

How to Include the Workforce and Speed Up Robot Deployment

Presented by:

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Agenda

- Why automation is needed now
- Why companies are reluctant to adopt
- How companies can engage the workforce to ease adoption and speed deployment

Automation is needed now more than ever

COMPANIES FACE ECONOMIC PRESSURE AND LOW UNEMPLOYMENT

- Good people are hard to find and harder to retain
- On-demand, high mix economy demands faster throughput
- High turnover, workers-in-training, and increasing pressure to perform lead to greater economic and safety risks
- Material handling is the most frequent cause of workplace injuries
- Forklift accidents alone cost U.S. businesses \$138M annually and result in 100 deaths per year¹

¹Source: Tools of the Trade / Compliance and Safety

Effects of low unemployment rate

NEGATIVE OUTCOMES CAN CAUSE A DOWNWARD SPIRAL

- Increased, expensive overtime hours
- Difficult to find qualified applicants
- Higher turnover and frequent retraining leads to more expense and less safety
- Revenue lost to increased lead times and missed opportunities

US Manufacturing growth weakest in nearly 10 years – tradingeconomics.com

Robots can reduce economic risk

EVIDENCE OF REAL PRODUCTIVITY GAINS WITH ROBOTS

- The existing workforce can get more done
- Increased job security in the face of cyclical demand swings
- More dynamic capacity for employers
- Companies can capture more opportunities when they exist

A recent study on robot adoption within industries in 17 countries from 1993-2007 found that increased robot use contributed approximately 0.36% to annual labor productivity growth, while accounting for 15% of aggregate economy-wide productivity growth.¹ Another estimates that investment in robotics automation between 1993 and 2015 has contributed to just under 10% of cumulative GDP per capita growth in OECD countries.²

1 George Graetz & Guy Michaels 2018 "Robots at Work"
2 Centre for Economics and Business Research 2017 "The Impact of Automation"

Robots can increase safety

MOBILE ROBOTS CAN KEEP WORKERS OUT OF HARM'S WAY

- Reduces number of heavy, dangerous vehicles like forklifts driving through the facility
- Enables designated areas for forklifts, safely separated from people
- Robots never blink – safety sensors continually scan for people and obstacles

Companies are reluctant to adopt

- Deployment of inferior robots has been too expensive and disruptive
- Many mobile robots are challenged by real world conditions
- Expensive experts are needed for setup including mapping, route planning, and fleet management
- Workers resist change

Why do workers resist?

- Workers hate complicated tools they can't use
- Workers push back when change is forced upon them
- Workers resent “experts” who know less about the company, task, or trade
- Workers worry about job security
- Workers in low skilled jobs intuitively recognize that they are most at risk for job loss... and the data backs that up¹

1- BCG estimates that among today's skilled workers and those workers currently being trained, roughly half may not qualify for the jobs that will be in the greatest demand over the next decade- BCG 2018 “Advancing Robotics to Boost US Manufacturing Competitiveness”



Solution: Include the workforce early and often

WAYPOINT PHILOSOPHY: BOBBY FIRST!

- Bobby or Betty is the great worker who's been at the company for 15 years and knows the job better than anyone
- We design mobile robots for Bobby or Betty
- We believe workers like Bobby should be an integral part of any operational improvement process... especially when it involves automation

How to include workers from the start

EXAMPLE – AUTOMATING MATERIAL HANDLING TO ELIMINATE CART PUSHING

1. Explain WHY automation is necessary and what's in it for the workers
2. Include employees in documenting material handling functions to understand the tasks from the workers' perspective
 - You may understand it from an economics perspective, but do you really understand the daily toll on the worker & how they feel about material handling?
 - This will help you recognize which tasks are physically and psychologically harmful to their lives.
3. Get their input on which automation tools would improve their day to day

Unearth your workers' valuable expertise

ASK OPEN-ENDED QUESTIONS LIKE THESE:

- What do you like about your job?
- What tasks do you hate?
- Is there a tool that you would like to have?
- How can we help make your job easier and day to day better?
- Will you help us in evaluating automation technology?

