

Körber Supply Chain

Master Class Series

Today's Class-
Hands-free warehouses:
How voice and vision improve safety



Speakers



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Professor

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The University of Tennessee Knoxville



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Körber Supply Chain

Supply Chain Master Class: Workforce Efficiencies & Safety

Why are we here? What are we trying to accomplish?

Class Schedule:

- September 8: Going beyond picking: How can voice create efficiencies
- September 10: Digital Twins: Stimulating efficiencies in your warehouse
- September 15: Hands-free warehouses: How voice and vision improve safety
- September 17: How robots can increase safety in your warehouse
- September 22: Adding automation to improve safety and increase productivity

Master Class Series – On-Demand

- *Addressing Labor Challenges*
- *Cold Storage Trends*
- *Warehouse Technology Excellence*

Housekeeping



All phone lines are muted

Recording of today's class and slides will be email to you within 48 hours

Questions:

- Ask questions during today's class in the GoToWebinar Questions window
- Questions will be addressed at the end of today's class or we will follow up with questions via email after class

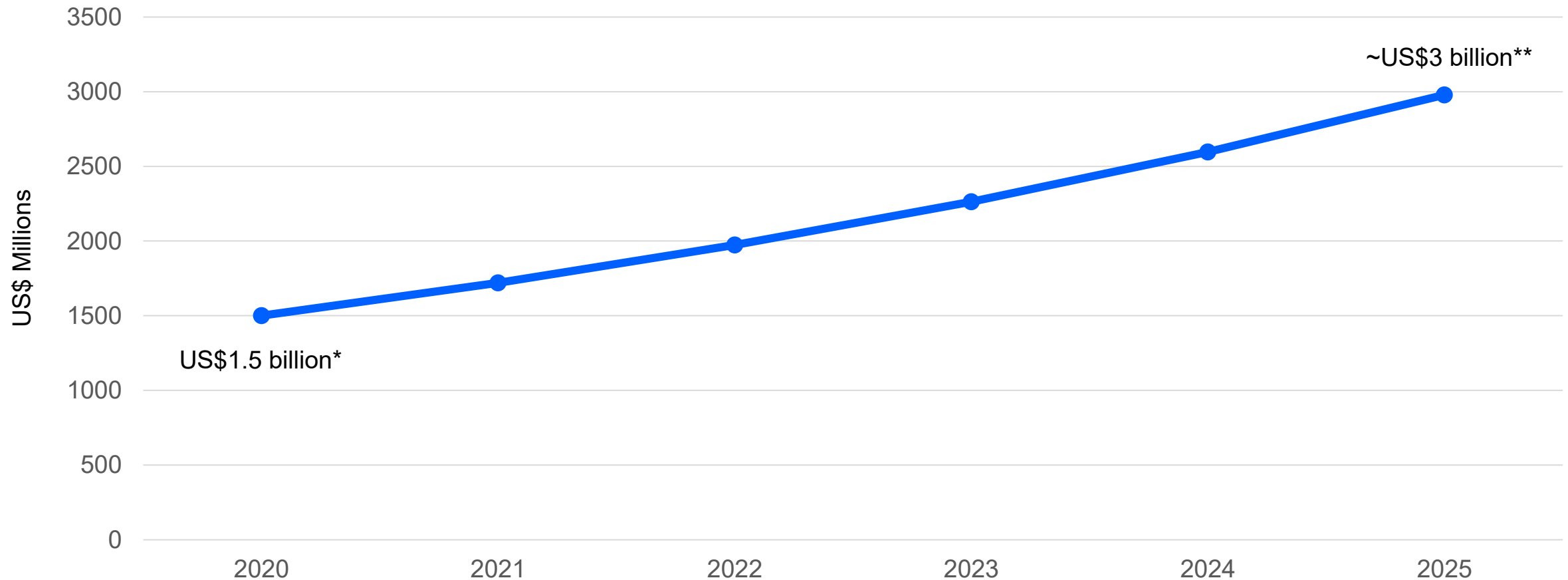
Handout: 15 Ways to Improve Worker Safety

Poll Question: What current technology is being used in your warehouse?

Dropping Paper / Picking Up Voice & Vision



Global Market for Voice-Directed Warehousing Systems



Compelling Reasons for Seeking Voice or Vision Guidance



- Productivity gains, up to 35%
 - NOTE: Order picking accounts for 50-55% of warehouse operating costs
- Accuracy improvements, up to 85%
- Training time reduction, up to 50%
- Worker satisfaction and tech adaptability
- Employee turnover reduction, estimated at 50%
- Safety enhancement and damage reduction

Tailar Kennedy (June 17, 2020)
What is Voice Picking? Supply Chain Technology Blog
Körber Supply Chain

The DC/Warehouse Market



Vast majority of warehouses still are manual or semi-automated

People are the key resources enabling these operations

- Yet in many, warehouses associates are challenged with sub-optimal equipment and processes

Voice and vision offer some of the safest and most ergonomic ways to enable your associates to perform their important work



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What do we mean by “Voice” and “Vision”

Voice

- Voice-directed work is the use of **structured dialog** to guide users through **application-specific workflows** and **capture data** that improve **accuracy, productivity and safety**.



Vision

- Vision guided work is the use of **heads-up displays** and **augmented reality** to guide users through **application-specific, data-rich workflows** that improve **accuracy, productivity and safety**. Often **combined** with data capture technologies such as **scanning**.



Safety: Awareness



Training and safe design is a key part of ensuring the health and safety of your employees

Warehouses have numerous risks that need to be avoided by associates:

- Moving vehicles
- Automation
- Slips, trips and falls
- Safe storage, retrieval and stacking

Senses, particularly eyes, are critical to associate safety

- User interfaces are a key part of modern warehouse operations and can negatively impact awareness

Heads-up user interfaces enable good awareness and focus, significantly improving safety



Safety: Ergonomics



The most common cause of physical injuries in warehouse and storage facilities involves improper manual lifting and handling

- Physical Strain
- Repetitive Motion

Builds up over time rather than caused by sudden events

Can be minimised with good posture and training

Hands-free user interfaces improve ergonomics and comfort, with the added benefit of increased efficiency



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Operating in a Pandemic



COVID-19 has challenged supply chains in many ways, including ensuring the safety of our people – our most valuable resource

Voice supports:

- Operation together with PPE (face masks)
- Individual, easily swappable headset components that have direct body contact (headbands and microphone windshields), or individual headsets
- Easy sanitisation of mobile devices
- Proximity tracking on latest mobile terminals



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Questions & Discussion



How Robots Can Increase Safety in your Warehouse

By relieving people of some of more ergonomically challenging tasks, robots are key to increasing warehouse safety. From lifting and moving heavy items over long distances, to carrying out more monotonous tasks, AMRs can help to eliminate repetitive injuries and accidents associated with worker fatigue.

Learn more on September 17th at 12 pm EST as John Santagate explores how robots can improve safety in the warehouse.

Contributor:

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