



PROMAT 2019

McCormick Place | Chicago
April 8-11, 2019
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The Roles and Responsibilities of an Executive for Implementing a Robotics and Automation Strategy

CRO
CHIEF ROBOTICS OFFICER
SUMMIT

Presenter



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Global Robotics Applied Innovation Leader
Procter & Gamble

P&G at a Glance

- \$65B in sales
- 21 brands with annual sales > \$1B
- 11 brands with annual sales \$500M - \$1B
- Consumers in more than 180 countries



Key Role

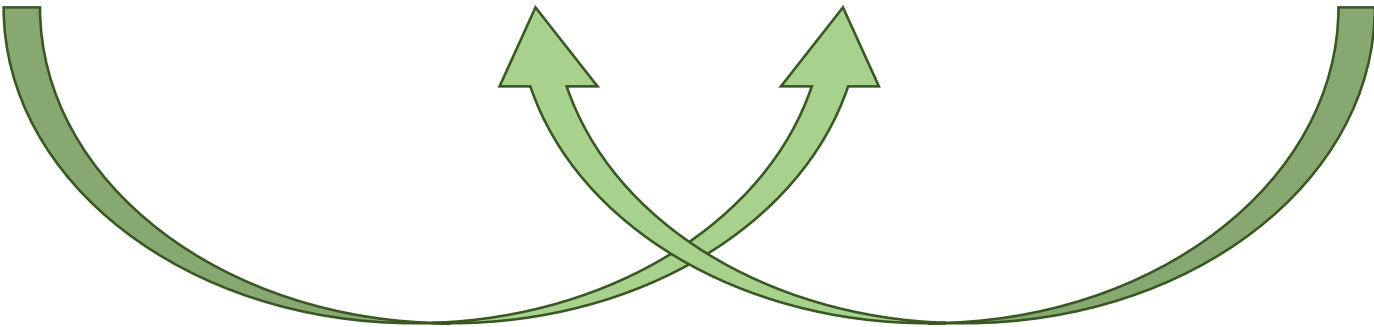
Visionary Leadership The “Magical Combination”

