

# Why Automate?

## Manufacturing Considerations in Today's "New Normal"

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# Prior Automation Webinar Series

## AUTOMATION 101

### The Starting Point for Automation

- 1 What is driving decision to automate?
- 2 Define & document your current process
- 3 Identify your requirements
- 4 Identify needed automation components
- 5 Who will do the work?

## AUTOMATION 201

### Clarifying Your Requirements

- 1 Speed
- 2 Precision
- 3 Payload



Download Whitepaper @ [www.epson.com/automation101](http://www.epson.com/automation101)

**EPSON**  
EXCEED YOUR VISION

# Today's Webinar

## WHY AUTOMATE?

### Manufacturing Considerations in Today's "New Normal"

- 1 Accelerating of today's manufacturing paradigm
- 2 The evolution of "WHY" and "HOW" to automate
- 3 Top considerations for project success
- 4 Takeaways for your business

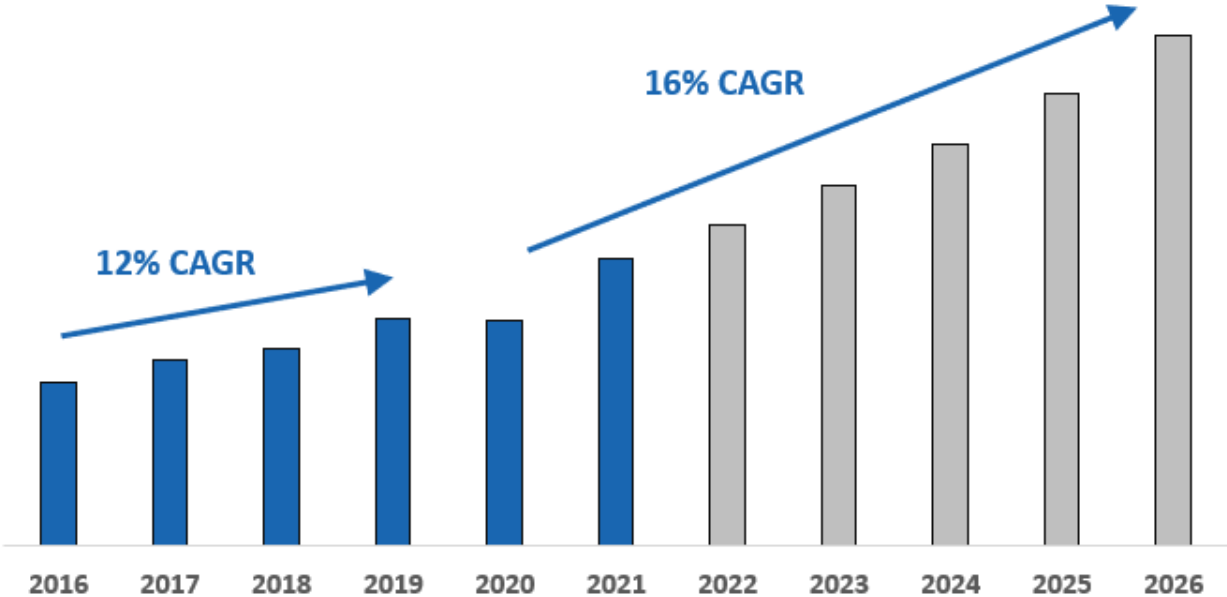


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# Today's Accelerating Manufacturing Paradigm