Know your options & let workers be your guide

INCLUDE THE FRONTLINE IN YOUR AUTOMATION RESEARCH & EXPLORATION

- Seek options that do NOT require experts to set up and operate
- Find better tools designed for workers on the job today
- Include workers in vendor demos. Encourage them to ask questions about how the robots work in the real world – *their* world
- Have workers help design the tests based on their experiences and practices
- Have workers conduct testing together with engineers
- Worker / robot interaction should be part of the testing criteria and should be measured and documented

What to look for in a mobile robot

INTUITIVE AMRs ENABLE SPEEDY DEPLOYMENT

- Simple, intuitive set-up
- Easy to control
- Worry-free power
- Intuitive robot behavior
- Network independence
- Maneuverability

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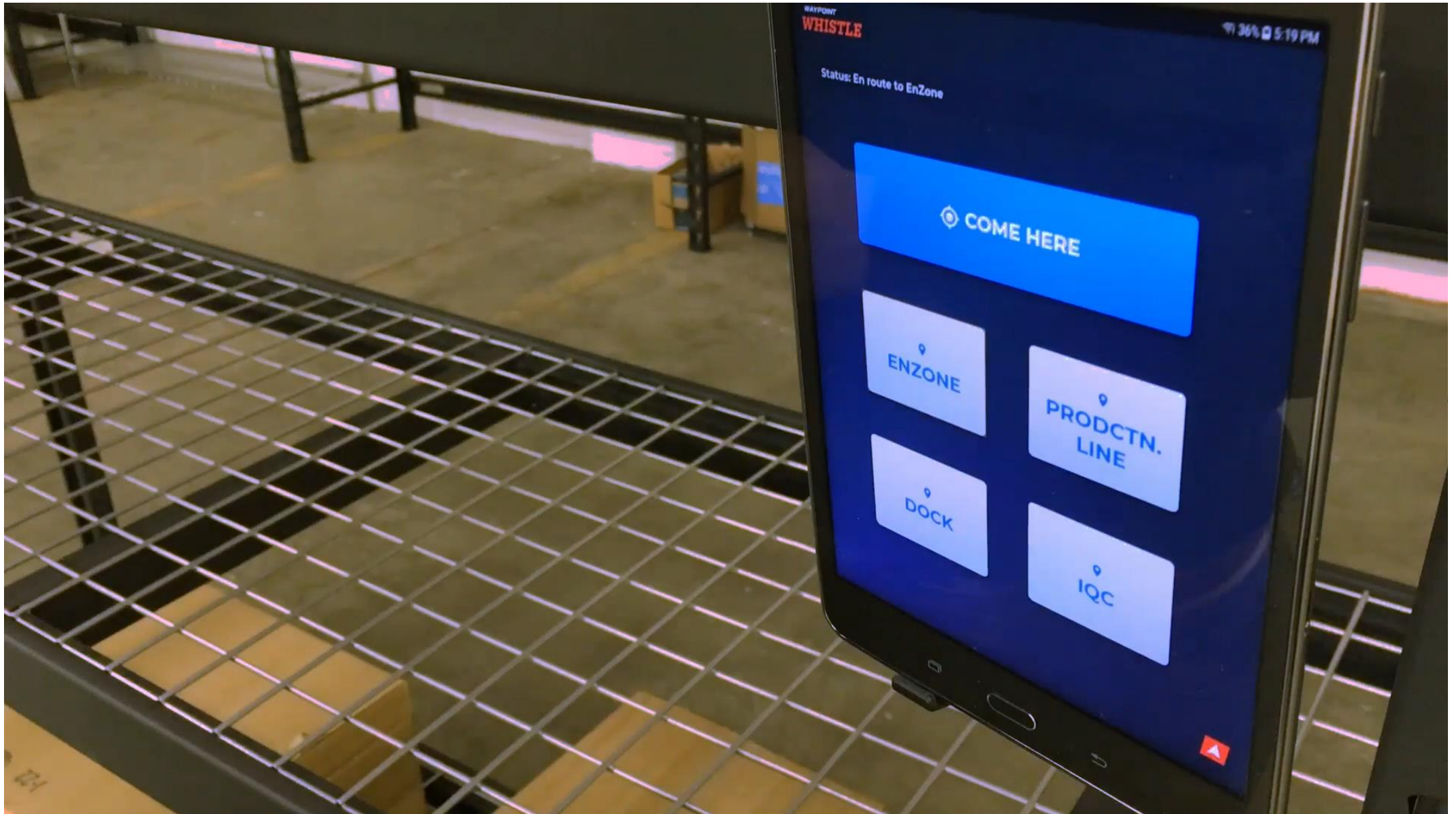
15 minutes to autonomy

