

# The Challenge of TURNING DATA INTO ACTION

Barriers and Solutions  
to Surfacing Value from  
Data in Manufacturing



# MANUFACTURING INDUSTRY LAGS BEHIND IN DIGITAL TRANSFORMATION

The amount of data generated in today's technologically connected world is staggering. But while it's one thing to collect an abundance of data, it's another to be able to analyze and put that data to use for the benefit of a company. The manufacturing industry is no exception.

As remote sensors, connected devices, and software capture a myriad of data on the efficacy of processes and the value of assets, manufacturing professionals are struggling to make sense of what all the data is saying and how to use it to improve their systems. This issue comes at a time when the costs of energy, materials and labor continue to rise and efficiency is paramount.

At Plutoshift, we wanted to examine the issue more closely and uncover the root of the problem, as well as solutions, to how manufacturers can better utilize the data they are already collecting. To get this perspective, we surveyed 500 mid-level manufacturing professionals from an array of industries to find out how they are collecting data, if they are seeing value from that data, the risks to not utilizing the data correctly, and what they need to help them maximize the data they already have.



## ● KEY FINDINGS FROM THE REPORT INCLUDE:

- Nearly half (**48%**) of respondents said their companies use spreadsheets or other manual data entry documents
- Only **12%** of respondents said they take action on their data insights automatically
- **76%** of respondents said in order to take immediate action based on collected data, they need software solutions that analyze data in real-time



## LACK OF ADOPTION OF DIGITAL TRANSFORMATION



**44% said less than half** of their company's manufacturing process is outfitted with industrial IoT technology.

Industrial manufacturing companies are still slow to adopt advanced technologies like AI. While companies have adopted these technologies for some departments, most have not implemented them across the enterprise, leaving gaps of productivity, efficiency and cost control.

Only **11%** said most of their manufacturing process (75% or more) is outfitted with IIoT.



Advanced technologies, such as IoT, are proving to be important tools to propel enterprises forward in the age of digital transformation, to stay competitive and drive new levels of efficiency. However, the adoption rates of such technologies are still low despite research proving the advantages of integrating them into manufacturing systems.

**40%** said their companies are collecting Industrial IoT data via remote sensors.



In fact, not only are companies not adopting, sometimes manufacturing professionals aren't even aware of their own companies' efforts to use these technologies.

**23%** said they didn't know if their company's manufacturing process was outfitted with IIoT.



**28%** didn't know if their company is collecting Industrial IoT data via remote sensors.

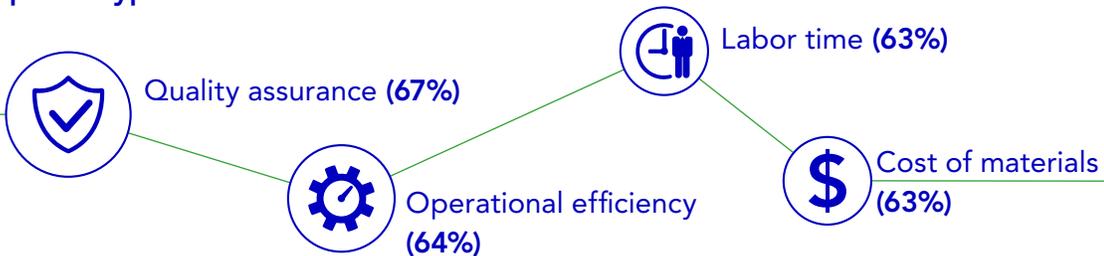
# MANUAL PROCESSES CREATE LAG IN ACTION ON DATA INSIGHTS



Nearly half (48%) of respondents said their companies use spreadsheets or other manual data entry documents.

Data is vital to the day-to-day operations in the manufacturing industry. Not only do companies collect this information to monitor systems and productivity, but in some cases, they are required to collect data for regulatory purposes.

The top four types of data collected are:



Despite the importance of this data, older processes like spreadsheets or standalone solutions still remain in many organizations, often creating inconsistent data, causing cost overruns, and imperiling regulatory compliance.

