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# ***The Rise of the Urban DC – How Best Buy is Transforming Its Supply Chain***

Presented by:

Bastian Solutions

  
**Bastian**  
SOLUTIONS

a TOYOTA ADVANCED LOGISTICS company



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# Objectives

1. Modernizing the Supply Chain
2. Analyzing the Right Data
3. Selecting the Best Technology



# Modernizing Best Buy's Supply Chain

## The Right Team



## The Right Systems



## The Right Tools



## The Right Network



# The Perfect Storm of Re-Pack & E-Commerce



60%

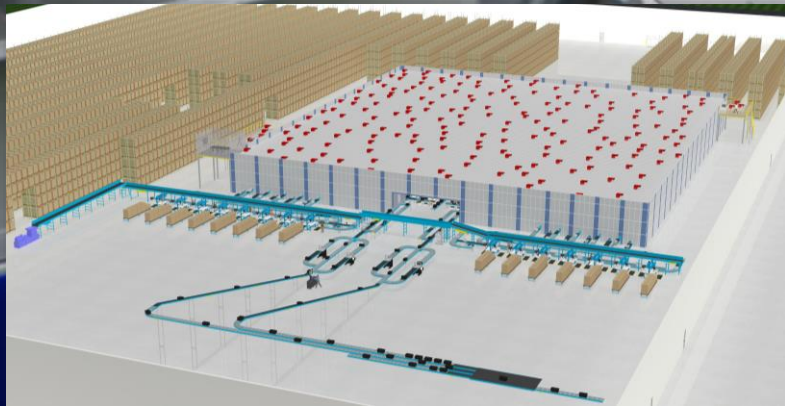
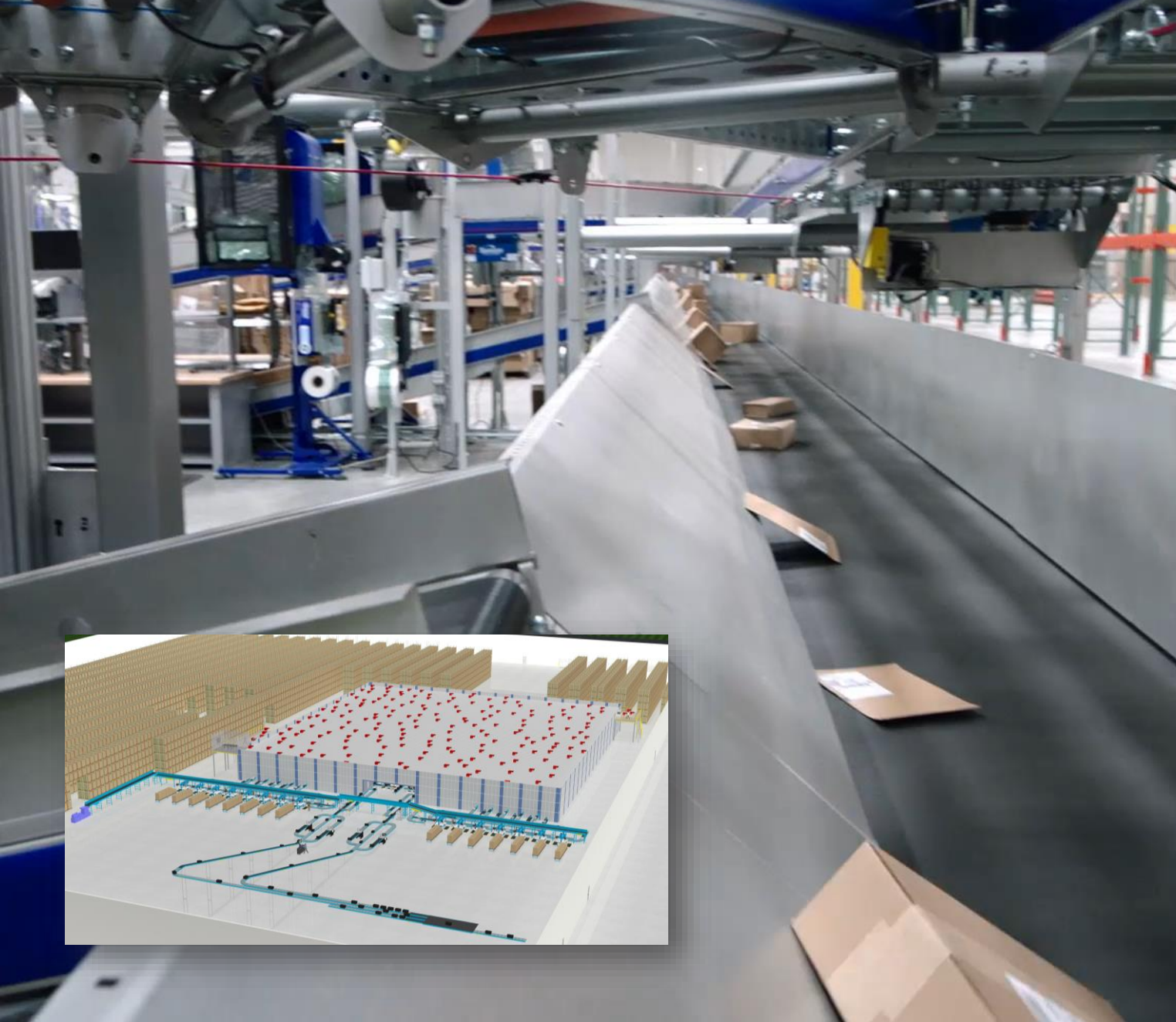
Units shipped  
are re-pack