What’s
Needed

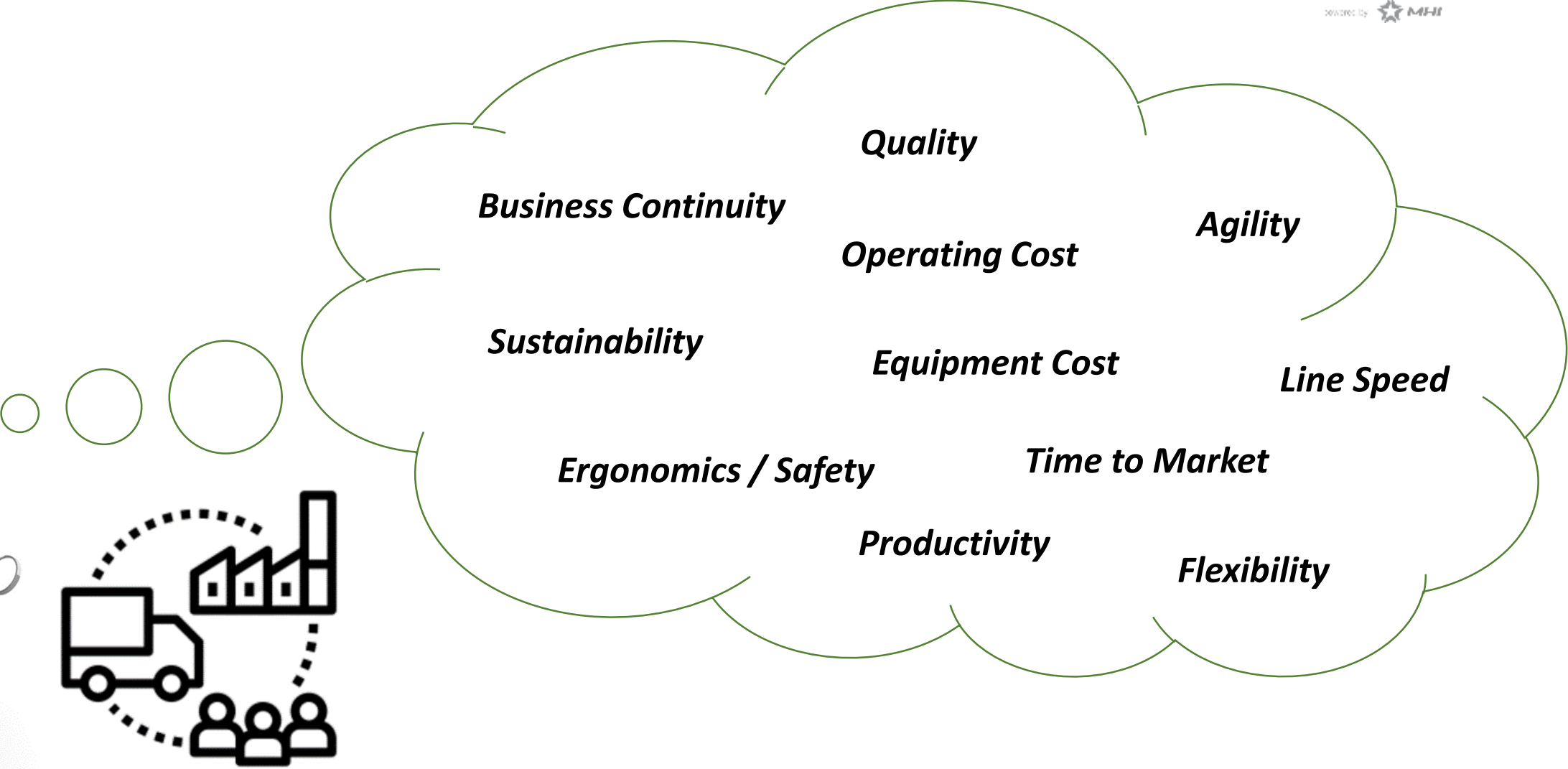
What’s
Possible

Business Acumen

Technical Savvy



Business Needs throughout the Supply Chain



Develop the Strategy



The devil is in the details!

Common Business Need – Flexibility & Agility

- Product Differentiation

- Size and shape
- Color and texture
- Decorations
- Number of SKUs

- Processes

- New builds
- Assembly order
- Sortation

- Lower order quantities

- Fulfillment
- Personalization
- Customized runs
- Changeover complexity

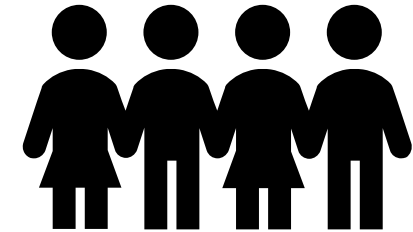
- Line reconfiguration

- Asset life
- Time to market



Common Business Need - Productivity

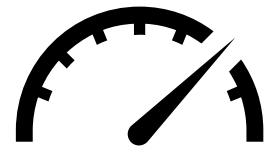
- Labor availability
 - Employment market
 - Bad weather
- Wage inflation
 - Employment market
 - Business expansion in the local area
- Co-employment
 - HR risk
 - Local regulations
- Skills
 - Increased demand
 - Fork truck driver, assembly line worker, etc



It's not just headcount !

Common Business Need - Speed

- Line Rate
 - Business expansion
 - Demand response
- Fulfillment
 - Time to customer
 - Out of stock
 - Seasonal changes
- Time to Market
 - New product introduction
 - Competitive response
 - Seasonal changes
- Produce to Demand
 - Inventory
 - Line changeover
 - Operational efficiency



Other Business Needs

- Safety

- Ergonomics
- Guarding
- Exposure



- Cost and Cash

- Operating costs
- Capital availability
- Line efficiency



- Quality

- Contamination
- Damage
- Mis-pack, mis-label, mis-count



- Sustainability

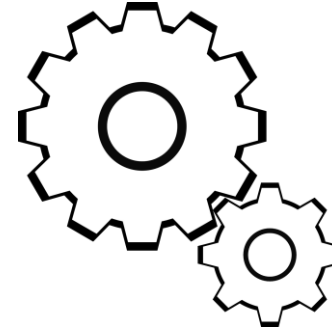
- New materials
- Reduced energy
- Carbon emissions