# A Return to Automation Growth

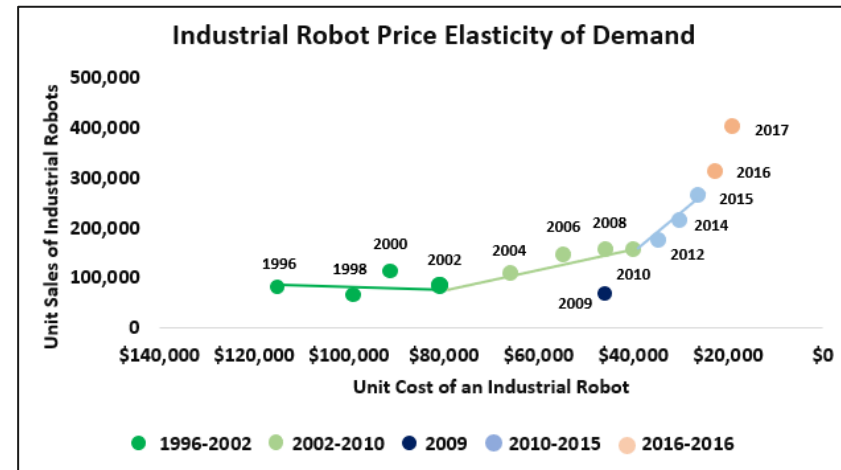
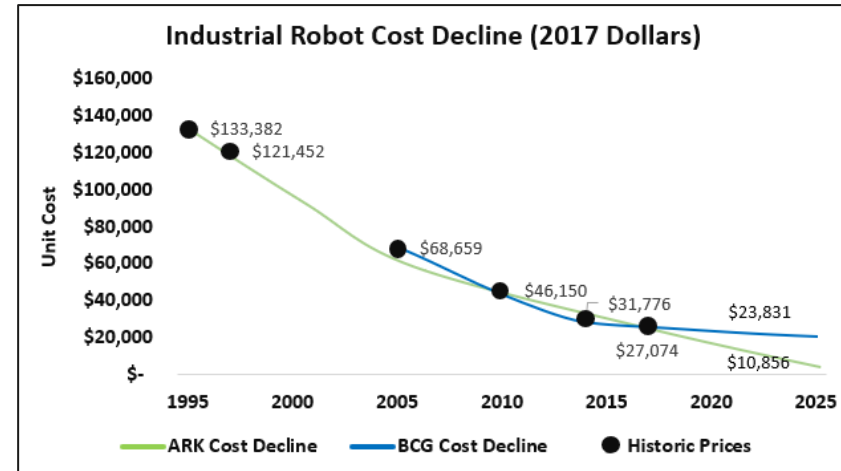
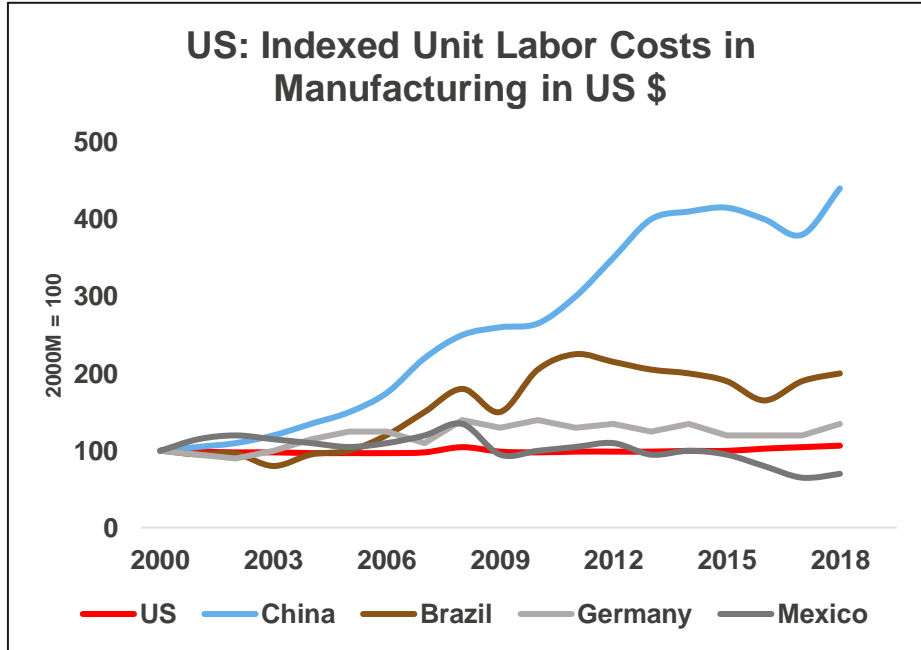
## North America Industrial Robotic Sales SCARA & Small 6-Axis (sub 20 Kg)



Source: Fuji Keizai 2022



# Driven by Increased Labor Costs + Decreased Automation Costs



Sources:  
 Reshorennow.org / Oxford Economics / Haver Analytics  
 ARK Investment Management / UN Economic Commission for Europe



# A New Generation of Automation Companies & Professionals



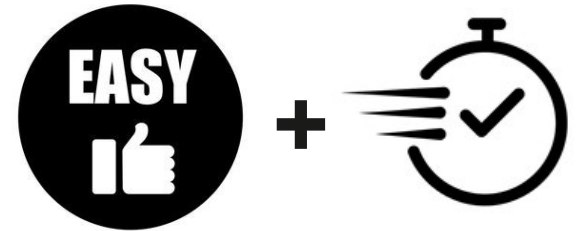
# New Users Are Leading a Drive Toward “Simplicity”



