

## Disrupt the status quo

Industry intelligence: *Report on Disruptive Technology's Impact on Manufacturing*





# More than half of manufacturers have already adopted 5 or more disruptive technologies

Among Manufacturing companies, the technologies most likely to have been adopted, as they are in most industries, are the Cloud and Mobile Devices, Apps and Commerce.

## How the hand of technology is writing Manufacturing's future

Manufacturing is a leader in adopting Robotics and 3-D Printing. Robotics is also seen as the technology most critical to Manufacturing's future success, followed by the Internet of Things (IoT) and the Cloud.

These organizations are concerned that failing to invest in disruptive technologies puts them at a significant competitive disadvantage. Most would feel threatened by both current competitors and emerging competitors from outside their industry.

**+173%**

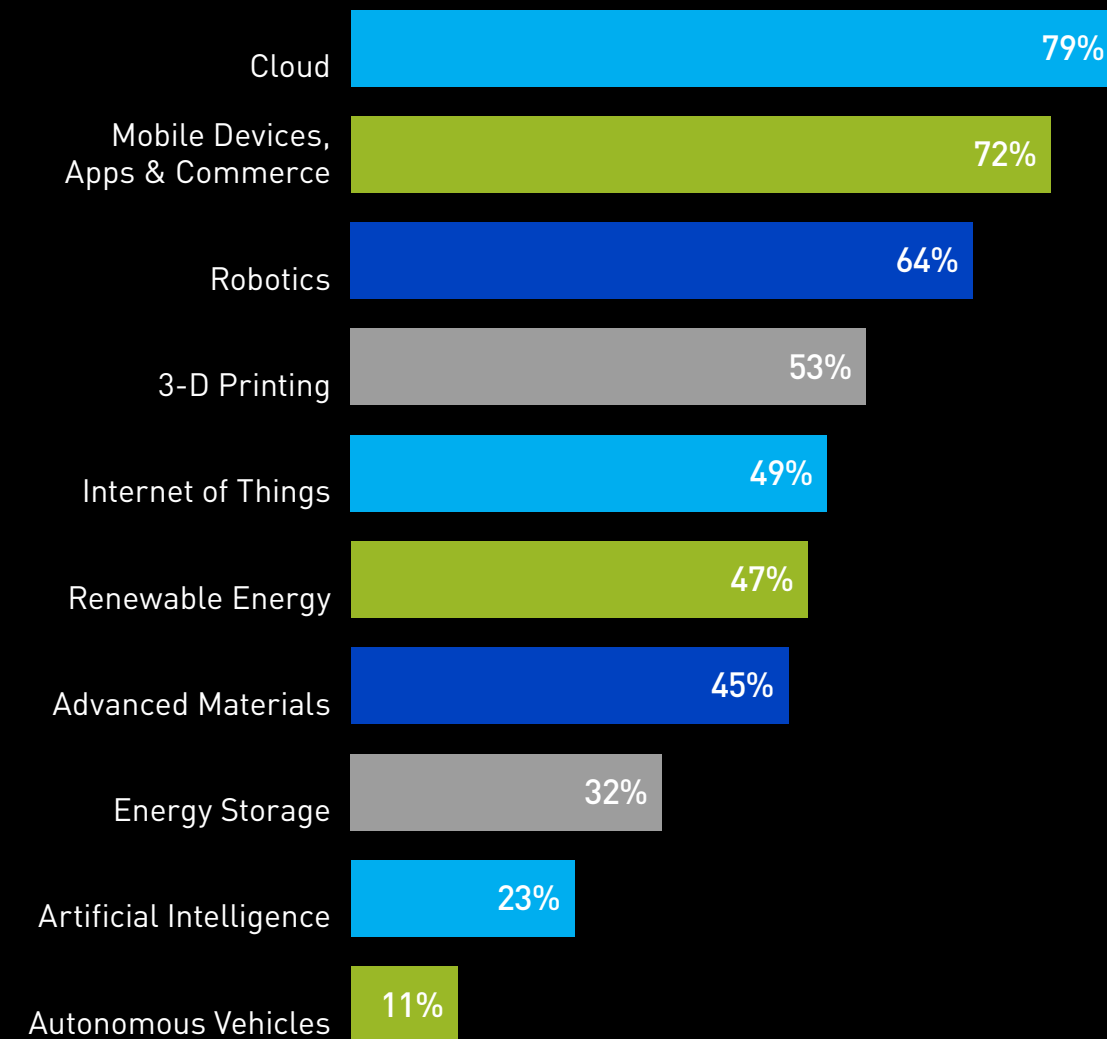
higher adoption of Robotics than industry average

**+166%**

higher adoption of 3-D Printing than industry average



## Disruptive technologies currently adopted



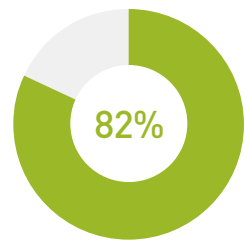
## Three priorities emerge as major growth drivers

Manufacturers see growth coming through a number of places, and corporate tax cuts are pretty far down the list. Top priorities for manufacturers are driving efficiency in the supply chain through better integration with partners, increased automation and adoption of Robotics, more personalization to meet consumer needs and better employee training and skills.