80% of

SKUs  
Eligible for Repack

Explosion  
In  
E-Commerce

“Just in Time”  
Inventory





# Current RDCs + MECs

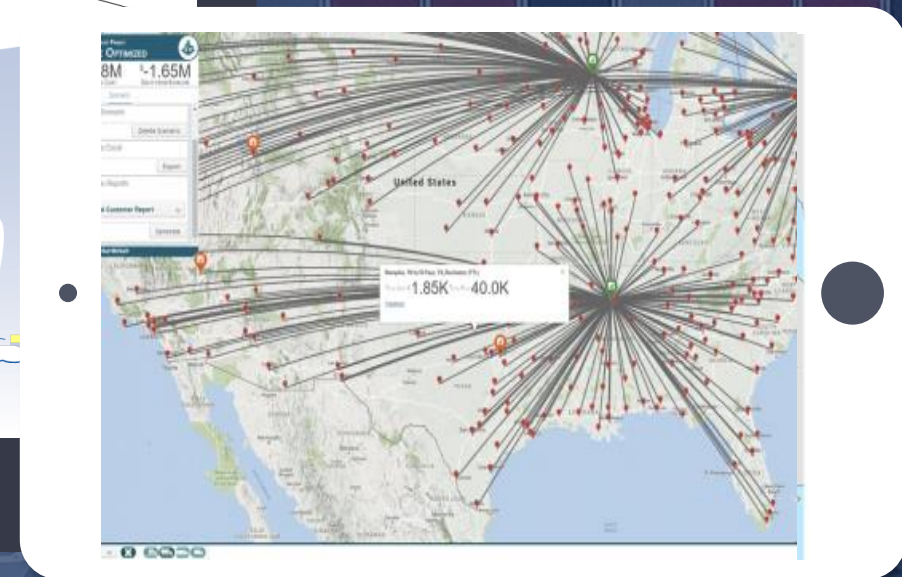
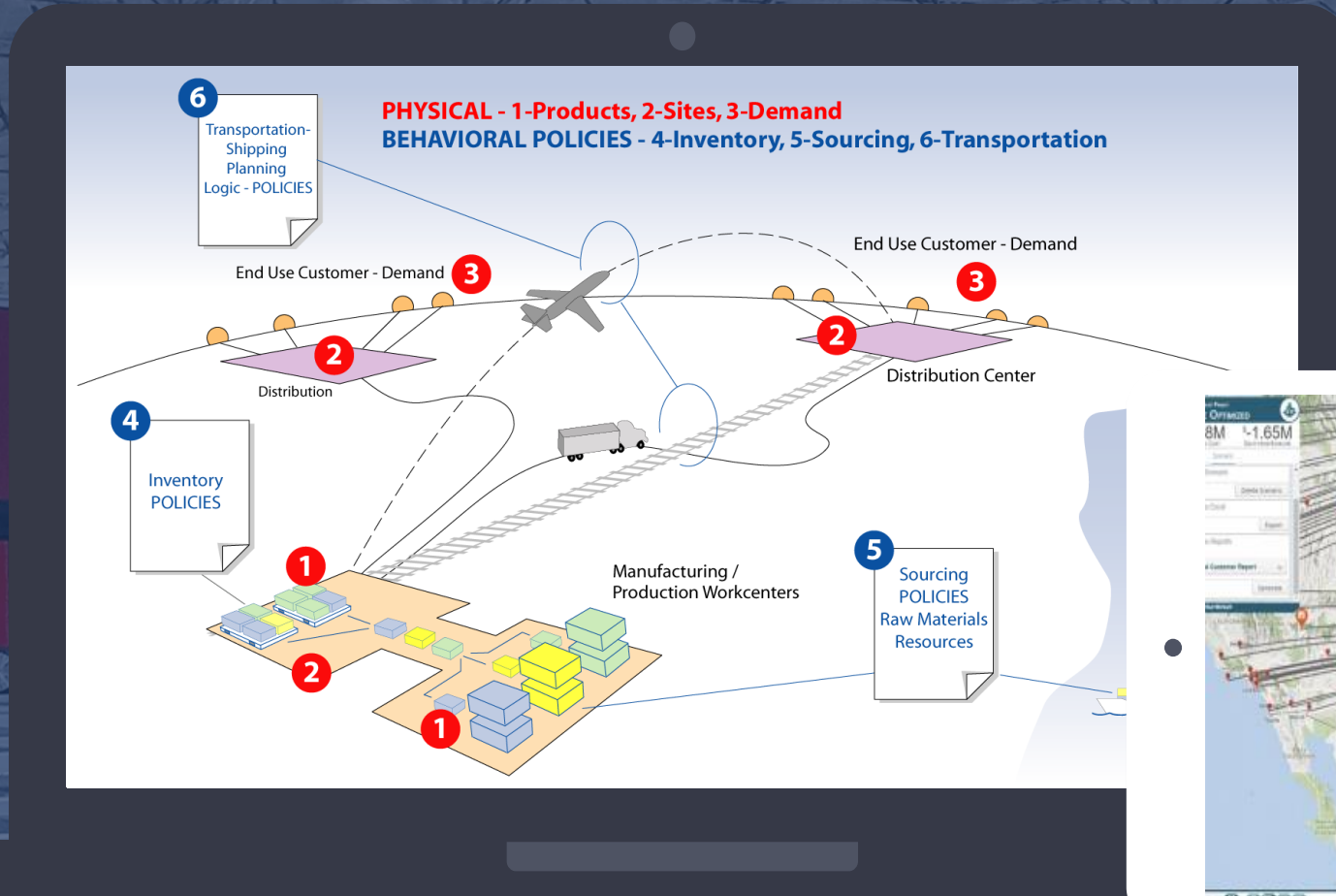
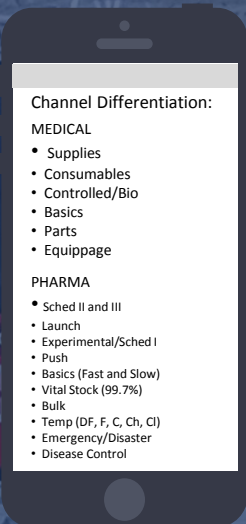