Limited  
Automation  
Background



Simple  
Applications



Ease-of-Use  
+  
Speed



# New Companies Are Automating



**Ease-of-Use**

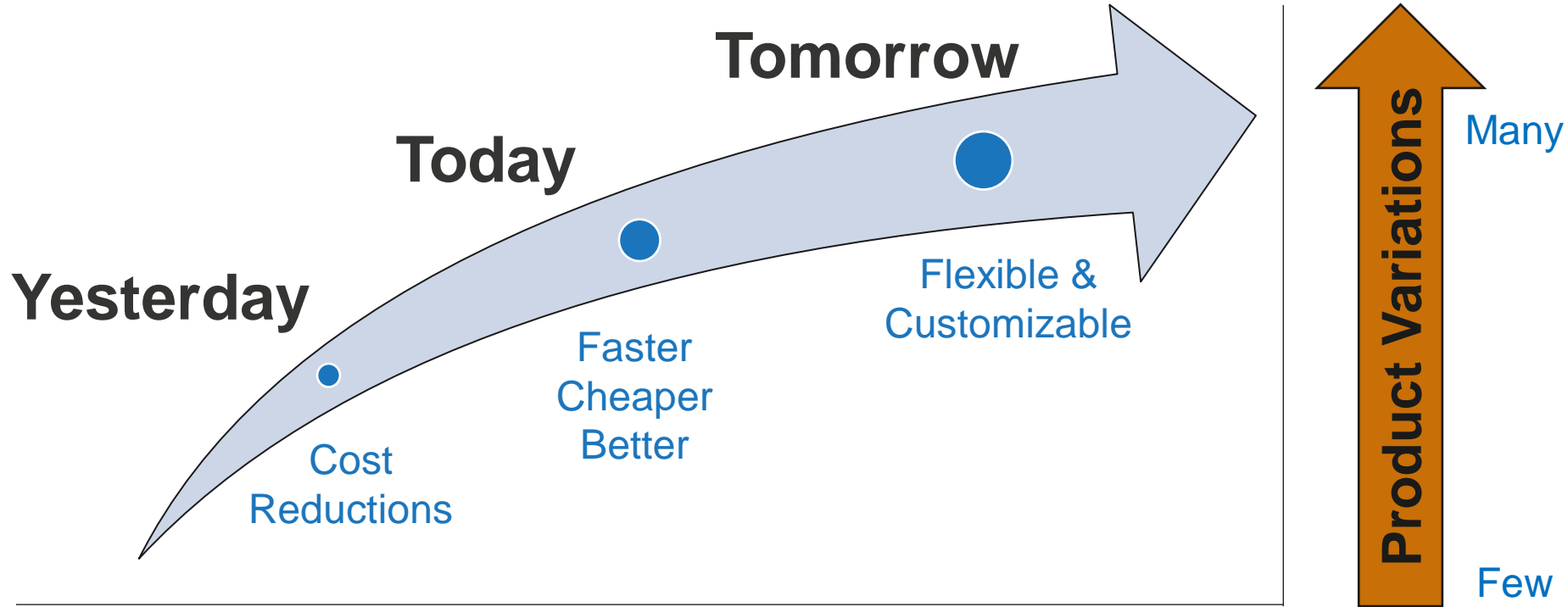


**Affordability**



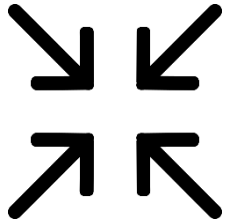
**Small & Medium  
Companies Now  
Participating**

# Product Variations Are Driving a Need for “Flexibility”



## Manufacturing Requirements

# Competitiveness Is Being Put To The Test



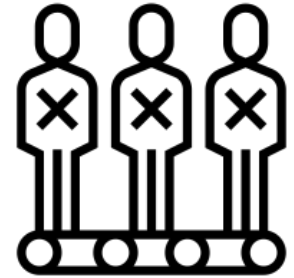
**Smaller Tasks  
Higher Precision  
Higher Speed**