### Turning Manufacturing's rebound into long-term success

5 in 6

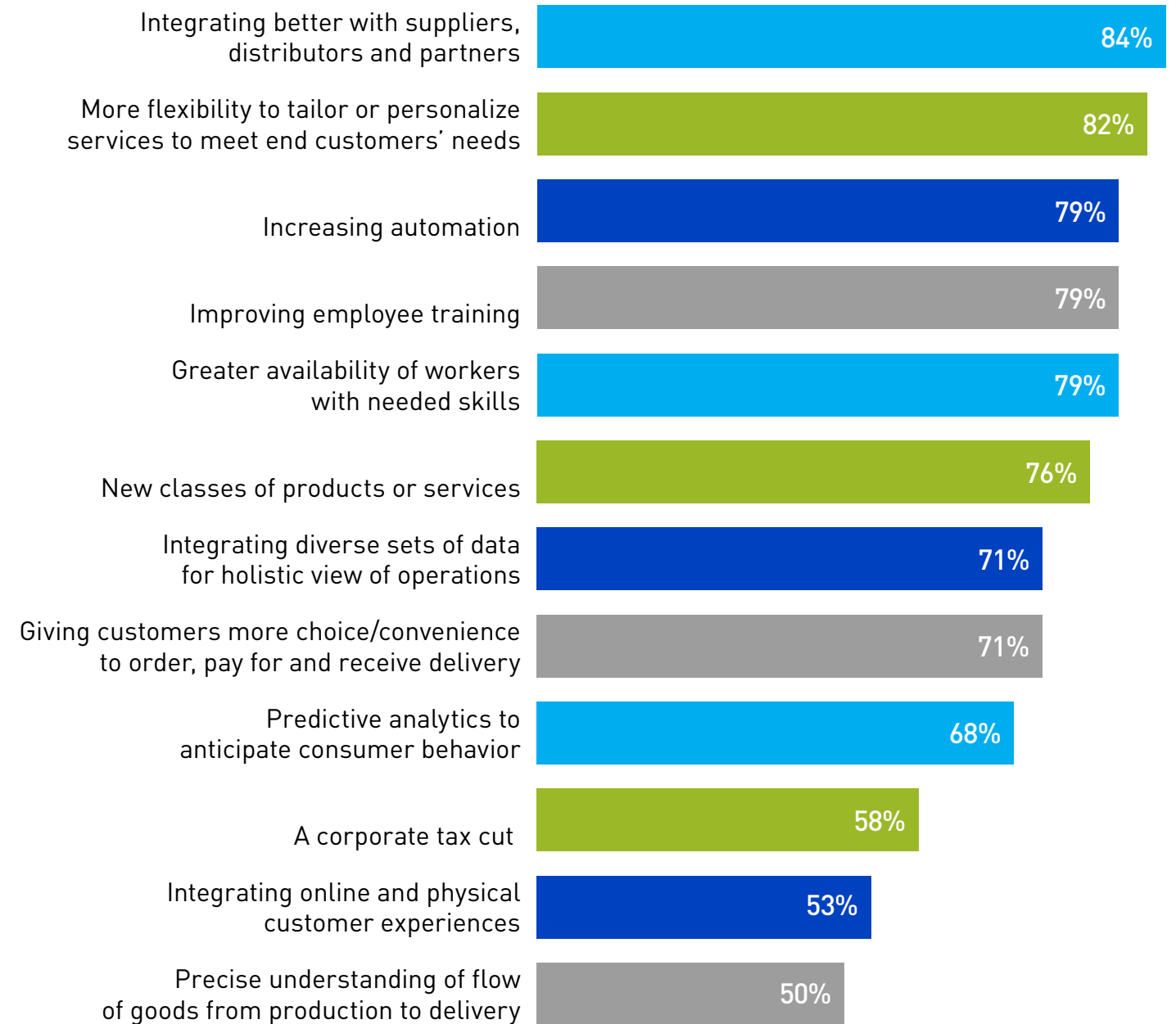
see better supply-chain integration driving multi-year growth



point to personalization as a key growth lever



### Priorities that can drive multi-year growth



## Key barriers to adoption: Skill gaps and short-term thinking among decision makers

Having a skilled workforce presents growth opportunities for Manufacturing. The lack of one is a major impediment to growth. And it keeps manufacturers from adopting the disruptive technologies that allow companies to stay competitive. Many see lack of skilled employees and lack of expertise for effective implementation as major challenges. The other major challenge: short-term thinking among decision makers.

