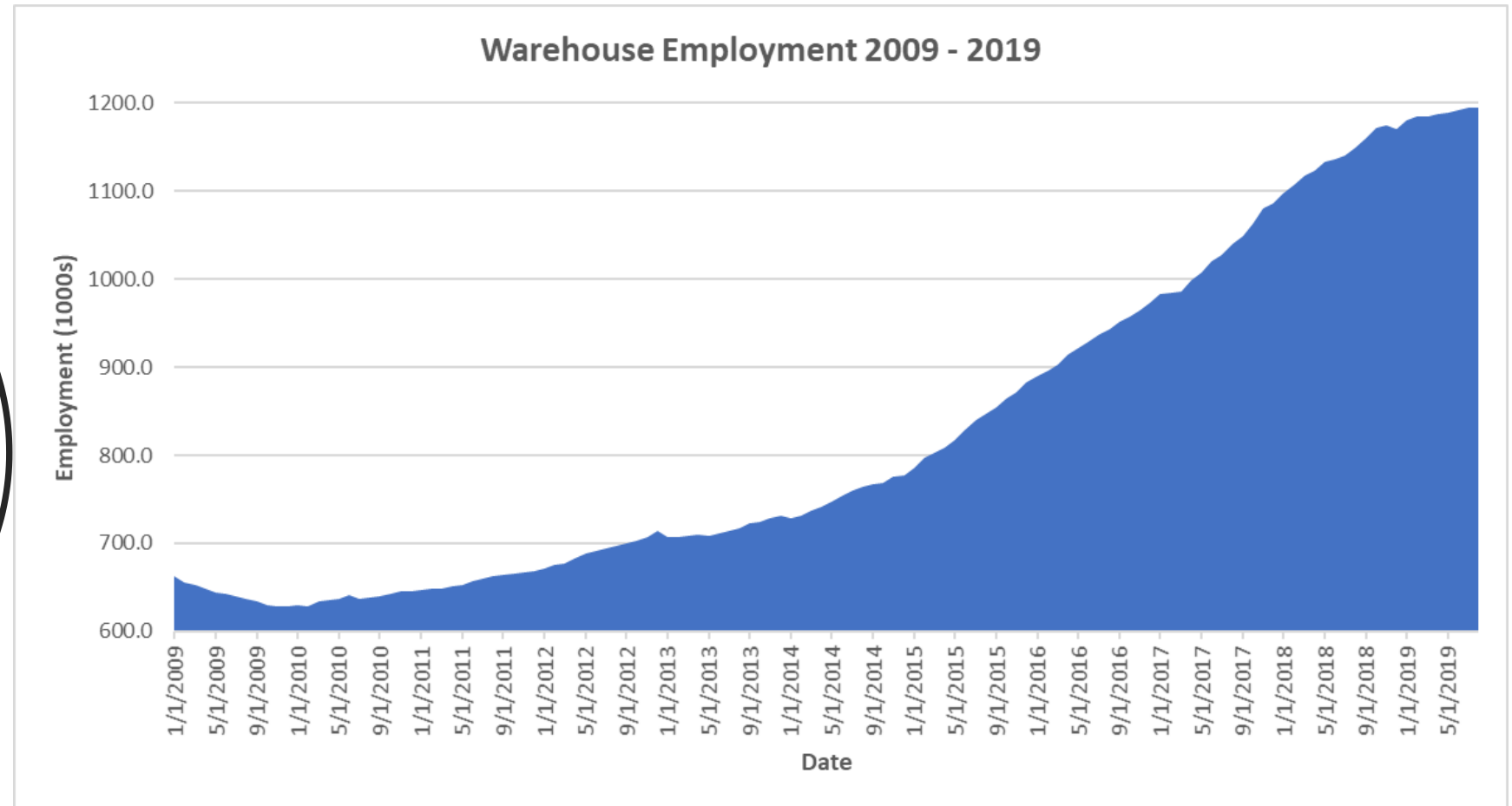
E-COMMERCE GROWTH = WAREHOUSE WORKER GROWTH



Source: Census Bureau

Source: [NY Times](#)

WILL THE
TREND
CONTINUE?



“2019 to 2023, expect demand for an additional 850 million sq. ft. of industrial real estate in the US, led by e-commerce.”

Source: Deloitte

SSIBILITIES.