# Process for Achieving New Supply Chain Initiatives

Data Analysis Summary

# Network Modeling/Supply Chain Optimization

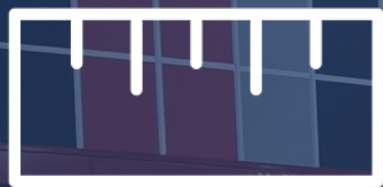


# Engineering Study Methodology



1

Define



2

Measure



3

Analyze



4

Design



5

Validate

Retail Units

20X

Holiday E-Commerce  
Volume Spike

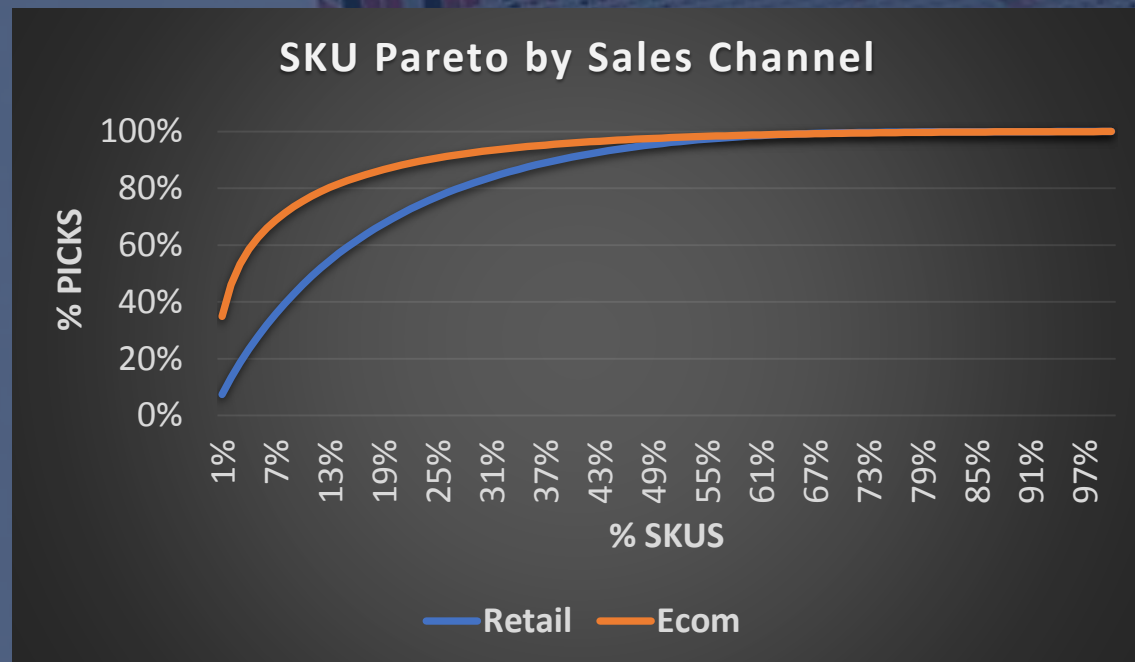
2-3X

Holiday Season Volume  
Warehouse to Stores

# Sales Channel Characteristics

Metric	Retail	E-Commerce
Units/Line	3.1	1.1
Lines/Order	160	1.65
Active SKUs/Day	6,400	1,640
Avg Lines/Day	53,500	5,000
Avg Units/Day	165,000	5,500