**Build More  
For Less**

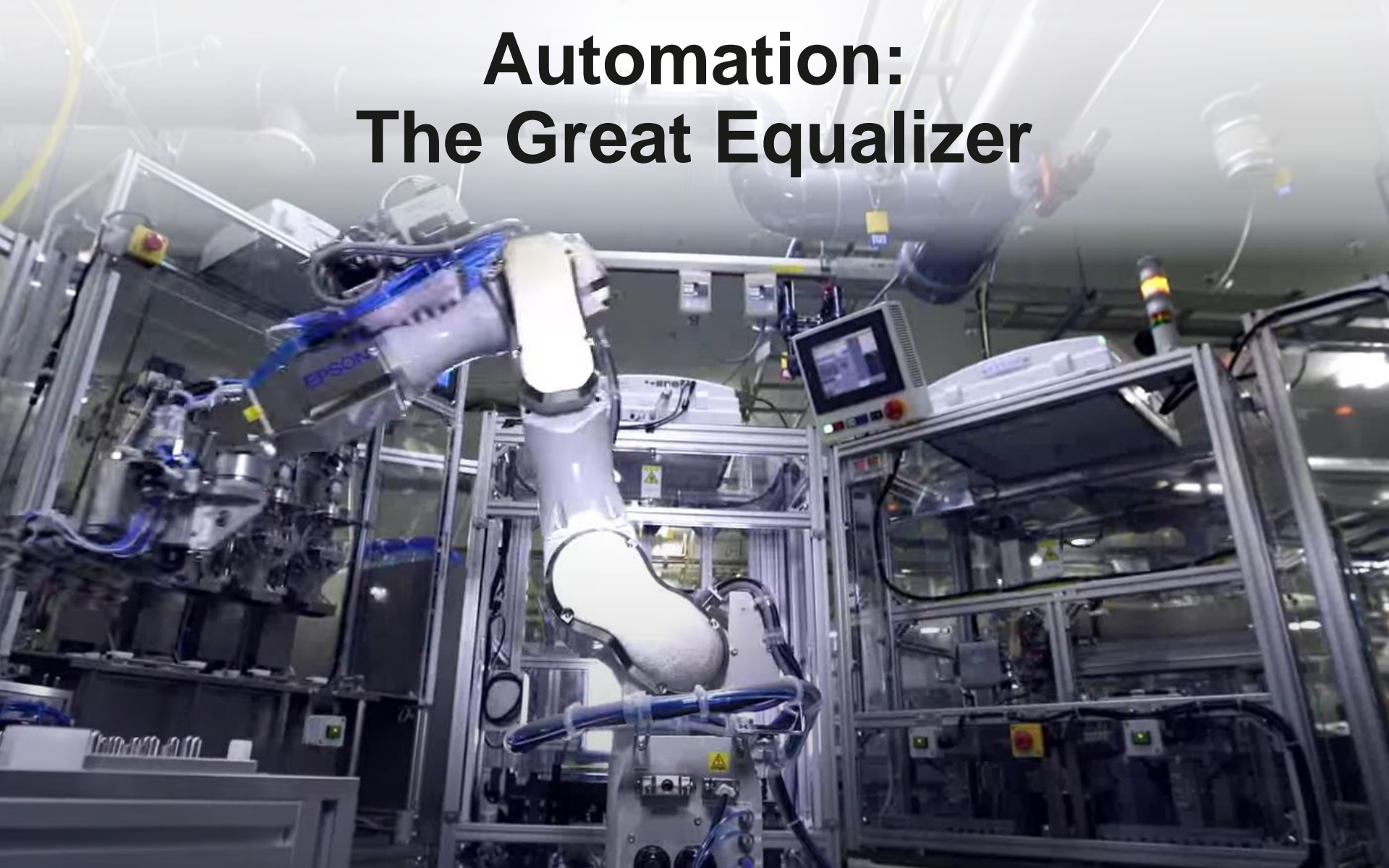


**Razor Thin  
Margins**



**Global  
Labor  
Challenges**

# Automation: The Great Equalizer



# 2

## The Evolution of “WHY” and “HOW” to Automate

# The WHY of Automation

## YESTERDAY - Core Reasons For Automation



Cost



Volume



Technology



Quality

## TODAY - Additional Reasons for Automation



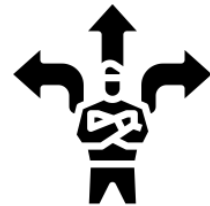
Availability



Supply Chain

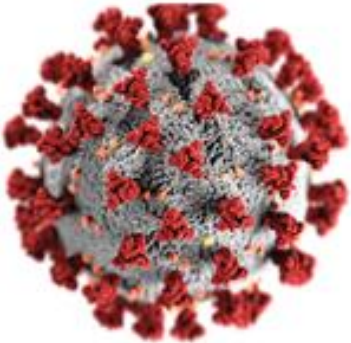


Time-to-Market

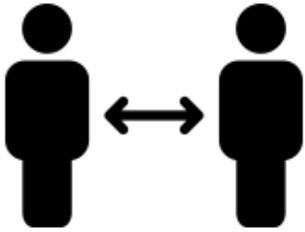


Flexibility

# COVID: Exasperating Prior Trends



COVID-19



Space Considerations



Supply Chain Constraints



Re-shoring / Near-shoring



# The HOW of Automation

## Experienced User



- Reduce cost further?
- Improve throughput?
- New technologies
- Reduced product size?

**“How do I get to the next level?”**

## New User



- Can / should I automate?
- What will this cost?
- How do I build this?
- Where do I get training?

**“Where do I begin?”**



# The HOW of Automation

More companies today are re-thinking HOW to automate

Unfortunately, it's more than just re-shoring a process back to the USA



**Who Will  
Do The Work?**



**What To  
Automate?**



**Quality  
Considerations?**



**Safety  
Considerations?**

# Offshore Trends & Impacts

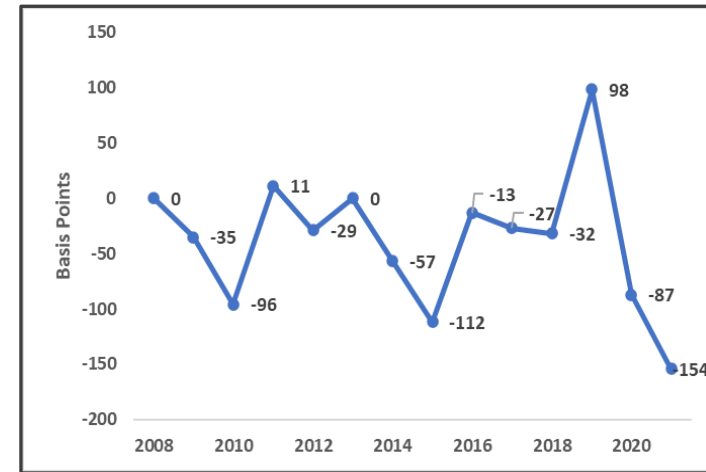
## U.S. Manufacturing Trends

— GDP    — All employees  
 (manufacturing industry)



## U.S. Manufacturing Import Ratio

●— Year-over-year change  
 (basis points)



- US manufacturing more than ever, yet US labor gap forecast to exceed 2M jobs by 2030
- Today companies are going nearly *anywhere* to find product
- New risks emerging which raise concerns with a single country dependence (China)
- Companies evaluating a “China+” strategy, also remain bullish on re-shoring and near-shoring to MX & CAN