HOW TO JUSTIFY AUTOMATION

Don't ignore
OR
avoid automation!

WHAT IS AUTOMATION?

‘Traditional’ Material Handling

- Conveyors, sortation, storage, etc.

Cutting Edge Material Handling

- Robotics, drones, etc.

Data Collection & Management

- Inventory Control, WMS, Internet of Things (IoT), advanced AutoID, analytics



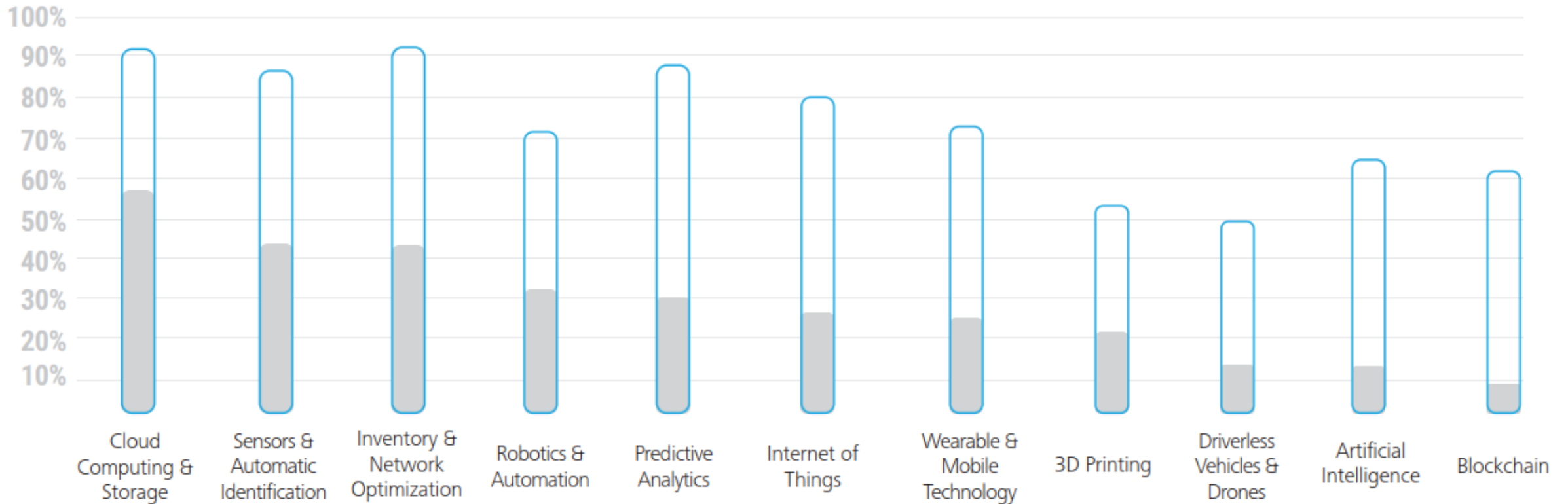
WHAT IS AUTOMATION?

ADOPTION TRENDS - PREDICTED USE

Technologies that are in-use today vs. their predicted use in 5 years

2019 Adoption Rate

Projected 5-Year Adoption Rate



Source: 2019 MHI Annual Industry Report

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WHERE AND HOW MUCH?

- What are the best areas to automate?
- What is the best amount of automation?
- There is no universal answer to either question
- Need to review your operation, challenges, and forecasted goals

WHERE AND WHAT OPERATIONS TO AUTOMATION?