# SKU Pareto by Sales Channel



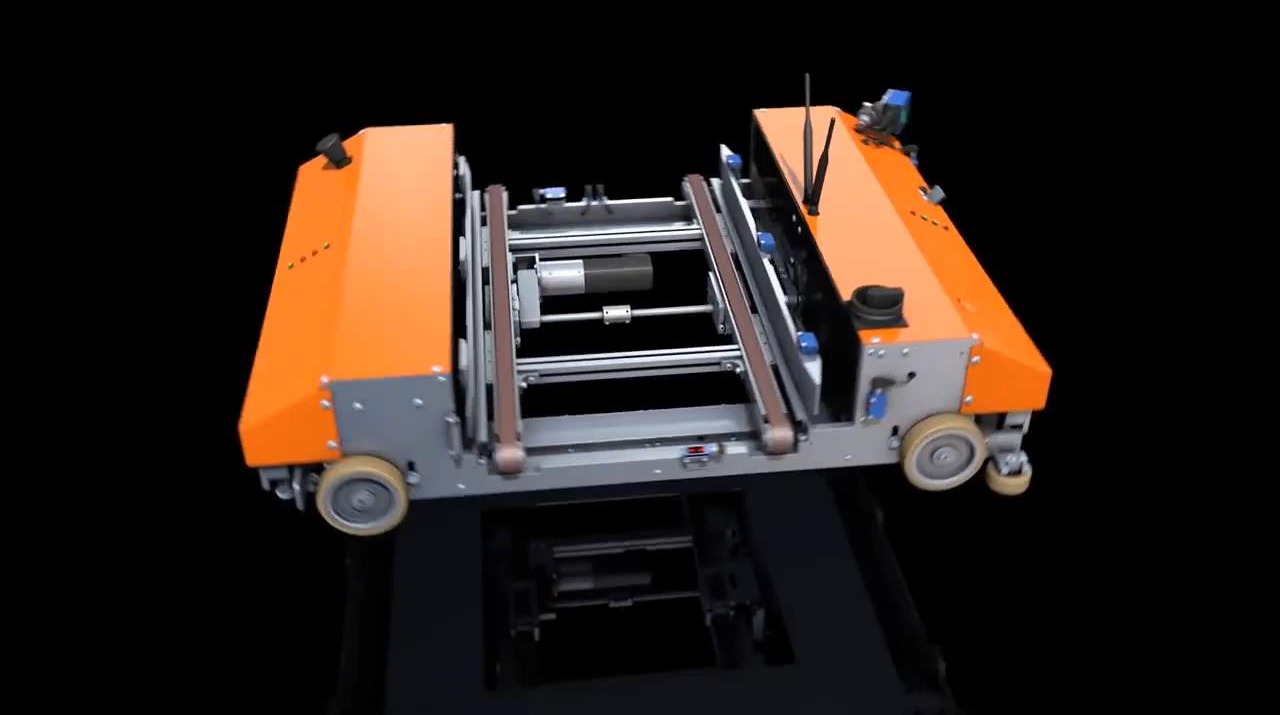
% SKUs	# SKUs	% Retail Picks	% E-Com Picks
1%	162	7%	35%
2%	324	13%	46%
5%	812	28%	63%
10%	1,624	46%	75%
20%	3,248	69%	87%
50%	8,120	96%	98%
75%	12,180	100%	100%

# Magnitude of Holiday Spike in Demand

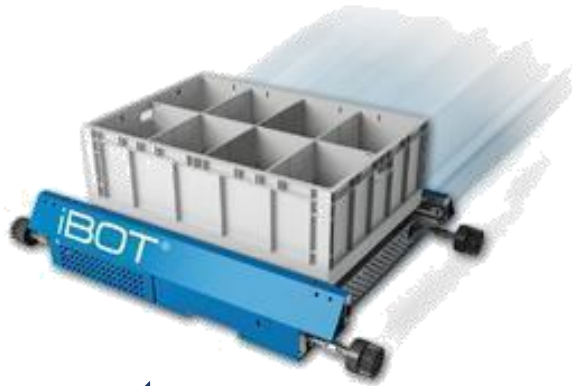
Utilized MECs to quickly satisfy high demand in densely populated urban areas