WAYPOINT **ROBOTICS**

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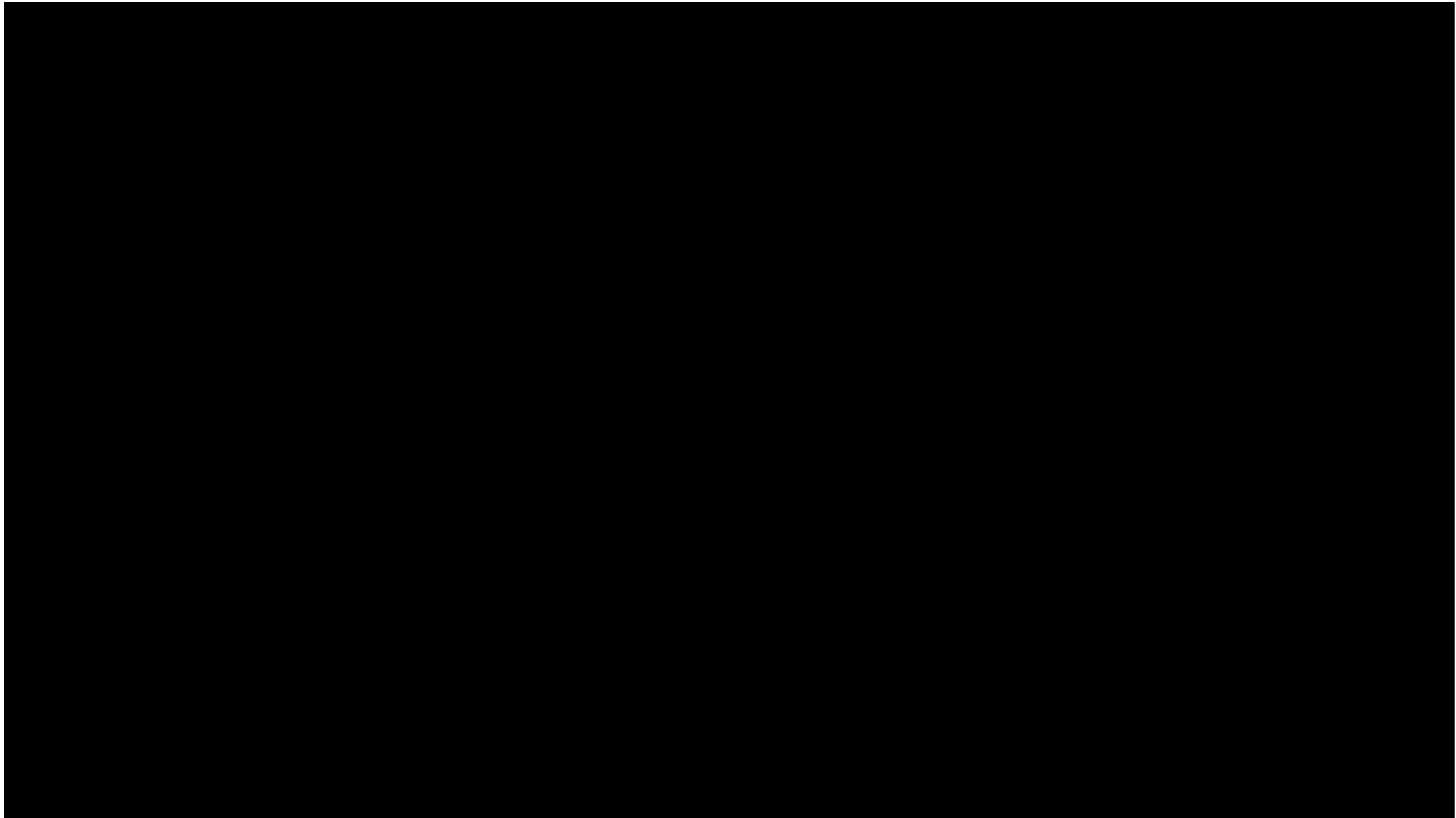
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- **Maneuverability – robot should be able to quickly dock in any orientation to interface with workers, work cells, machines, or conveyors**



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RESULT: Benefits beyond measurable ROI

Workforce:

Workers using great tools are more engaged in work they are proud of. They go home daily with more energy for their families and better quality of life. They have longer, more productive careers.

Companies:

Leaders who give workers great tools more easily attract and retain talent. They demonstrate a willingness to listen to & invest in their teammates. They get the benefits of automation and the loyalty of an empowered workforce.

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Or visit our **MODEX Booth 9600**