# State of Al in Manufacturing Survey Results

Manufacturers are optimistic about AI and see Cloud ERP as critical infrastructure to launch decisioning capabilities





#### **About**

This survey was commissioned by Rootstock Software and conducted by Researchscape. The survey assessed how manufacturers currently view and use AI in their everyday operations, their plans for future adoption and how these tools are impacting their roles.

#### **Demographics**

350 manufacturers across the U.S., U.K. and Canada in organizations with 100+ employees were surveyed.



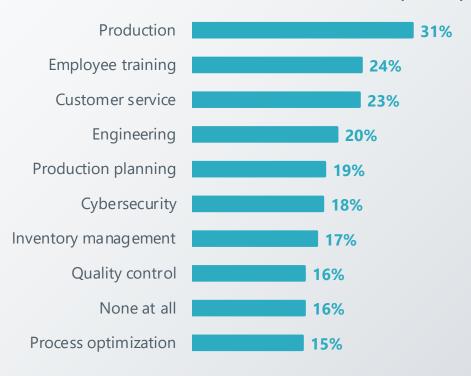
## The Current Use of Alin Manufacturing

The vast majority of manufacturers surveyed are using all types of Al and are already enjoying measurable benefits. Not surprisingly, they see efficiencies and increased productivity for operations.

## Manufacturers are Welcoming Al with Open Arms

Over **70%** of respondents say they have implemented some form of Al into their operations already with the top 3 applications being production, employee training, and customer service.

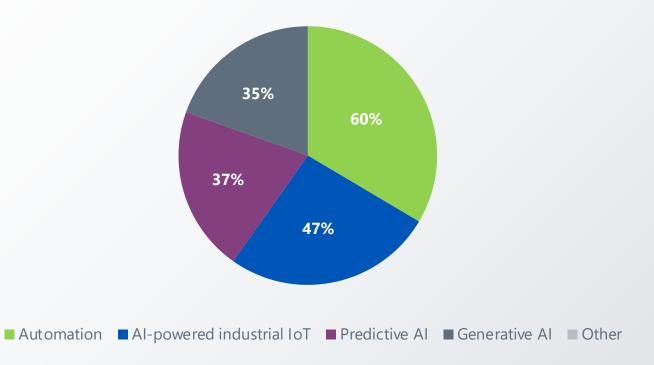
#### FOR WHICH APPLICATIONS, IF ANY, DOES YOUR ORGANIZATION CURRENTLY USE AI?



## Types of Al Manufacturers are Using

Automation is the most used type of AI at this stage (60%), though they are exploring other types including Predictive AI (37%) and Generative AI (35%).

#### WHAT TYPE OF AI ARE YOU DEPLOYING IN YOUR ORGANIZATION? (SELECT ALL THAT APPLY)

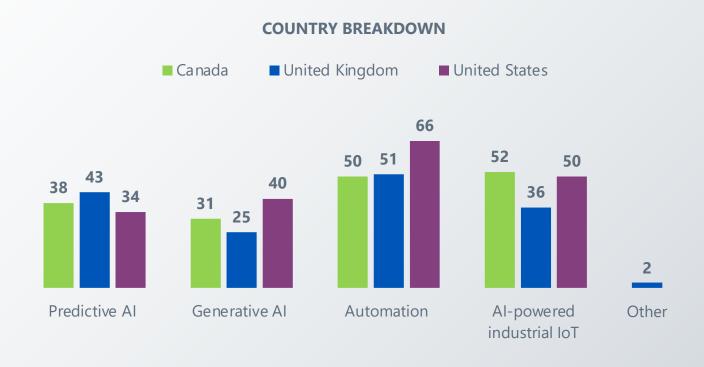


#### **DEFINING THE TOOLS**

- Automation Al-powered software that automates manual processes and administrative work
- Al-powered industrial IoT systems that monitor manufacturing activity and reduce manual intervention
- Predictive AI technology that uses statistics, analytics and algorithms to predict upcoming events or outcomes
- Generative AI technology that can produce various types of content, including text, imagery, audio and synthetic data