# Overview of Solutions



# Throughput Comparison



Picking  
Throughput

Response  
Time

Expandability

Operating  
Flexibility

Storage  
Density

# Why AutoStore?

MECs



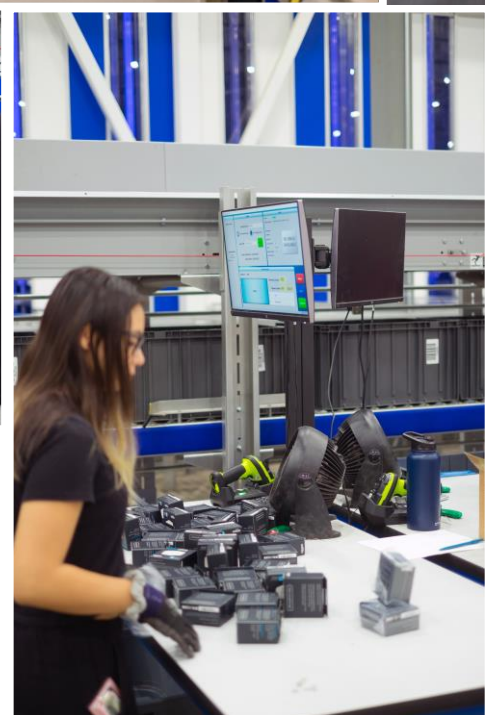
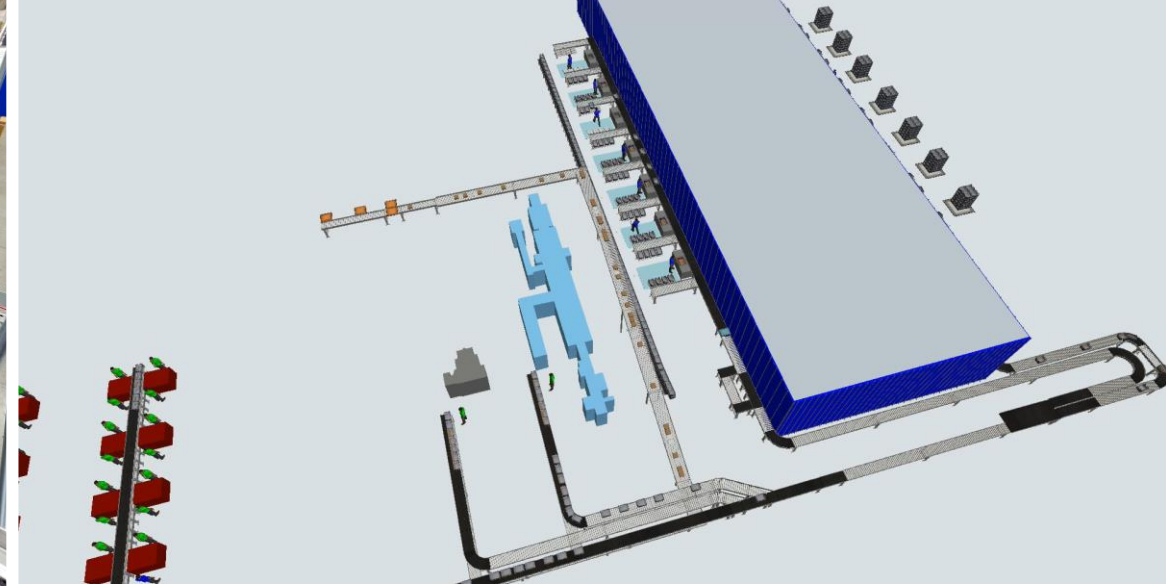
**Reduce  
Touchpoints**



