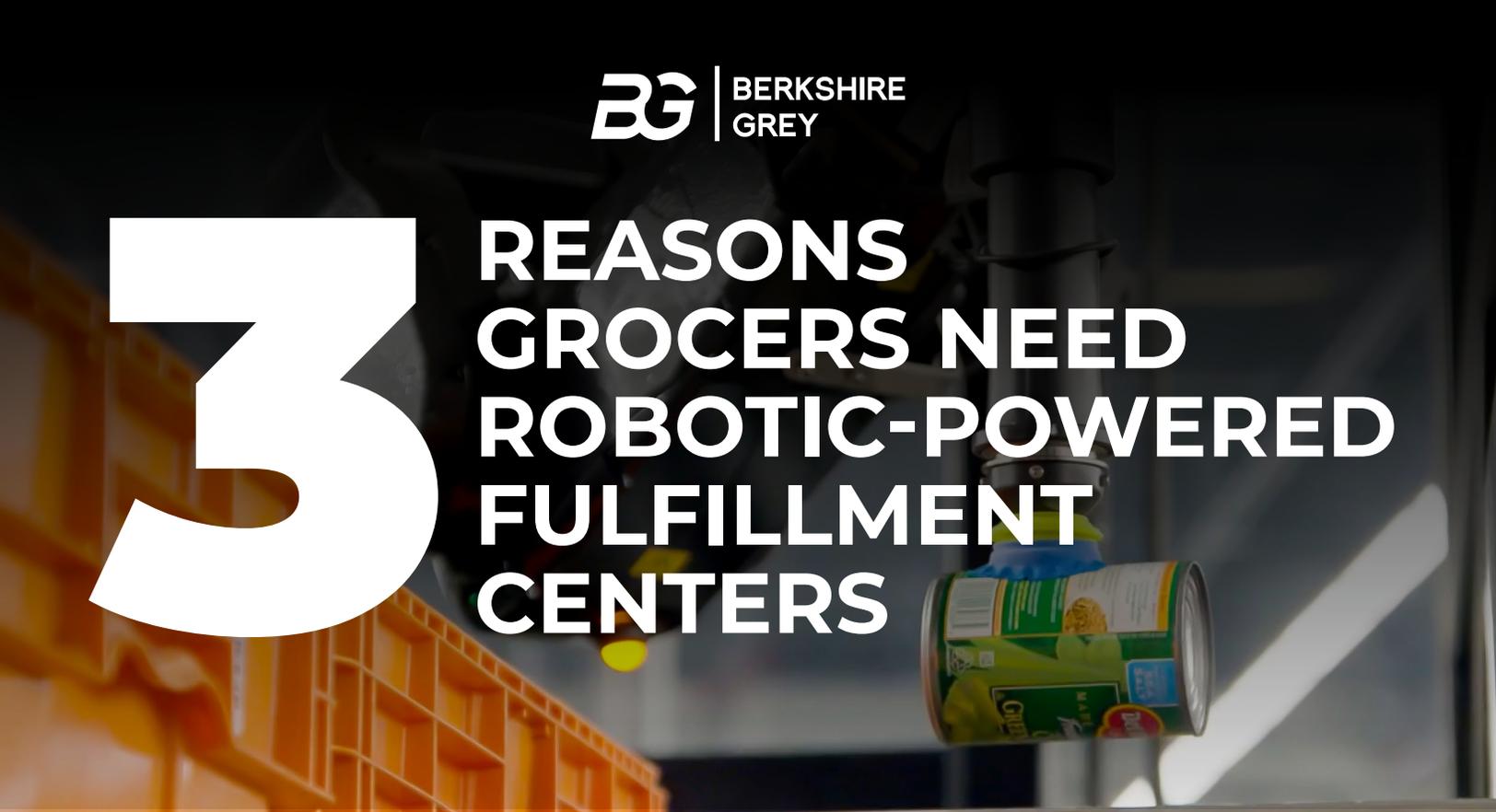


3 REASONS GROCERS NEED ROBOTIC-POWERED FULFILLMENT CENTERS



Store replenishment and eCommerce fulfillment are becoming increasingly automated to combat the challenges of limited labor availability, to meet elevated consumer demand, and to build omnichannel grocery strategies.

The pandemic forever changed grocery shopping. Amid signs of recovery, it remains clear that many people plan to keep buying online for groceries. Consumers today want the convenience of choice between in-store shopping, curbside pickup, buy online pickup in store (BOPIS), and home delivery. For grocery retailers, that means taking a critical look at current fulfillment operations to plan for an immediate future that:

- Solves labor scarcity in a limited market.
- Keeps customers happy with omnichannel options.
- Balances inventory to manage online and in-store inventory.
- Improves speed and cost of last-mile delivery.
- Accelerates fulfillment processes across the entire supply chain.