#### **Geographic Differences**

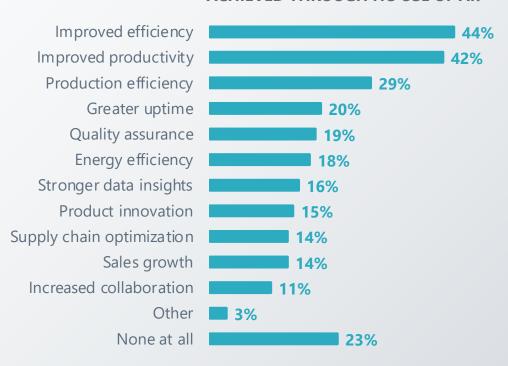
U.S. manufacturers have embraced AI-powered automation (66%) and Generative AI (40%) at a significantly higher rate than those in the U.K. or Canada.



## The Value Manufacturers are Seeing with Al

Across these tools, the majority of manufacturers are seeing the benefits of AI in their organizations. The top 3 areas of benefit include improved efficiency (44%), improved productivity (42%) and production efficiency (29%).

#### WHAT BENEFITS, IF ANY, HAS YOUR ORGANIZATION ACHIEVED THROUGH ITS USE OF AI?



#### The Barriers to Adoption

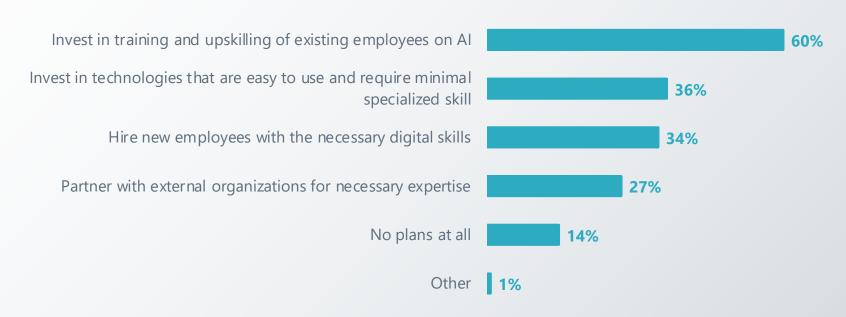
Despite the potential benefits manufacturers are achieving with AI, the biggest barriers to adoption include lack of internal knowledge (49%), difficulty integrating (43%), and high implementation costs (37%).



## AI & The Skills Gap in Manufacturing

To address the lack of internal AI knowledge, manufacturers are taking two key steps to close the skills gap: **60%** plan to invest in the training and upskilling, and **36%** plan to invest in technologies that are easy to use and require minimal specialized skill.

#### HOW DOES YOUR ORGANIZATION PLAN TO ADDRESS POTENTIAL SKILL GAPS WITHIN YOUR ORGANIZATION DUE TO AI ADOPTION?



## AI & ERP

ERP is core to the successful adoption of AI-powered tools for manufacturers as ERP collects contextualized raw data making it easier for AI to deliver tangible insights.

#### Al Needs ERP

**ERP is core to the successful adoption of AI-powered tools for manufacturers as the industry shifts.** ERP is listed as the top technology to impact an organization's ability to adopt and integrate more AI-powered tools over the next three years (as chosen by **47%** of respondents).

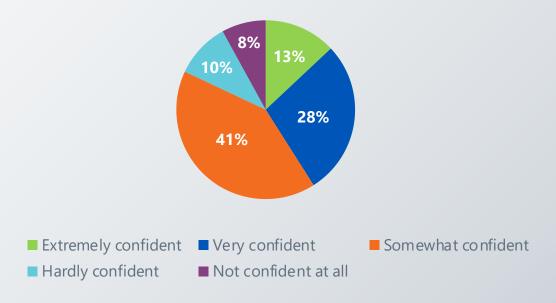
WHAT TECHNOLOGIES DO YOU THINK WILL HAVE THE GREATEST IMPACT ON YOUR ORGANIZATION'S ABILITY TO ADOPT AND INTEGRATE MORE AI-POWERED TOOLS OVER THE NEXT 3 YEARS?