**Ability to Batch  
From GTP Port**

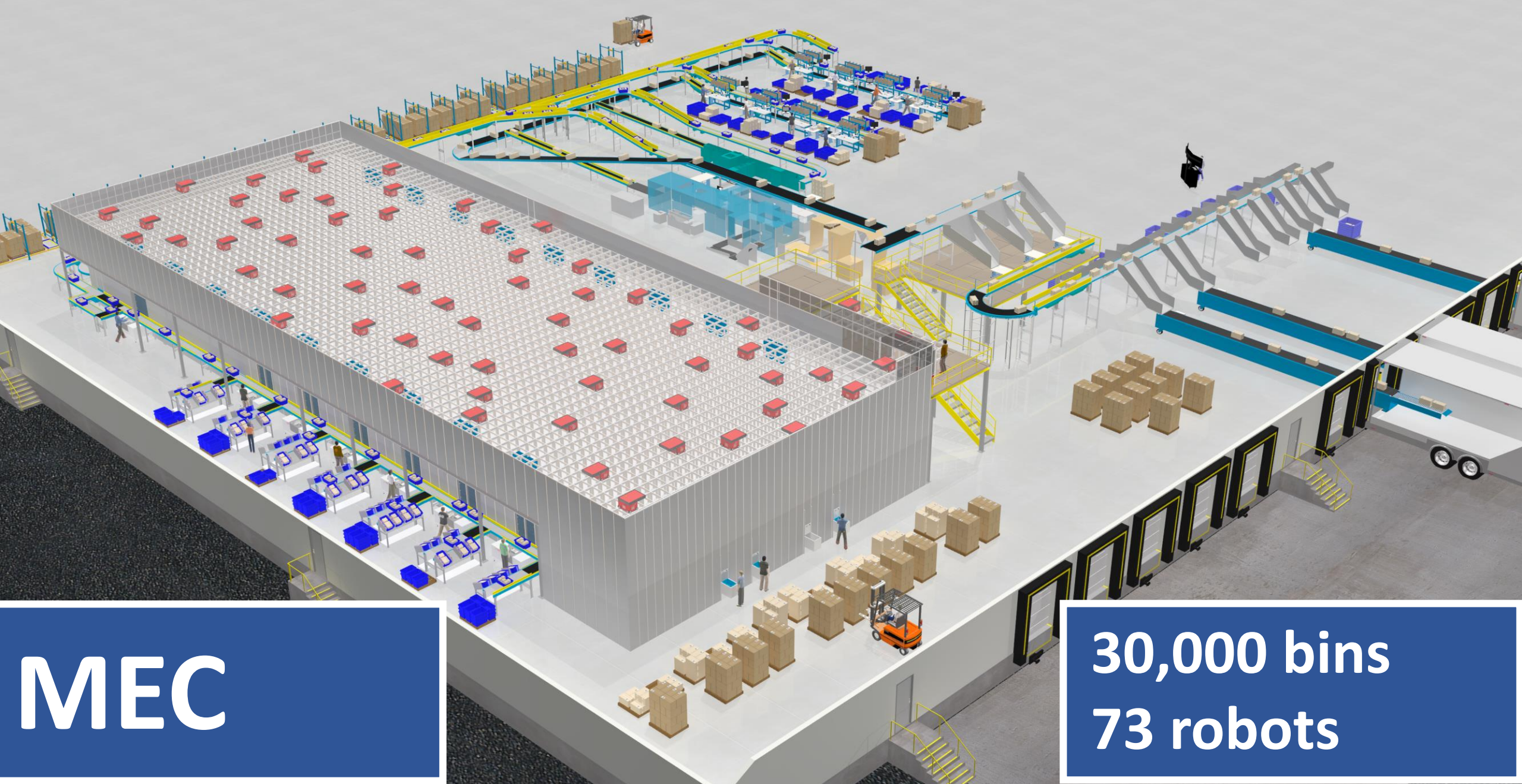


**1 AS/RS for  
Both Sites**



RDC

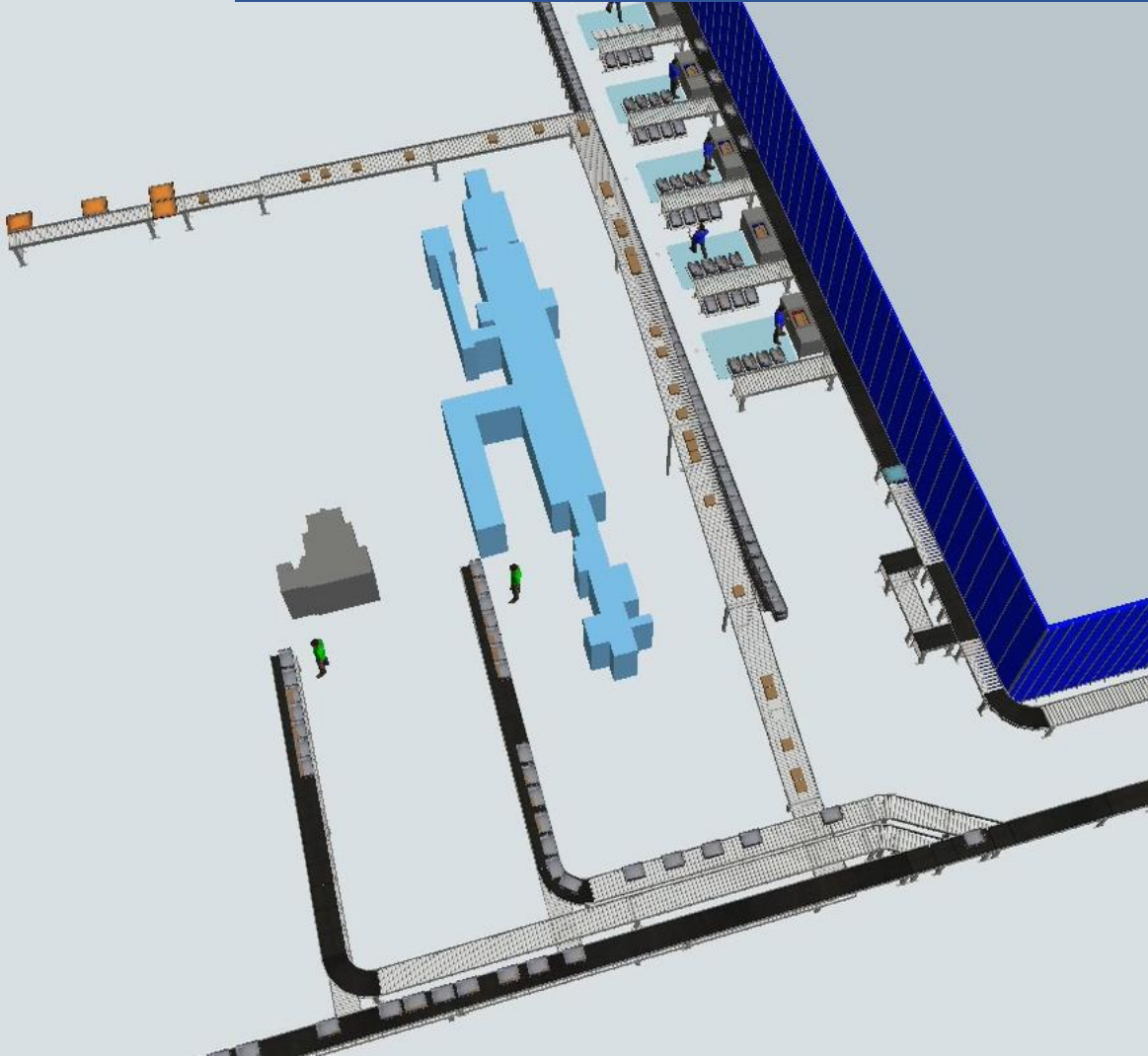
150,000 bins  
195 robots



MEC

30,000 bins  
73 robots

# Computer Simulations Modeling



# Process for Achieving New Supply Chain Initiatives



**Right  
Team**



**Right  
Consultants**



**Educate the  
Team**



**Define Scope  
Acquire Funding**



**Vendor Selection  
Design Team  
Implementation Team**

**Build. Learn. Refine. Repeat.**



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