VIDEO:

See our AI-enabled robots in action with grocery items here.

**Robotic Automation Solutions
for the Grocery Industry**

Distribution centers, micro-fulfillment centers (MFCs), nano-fulfillment centers (NFCs), and dark stores powered by Intelligent Enterprise Robotics are the solutions grocers need now to compete and better serve their customers. **Here's why.**



1

AI-ENABLED ROBOTICS OVERCOMES LABOR SCARCITY CHALLENGES FOR GROCERY.

Despite reports of economic recovery in some industries, grocers continue to find it difficult to hire and retain workers at current wages. The increases in wages across the U.S. could further constrain grocers' ability to staff distribution centers and stores, with some businesses recently blaming specific store closures on mandates for increased pay for grocery workers.

Even if finding labor was not a challenge, robotic picking, sorting, and sequencing when combined and collaborating with the workforce delivers more successful outcomes. For example, several grocers today are already leveraging robotic automation for store replenishment and eCommerce fulfillment.

- Ahold Delhaize partnered with Swisslog to open a 124,000-square-foot eCommerce fulfillment center that will feature a combination of robot and manual pickers.
- Kroger debuted its first automated fulfillment center in Ohio earlier this year, partnering with Ocado to automate online grocery order fulfillment.
- Walmart announced plans to build automated mini warehouses in its existing stores to speed up delivery and pickup times for grocery orders.

Industry watchers report that retailers, including grocers, are looking to robotic automation to support flexibility, labor optimization, and improved margins. For instance, Gartner in its June 2021 Market Guide for Smart Robots in Retail states: "The critical need to optimize costs, due to labor shortages and minimum wage increases, is driving continued retailer interest and investment in smart robots throughout 2021."

2

MICRO-FULFILLMENT OPERATIONS COUPLED WITH ROBOTIC PICKING IMPROVES THE "LAST-MILE".

MFCs and NFCs operate like mini warehouses, often bolted onto existing brick-and-mortar stores, or placed in a smaller warehouse space in a location close to consumers. Dark stores are existing stores that have been converted into fulfillment centers — they're also close to consumer shoppers and used to fulfill eCommerce orders. These models have the advantage of proximity to customers, which cuts down on last-mile delivery expenses, while creating the operational environment of a larger warehouse within a compact footprint.

"MFCs are designed from the ground up to leverage automation or robotics to drive scalable and adaptable fulfillment speed at low cost."

Gartner, Supply Chain Brief: Grocery Retail Micro-fulfillment Centers are Emerging and Are More than Just Hype, Tom Enright, February 18, 2020



If grocers can make use of existing space by deploying robotic automation systems to pick and pack orders, it removes the expense of expanding to a new location to fulfill more orders — and lessens labor dependency. Designed to separate eCommerce fulfillment operations from in-store shopping, these emerging fulfillment center models are ripe for robotic automation technology to prioritize picking and sorting for eCommerce orders. The hyper-localized nature of these compact fulfillment centers also helps grocers keep their promise of speedy availability of online orders and ultimately can enable delivery of customer orders in two hours or less.

Grocery and supply chain leaders should consider a few key factors to determine if an MFC or NFC could be a successful fulfillment strategy for them going forward.

- Identify the capacity limit of stores that process online order fulfillment to gauge the urgency for an innovative fulfillment operation such as MFC or NFC to increase capacity capabilities.
- Determine demand for online order volume in certain locations such as urban facilities to understand if an MFC or NFC will be able to provide enough future capacity to meet demand in the area.
- Evaluate how an MFC or NFC might fit into a larger distribution network with regional hubs and other distribution centers.