Your worst labor-problem operation



Highly repetitive or process-oriented tasks



Labor intensive tasks



Error-prone tasks

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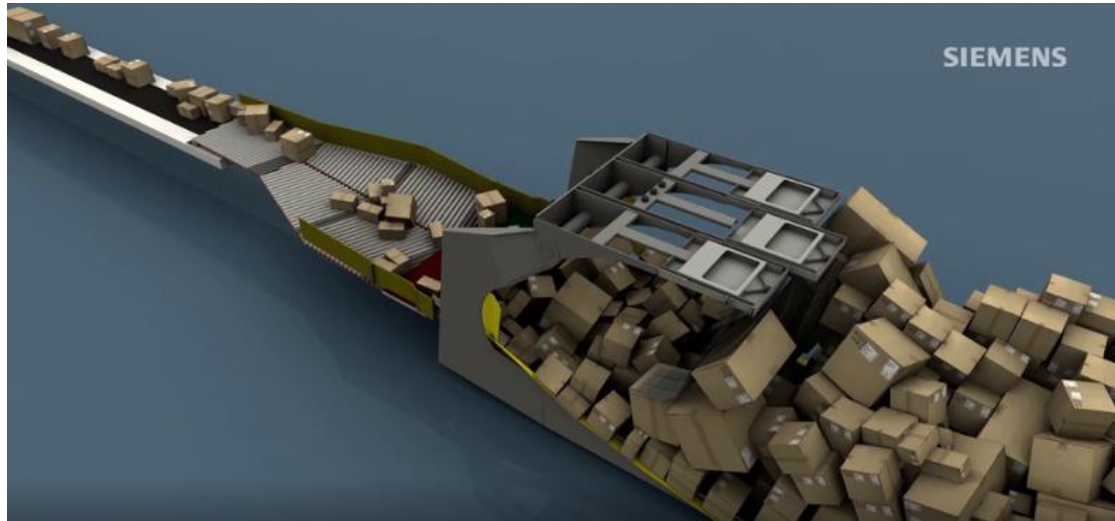
RECIEVING / INBOUND

- Inventory control starts here!
 - Barcode labels and scanning automation
 - The right software streamlines entire process
 - Automated cycle counting = significant labor savings



RECEIVING/ INBOUND

- Semi- or fully-automated truck unloading
 - Operator controlled extendible conveyor
 - Bulk unload



ORDER MANAGEMENT

- Warehouse Management System (WMS)
- Warehouse Control System (WCS)



PICKING

- Goal is to improve pick productivity and accuracy
- Move on from manual picking to RF, Voice, Vision based picking
- Implement automation-friendly pick layouts to reduce travel time



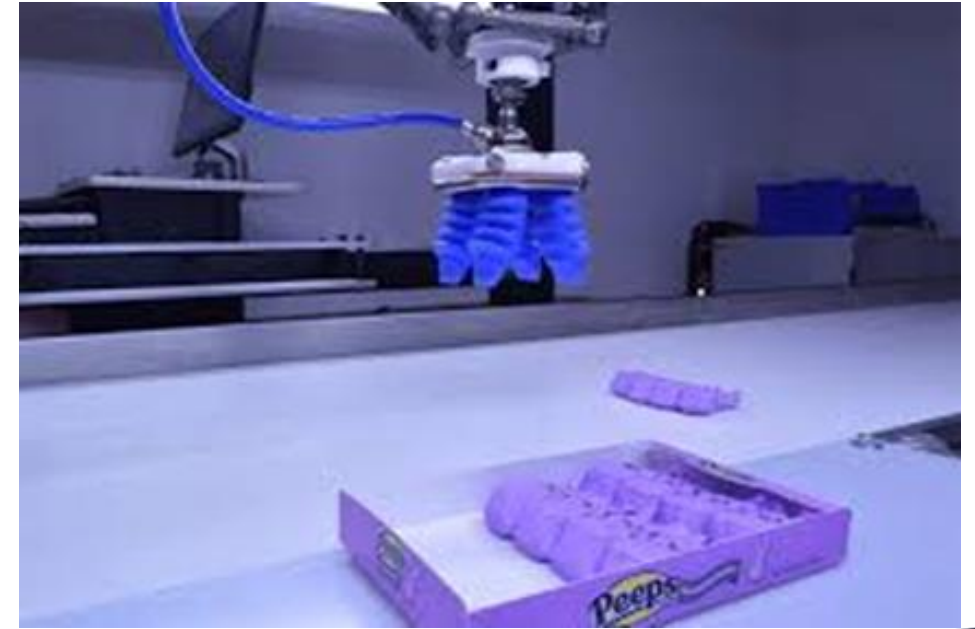
PICKING

- Goods-to-Person (GTP) automation



PICKING

- Robotic Picking



TRANSPORT

- Rise of Automated Guided Vehicles (AGV) and Autonomous Mobile Robots (AMR)



SHIPPING

- Semi- or Full-Automated Order Packing
- Automated Print & Apply
- Shipping Software



SORTATION

- Picking, Routing, & Shipping
- Use the right sortation for the rate and product!
- Low, Medium, & Hi-Rate sortation options