### Keys to fulfilling AI's potential

Many are enthusiastic about Artificial Intelligence's potential for personalization, optimizing content by segmentation and even in computer-generated imagery and character development. But many also acknowledge that there are still significant challenges to successful adoption, starting with identifying the right strategic partner for implementation.

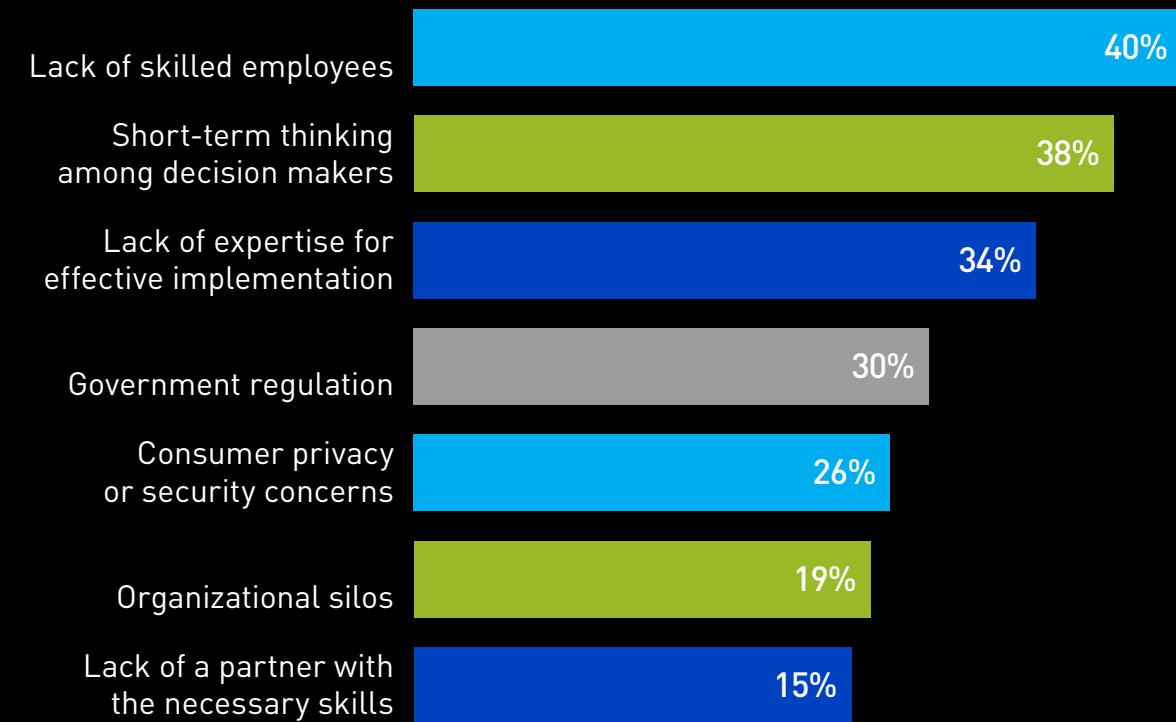
**2 in 5** cite lack of skilled employees



blame short-term thinking among decision makers



### Major challenges to adoption of disruptive technologies



*"It's all about ROI.  
Short-term vs. long-term thinking."  
– Manufacturing executive*

# Automation and Robotics are poised to provide significant benefits to Manufacturing

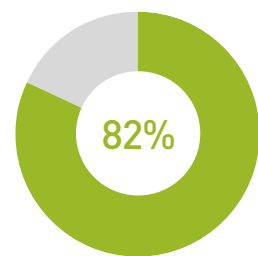


Automation, Robotics and Autonomous Vehicles are related technologies where machines learn to behave, for very specific applications, more productively than humans. Manufacturers see great promise in these technologies.

## Seamless technology integration

Manufacturers believe they can derive the most benefit from technological innovation through automation software that simplifies processes and integration of Robotics into operations. Many top supply-chain challenges can be partially addressed through automation: errors from manual data entry, lack of streamlined communications among owners of various parts of the order's life cycle plus out-of-sync information systems.