3

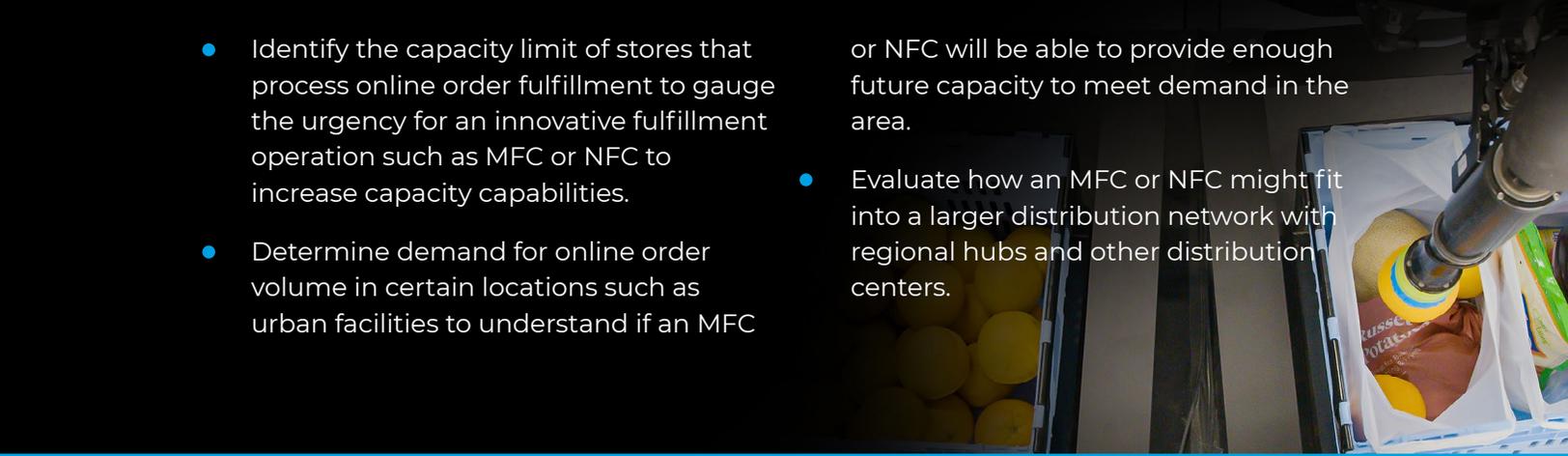
GROCERS MUST LEVERAGE AUTOMATION TO BUILD OMNICHANNEL FULFILLMENT STRATEGIES.

During the pandemic, the nature of fulfillment changed for grocery retailers. Like other retailers that have paved the way before them, grocery retailers will need to address the customer experience online and in store. According to recent [Symphony AI research](#), omnichannel grocery shoppers spend up to 20%, a figure grocers should not ignore. For instance, customers that shop online for in-store pickup often buy more items when they arrive at the physical store.

“Because most grocery retailers operate with narrow margins, it’s important for them to find ways to gain more share of wallet while building customer loyalty,” said Chris Koziol, CEO, [Symphony Retail AI in a statement](#). “Providing customers with an online channel to shop how and when they want is a key differentiator, as we see with the increasing loyalty of omnichannel shoppers observed in our data.”

Grocery retailers looking to develop omnichannel strategies must consider the following:

- Physical stores need more frequent shipments of less quantities of individual items to avoid over-stocking while also ensuring the products customers want most are on shelves.
- Traditional warehouse automation systems were not designed to pick and pack this broader variety of products in less-than-case amounts.
- Robotic picking, packing, and sorting solutions convert goods-to-person stations into goods-to-robot stations.



This shift in grocery fulfillment calls for robotic picking coupled with mobile robotics for order sortation, which:

1. Autonomously picks items, eases, and inner packs for break pack store replenishment.
2. Sorts and packs the products customers want where they want them faster.
3. Helps grocery retailers optimize store shelf inventory when store back rooms are shrinking or non-existent.
4. Opens up new processes for better store restocking and efficient delivery van loading that is matched to optimal delivery routes.



INTELLIGENT ENTERPRISE ROBOTICS WILL TRANSFORM GROCERY OPERATIONS

Grocery distribution centers, MFCs, NFCs, and dark stores are prime spots for adding robotic automation to streamline fulfillment processes, manage store replenishment, reduce labor requirements, and get goods to consumers more efficiently and faster. Competition is fierce and those adopting Intelligent Enterprise Robotics are gaining a competitive advantage. Berkshire Grey's IER solutions for grocery leverage AI-robotic automation to reduce labor dependency, increase capacity, and improve margins. The time is now to deploy Intelligent Enterprise Robotics.

Berkshire Grey's AI-enabled solutions for grocery can decrease operational costs associated with picking by 40% to 70% because they are:

- Designed to move products directly into outbound orders.
- Modular enough to scale as demand shifts.
- Compatible with manual and other automated processes to offset labor costs.
- Flexible enough to fit into any available space.
- Capable of transforming compact spaces into agile fulfillment operations.
- Deployable in existing and new fulfillment environments.
- Available via both CapEx and Robotics-as-a-Service (RaaS) implementation models.

To learn more, explore robotic automation in grocery at [berkshiregrey.com](https://www.berkshiregrey.com)