# Off or Onshoring is no longer a “binary” choice

## YESTERDAY

### Drivers



Ability to find workers



Labor costs



Material sourcing & costs

## TODAY

### Considerations



Overseas labor costs



National security



Supply chain disruptions



Patent security



Delivery delays



Time-to-market




Tariffs



Flexibility



A photograph of a modern industrial manufacturing environment. In the center, a robotic workstation is visible, featuring a prominent EPSON robot arm. The workstation is enclosed in a clear safety enclosure with metal handles. The background shows a well-lit factory floor with various tools and equipment. The overall scene conveys a sense of advanced automation in manufacturing.

**Yesterday, there were  
more manufacturing options**

**Today it's a risk to NOT automate**

# 3

## Top Considerations for Automation Success

# What is Driving You to Automate?



A top reason for not automating is an **inability** to gain internal support and funding

- Align on your priorities
- Do the legwork up-front to justify your project
- Decisions downstream will depend on this

**Build consensus on a focused project objective**

# Take a 360° View of Risk

If it isn't broken, don't fix it. **True?**

If so, you might be **falling behind**  
your competitors

- Evaluate short and long-term risks & benefits
- What is the cost of change in 3 yrs? 5 yrs?
- What are you risking by not automating?



**Be positioned for future growth & to stay ahead of the game**

# Automate the “Right Way”



Going “**thin**” on manufacturing resources can **slow down** your operation

- Automation is a big investment
- Don’t skimp on things that matter
- Make sure you are “future proof”

**Don’t be short-sighted on how you automate**



# Be Cognizant of Product Changes

Today's products **will likely not**  
be the products you build in  
**5 years**

- Do you know what those products will be?
- Most do not.