And while Autonomous Vehicles have been slow to take off in Manufacturing, many organizations do see value in the days ahead.



see increased automation and use of Robotics as most beneficial

1 in 3

believe Autonomous Vehicles will play an important or indispensable role in their business

## Supply-chain challenges

- 74% Goods delivered late/to wrong place
- 71% Manual data entry prone to human error and backlog
- 63% Lack of streamlined communication in order life cycle
- 55% Management information systems not in sync
- 45% Unreliable or overstressed infrastructure
- 45% Multiple channel support for ordering, payments, etc.
- 45% Difficulty tracking goods or materials
- 39% Inability to see where an order is in its life cycle

*"With automation, we will be able to fulfill customer requirements in time and make longer-lasting relationships with customers."*  
– Manufacturing executive

# Artificial Intelligence and personalization projected to play big roles in growth



Adoption of AI in Manufacturing is expected to reach 43% in the near future, rising from 23% today. Half of manufacturers believe AI will play an important or indispensable role by 2025.

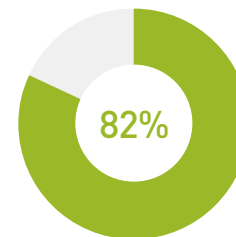
## Personalization will have many facets

One important application of AI is personalization, which manufacturers believe is important to their future success. Most manufacturers see personalization as less about creating unique products at mass scale than making it simpler for customers to engage with the company, customizing offerings for every customer and using data analytics to predict and impact purchase behavior.



## What personalization means to manufacturers

- 29% Making it simpler for customers to engage with the company
- 21% Being able to customize services and offerings for every customer
- 18% Using customer data analytics to predict and impact purchase behavior
- 16% Having the technology to create unique products in mass scale
- 11% Having versatile supply-chain tools to create a variety of products



growth in AI adoption in the near future

4 in 5

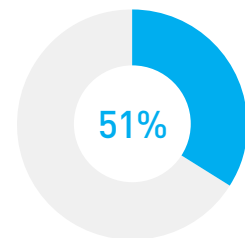
expect to be able to fully personalize customer engagement in 5 years

## Manufacturers prioritize personalization over privacy

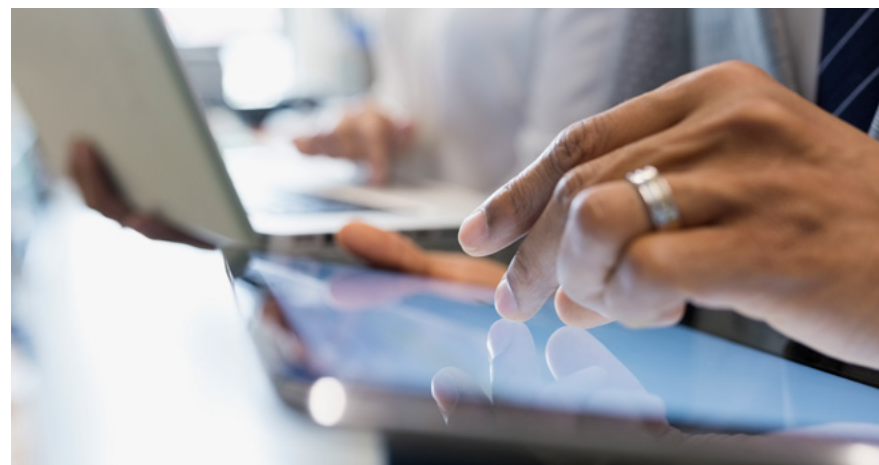
While most industries prioritize protecting consumer privacy over using consumer data to develop better products, manufacturers have a different approach. More than 50% believe that using consumer data to develop better products is the future of the business, even if it raises some privacy concerns, vs. 39% among all industries.

### Data must be safeguarded

This stance could certainly lead to innovation by Manufacturing, but at the same time could expose them to reputation risk if they fail to take great care in the way they use consumer data.



believe personalization is more important than privacy



## Disrupting the status quo in Manufacturing, right now

As you read this, decision makers in Manufacturing are revolutionizing every aspect of their industry with disruptive technologies.

They're disrupting human error with automation.

They're disrupting a one-size-fits-all approach to customers with personalized engagement.

They're disrupting lack of insight into the life cycle of an order with the Internet of Things.

They're disrupting management by hunches with management by data through Artificial Intelligence.

The leaders surveyed in this report recognize that disrupting barriers creates opportunities. That the biggest risk will impact those who wait. And that change waits for no one, especially in Manufacturing, where things are about to get interesting.

### Want to learn more or speak to an expert about disruptive technologies and your industry?

Contact us: [na.panasonic.com/ca/DSQcontact](https://na.panasonic.com/ca/DSQcontact)

Learn more: [na.panasonic.com/ca](https://na.panasonic.com/ca)

### Creating the technologies that move us

At Panasonic, we anticipate the future, innovate continuously and integrate disruptive technologies into breakthrough solutions for our customers. Our goal? Create technologies that move us toward a better life and a better world.

**Panasonic**