#### Al Needs ERP

Cloud ERP contextualizes data automatically making AI success more probable **82%** are either somewhat, very, or extremely confident that their current ERP system will be able to keep up with the changing needs and expectations that the rise of Al is causing in the manufacturing industry.

HOW CONFIDENT ARE YOU THAT YOUR CURRENT ERP SYSTEM WILL BE ABLE TO KEEP UP WITH THE CHANGING NEEDS AND EXPECTATIONS THAT THE RISE OF AI IS CAUSING IN THE MANUFACTURING INDUSTRY?

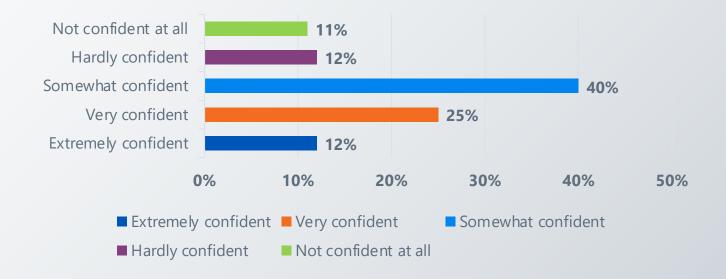


#### **The Data Quality Problem**

Al is only successful if it has quality, accurate data powering it. Unfortunately, only 37% of manufacturers are very or extremely confident in the data underpinning the Al initiatives. ERP is core to ensuring accurate data and improving information sharing across the organization.

HOW CONFIDENT ARE YOU THAT THE CURRENT DATA UNDERPINNING YOUR ORGANIZATION'S AI INITIATIVES IS ACCURATE AND UP TO DATE?

As manufacturers make investments in Al tools, many are taking a platform approach to avoid data silos and disconnected systems that create data challenges. With a platform approach, they're able to leverage one source of truth.



## Al's Impact on Jobs

It is most likely that AI will displace tasks that people aren't effective at and don't want to do. The majority of manufacturers see greater opportunity for AI to help them to do more and better work.

#### Manufacturers Don't Fear Al

When asked about the impacts AI will have on their job, 41% of respondents said they think it will make them more productive and 38% said it will enable them to deliver more value in their jobs. Only 12% of surveyed manufacturers fear that AI will take their job.

#### WHAT TYPE OF IMPACT DO YOU THINK THAT AI WILL HAVE ON YOUR JOB? (SELECT ALL THAT APPLY)

12%

41%

1 think it will enable me to deliver more value in my job

I think it will create more training needs for my organization to fill

I do not think my job will change

1 think it will take my job

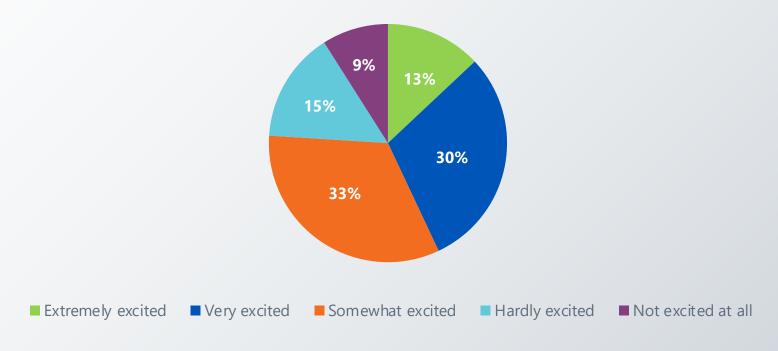
I think it will slow me down

Al will most likely displace tasks that people aren't effective at and don't want to do.

#### **Embracing AI**

In fact, a majority of manufacturers (76%) say they're somewhat, very, or extremely excited to use Al.