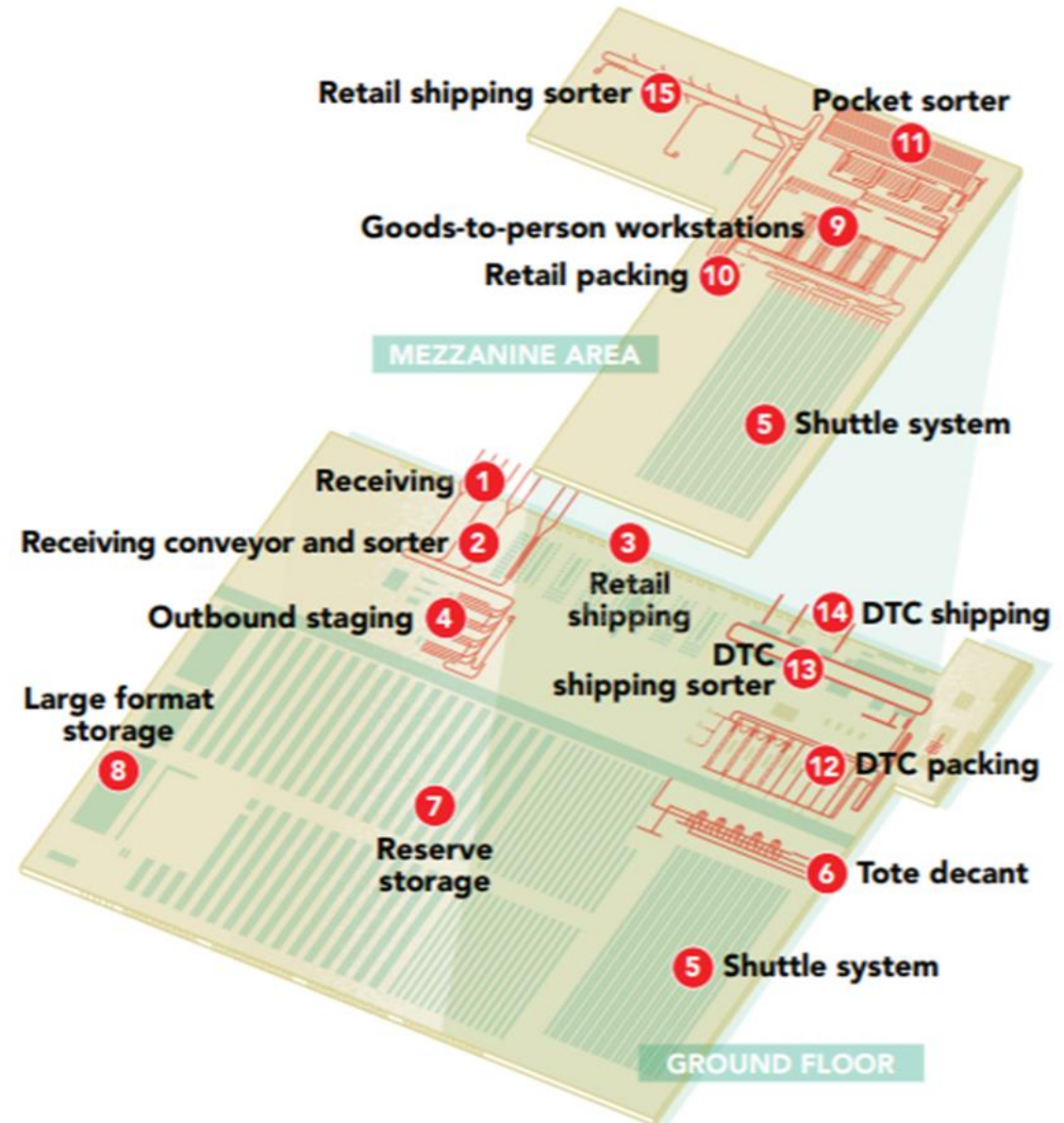


SORTATION

Non-Traditional Sorters



EXAMPLE: LARGE SCALE AUTOMATION DEVELOPMENT



Source: Modern Materials Handling

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SUMMARY



The labor shortage isn't getting better in the short term



Automation can help offset the labor challenge



You need to analyze your operations to determine the best fit



Don't avoid automation!

For more information:

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Or visit MODEX Booth #3019 and #2819

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