Additionally, these processes can get in the way of turning data into useful information. Manual data collection processes can also leave segments of the manufacturing process siloed, inhibiting companies from seeing the complete picture. This leads to a number of issues, including mistrust in the data because manual processes are error-prone and may not reflect the most up-to-date information needed to make informed decisions.

Only 12% of respondents said they take action on their data insights automatically.



61% said it was because some of their processes are automated, but most are manual.



37% said that it was due to a lack of trust in the accuracy of data.

# RISKS AND SOLUTIONS TO DATA ANALYSIS IN MANUFACTURING



76% said in order to take immediate action based on collected data, they need software solutions that analyze data in real-time.

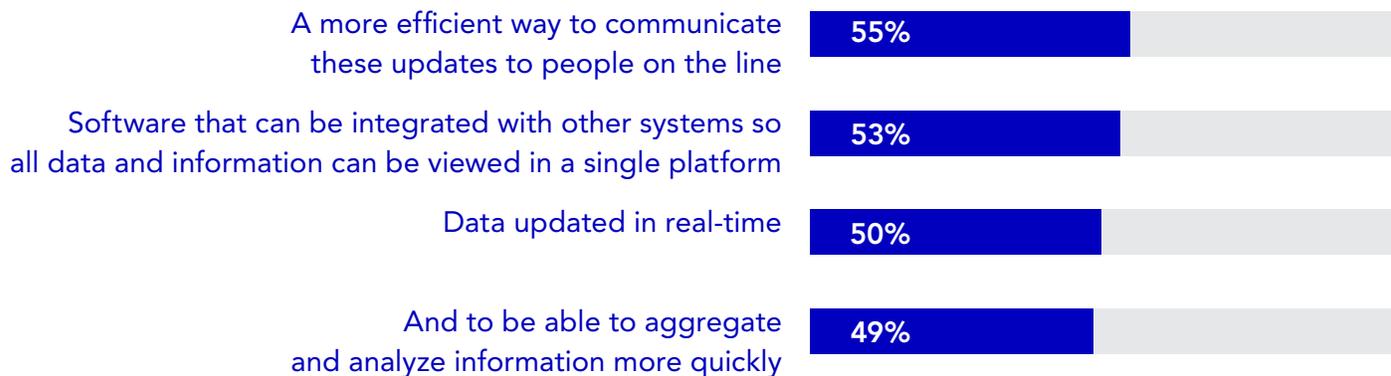
Manufacturing companies are at risk if they continue to depend on legacy and manual data collection systems as these one-off solutions prevent management from making immediate, educated decisions based on accurate and reliable data to improve performance and efficiency of their systems.

## The risks of not being able to react automatically to data insights are:



In order to be able to take immediate action on data insights, manufacturers have identified that software solutions that allow them to analyze data in real-time as a top solution. They must embrace digital transformation solutions if they want to utilize the data they are already collecting to enhance their operations.

## Respondents identified the following solutions their company could use to manage data capture and communication:





## REAL-TIME DATA SOLUTIONS KEY TO OPTIMIZING MANUFACTURING SYSTEMS

As digital transformation continues to sweep across industries and bring advanced technologies into the fold of day-to-day business, manufacturing still lags behind in embracing the potential of these advancements.

This delay in adoption and reliance on legacy and manual systems is becoming a barrier to the manufacturing industry advancing processes and business practices into the digital age. Manual data analysis is robbing manufacturing professionals of the complete picture of their processes and keeping them from making informed, real-time decisions to improve efficiency.

Manufacturers need solutions that enable them to communicate desired changes to processes up the chain of command more quickly and to establish trust in their data. They also need to be able to monitor the use of materials, energy and labor, all vital elements to keep a manufacturing system smoothly.

Software solutions that track and analyze data in real-time are one solution to mitigating the risks of data inaction. When manufacturing managers trust their data and know that the information they are seeing reflects the current status of their processes, they can make informed decisions to continuously improve efficiency and potentially save money on labor, energy and vital materials.

**METHODOLOGY:** In January 2018, Plutoshift surveyed 500 mid-level manufacturing professionals in various industries. This survey was completed online and responses were random, voluntary and completely anonymous.