Robots versus Hard Automation



- ✓ Flexible
- ✓ Agile
- ✓ Adaptable
- ✓ Can be Repurposed



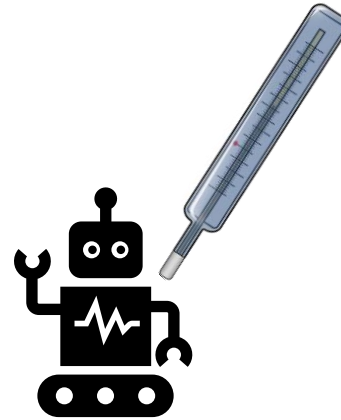
- ✓ Faster
- ✓ Cheaper
- ✓ Purpose Built
- ✓ Expensive Modification

Robotic systems are typically neither fast nor cheap!

Watch Outs

Robot Fever

- Very common trap!
- Robots are really cool
- The task may not need a robot



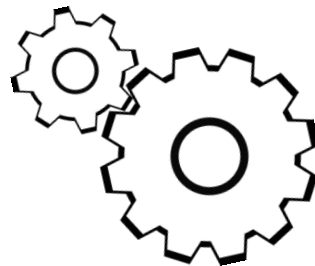
Narrow Focus

- Fixating on a task “as is”
- Not seeing past the immediate task
- Lights out operation
- Humans are really good at some things!



Designing for Automation

- Materials
- Material Transport
- Work Processes



Build the Team

- Operators
- Engineers and technicians
- Equipment vendor
- R&D
- Product / package development
- Safety
- Finance



Engage all stakeholders!

Leading the Effort

- Communications
 - Share compelling vision and strategy
 - Dispel myths
 - Open feedback both ways
 - Regular updates to all levels of the organization
- Prioritize
 - Resource constraints
 - Business continuity
 - Sometimes the highest return is not the highest priority!
- Enable Project Execution
 - Money
 - Resources
 - Skill development
- Breaking down barriers
 - Paradigms – “change is bad”
 - Finance
 - Leadership buy-in



Stay out of the way!

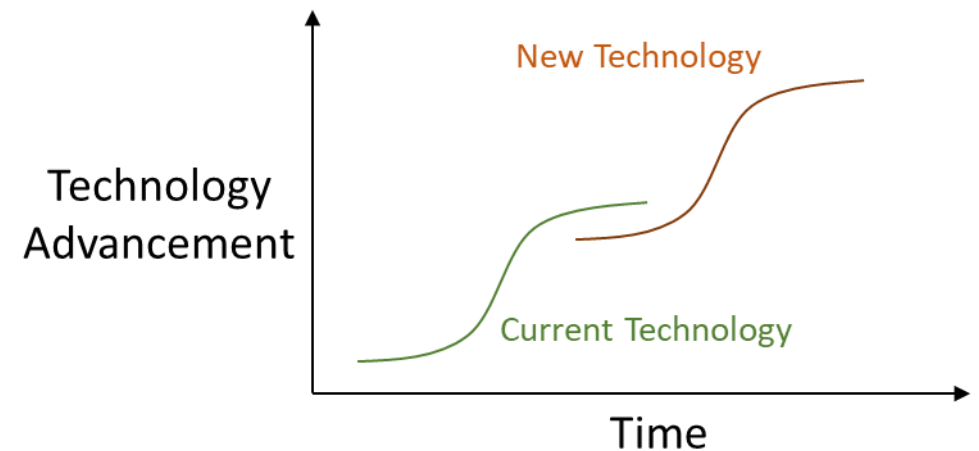
Track Progress and Celebrate Results

- Define key metrics based on business needs
 - Actively track results
 - Broadly communicate and share
 - Address gaps proactively
- Beyond the numbers
 - Anecdotal accounts of positive outcomes
 - Elimination of dull, dirty, dangerous tasks
 - Morale / confidence in the business
 - Sustainability
- Rewards and Recognition
 - Formal awards
 - Recognition boards
 - Celebrate – free food!



Repeat

- Everything can't practically be done at once!
 - Capital limitations
 - Engineering / technical resources
 - Business disruption
- First pass will get "*Low Hanging Fruit*"
 - Score early wins
- Rapidly developing technology
 - Cost dropping
 - Capability increasing
 - Succession of "*S-Curves*"



For more information

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