**Keep automation adaptable to accommodate future demand**

# Don't Make Things Too Complicated



It's **easy to lose track** of your initial reason for automating

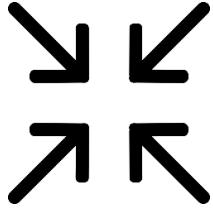
- Keep your development simple
- Easy to add more technology & features
- Be clear on tradeoffs and limits
- Listen to experienced automation professionals

**Stay focused on your defined project goals**

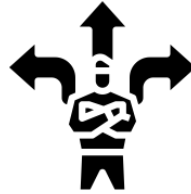
# 4

## Takeaways For Your Business

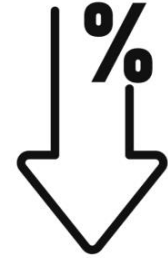
# Stay Competitive: Automation is the Great Equalizer



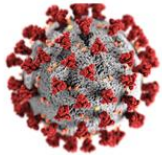
**Smaller Parts  
Higher Precision  
Greater Production**



**High Mix /  
Low Volume**



**Razor Thin  
Margins**



**New Normal Impacts**

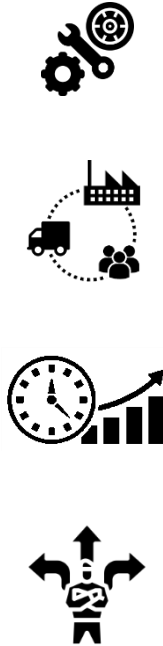
- **Social Distancing**
- **Supply Chain**
- **Re-Shoring**
- **Labor Challenges**

# Evaluate Today's WHY and HOW

## WHY AUTOMATE?

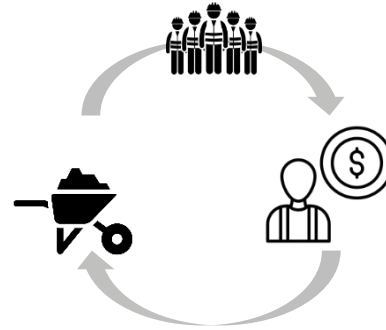


Yesterday

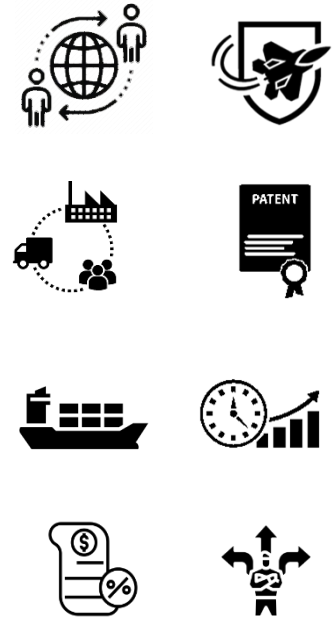


Today

## HOW TO AUTOMATE?



Yesterday



Today



# Considerations For Your Next Project

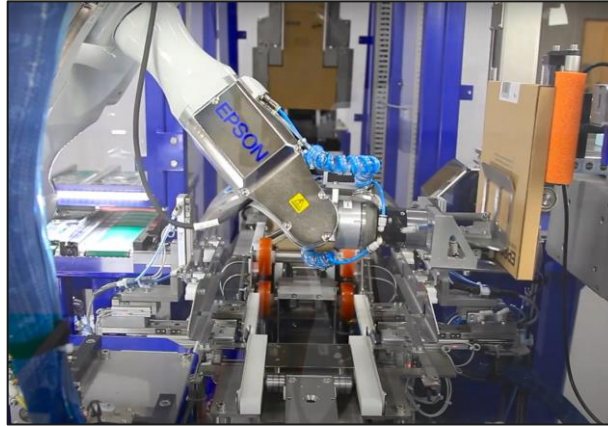
- 1 Align on your reasons for automating
- 2 Take a 360° view of “risk”
- 3 Make sure to invest in the right places
- 4 Be cognizant of future changes in your product
- 5 Start simple to improve your potential for success



# Simple Ink Packaging Example



**Product  
Placement**



**Label  
Application**



**Final  
Packaging**



**Simple Applications Are Everywhere!**



# Thank you!

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