#### HOW EXCITED ARE YOU TO PERSONALLY USE AI IN YOUR JOB?



## Future of Al in the Industry

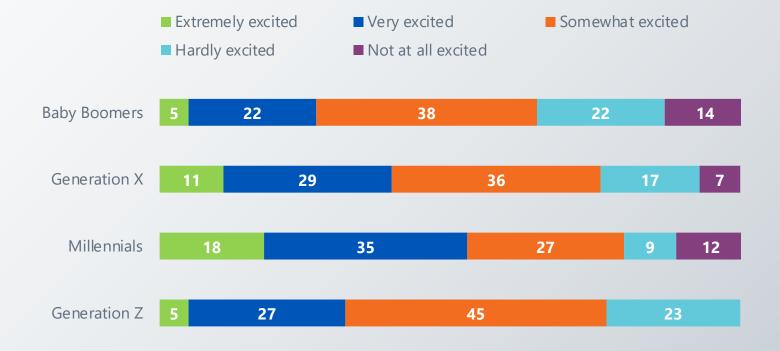
Manufacturers are expanding Al budgets, but their percentage of investment is determining if they will be "leaders" or "laggards" in the Al revolution.

#### **Generational Differences**

#### However, the excitement does vary by generation:

Millennials were significantly more likely to say they were very or extremely excited to use Al (53%) while Baby Boomers show some less enthusiasm (27%).

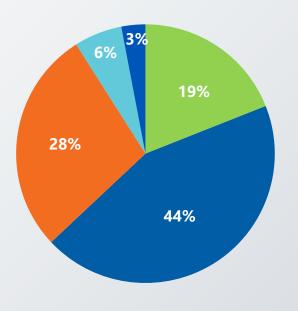
As manufacturers look to recruit the next generation of workers, offering the ability to work with Alpowered tools is an important consideration to stay competitive in the talent market



## Al is Integral to the Forward Trajectory of the Industry

**91%** agree that Al is somewhat, very, or extremely important to the future of manufacturing.

#### HOW DO YOU PERCEIVE THE IMPORTANCE OF AI FOR THE FUTURE OF MANUFACTURING?



■ Extremely important ■ Very important ■ Somewhat important ■ Hardly important ■ Not important at all

#### Manufacturers Are Expanding Al Budgets

To support this momentum, the majority of respondents (82%) will increase their budgets for AI in the next 12-18 months.

- 87% are planning to have these increases be greater than 10%
- 24% are planning substantial increases between 26-50%





#### Where the Money is Going

Respondents increasing their AI budgets will be focused on deploying AI in key business areas to drive future growth: production (36%), quality control (26%), and process optimization (24%) were the top responses for where the resources will be focused.

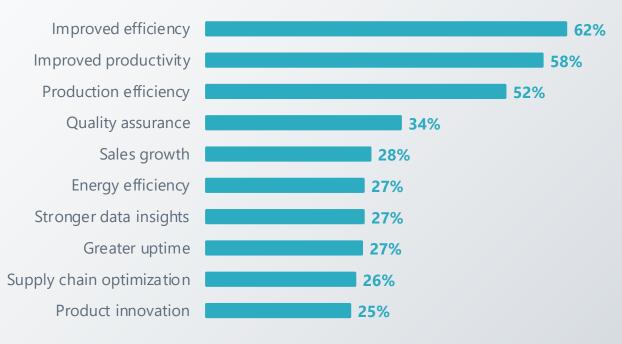




#### Where the Money is Going

With their investments, manufacturers expect improved efficiency (62%), improved productivity (58%), and production efficiency (52%) benefits.





### **Conclusion: Manufacturers See AI as a Real Value Add**

When asked if they could apply AI to solve one problem in their organization, respondents were eager to share what they'd do and where they'd apply these tools:



**Takeaway:** the variety in responses demonstrate the potential of Al across manufacturing and the desire for manufacturers to create more smarter processes.

Rootstock Software provides the leading Manufacturing Cloud ERP, which empowers hundreds of manufacturers to turbocharge their operations in today's dynamic, post-pandemic world. Natively built on the Salesforce Platform, Rootstock delivers a futureproof solution. With it, manufacturers gair the agility to continually transform their businesses to meet evolving customer needs, navigate emerging challenges, and accelerate success. In addition, the "connectability" of Rootstock Cloud ERP gives manufacturers 360° visibility to collaborate with suppliers, trading partners, and the broader value chain.

Ranked as a leader by industry analysts, Rootstock has vertical expertise in discrete manufacturing, medical devices, and high-tech verticals. Rootstock team members partner with customers as trusted advisors in driving change and transformation to what's next.

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