

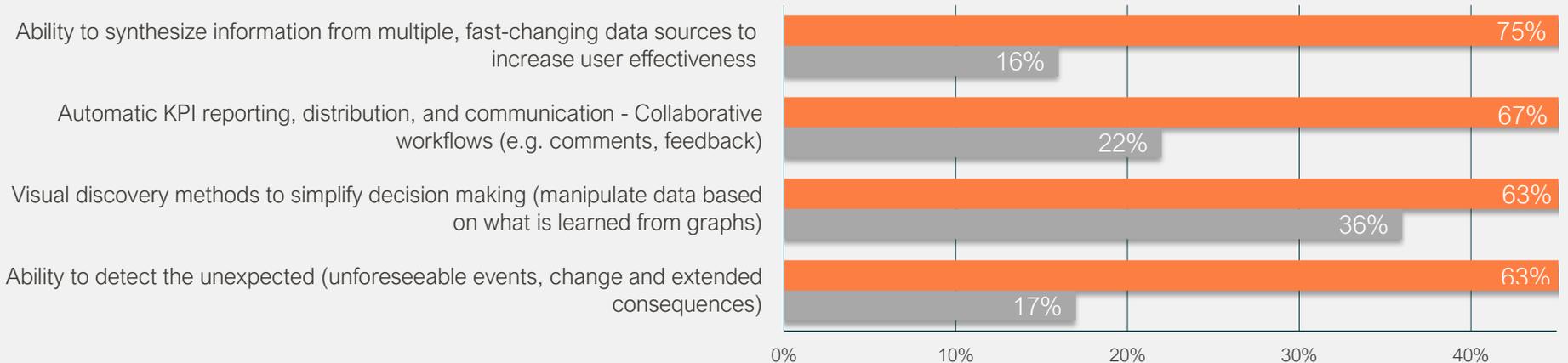


# DATA-DRIVEN MANUFACTURING: KEY FACTORS TO MONETIZE THE ANALYTICAL EDGE

# Intelligence and Analytics are Key Success Factors

- As manufacturers architect and execute Industry 4.0 initiatives, intelligence gathering and analytics are mission-critical components to achieve data-driven manufacturing.
- The Best-in-Class are 175% more likely to use visual discovery methods to simplify decision making.
- Best-in-Class firms are 4.7 times more likely to synthesize information from fast-changing, multiple data sources to increase user effectiveness. They are 3.7 times more likely to possess the ability to detect the unexpected.

## Manufacturing Intelligence is Critical



Best-in-Class All Others

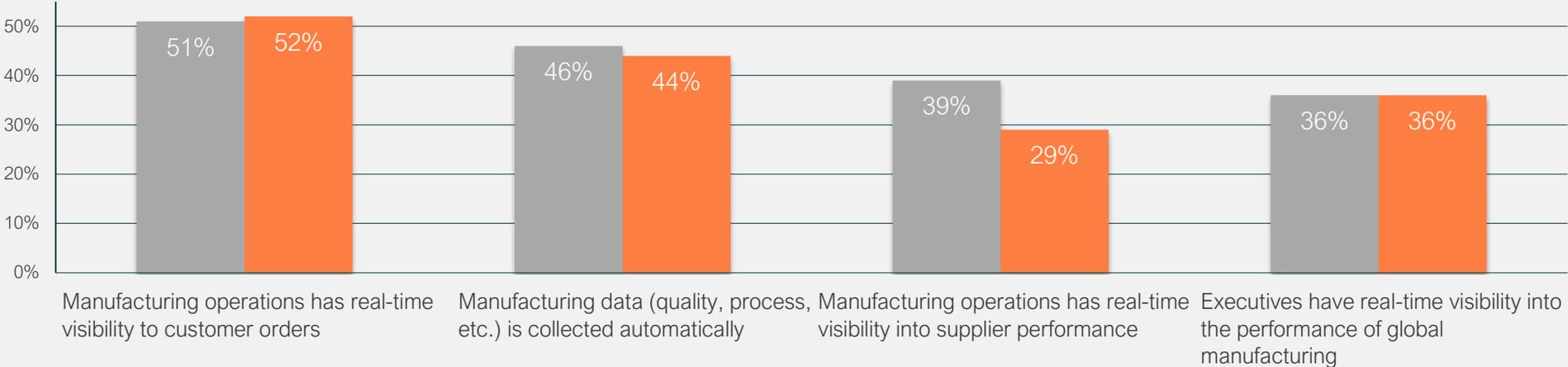
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Source: Aberdeen, February 2018

# Manufacturing Intelligence Imparts Real-Time Visibility

- The foundation of data-driven manufacturing is automatically-collected data; 46% of the Best-in-Class achieve this.
- Executives need the visibility afforded by automatically-collected manufacturing intelligence to keep a real-time eye on the performance of global manufacturing (36%).
- Operations personnel also need real-time visibility into the supply chain, both downstream and upstream. Over half of the Best-in-Class (52%) possess visibility into customer orders and 39% into supplier performance.

## Data-Driven Manufacturing Means Real-Time Visibility



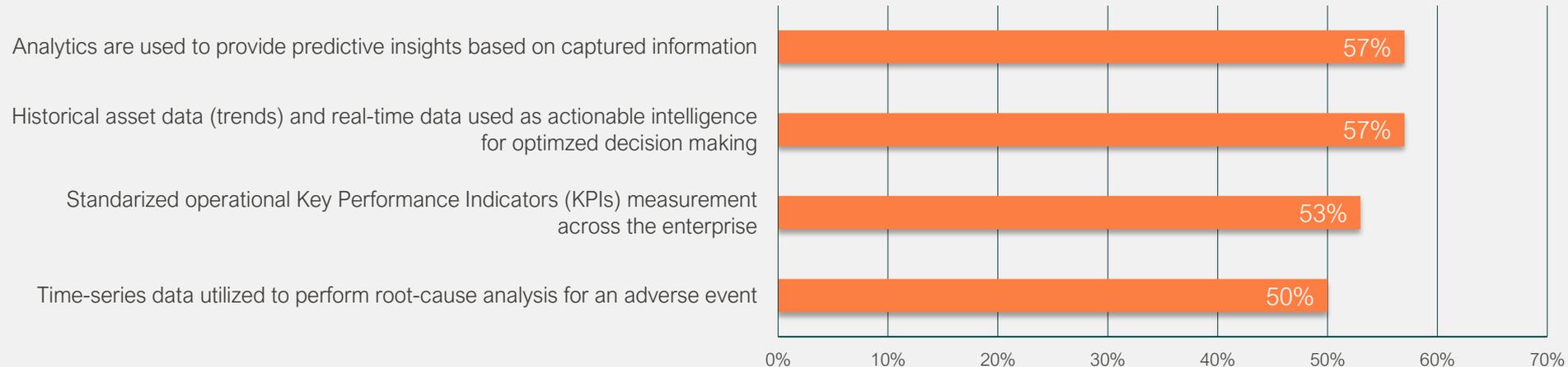
Best-in-Class All Others

n=173 • Source: Aberdeen, January 2018

# Analytics Provide Actionable Insights

- Analytics also permeate the Best-in-Class to enable data-driven manufacturing, with 57% using analytics to provide predictive insights based on captured information.
- An objective, measurable, enterprise-wide view is essential to maximize operational efficiency, and 53% of the Best-in-Class standardize their KPIs across the enterprise.
- The Best-in-Class also achieve optimized decision making via real-time data for actionable intelligence (57%). Plus, they perform root-cause analysis (50%).

## Analytics are Critical for Data-Driven Manufacturing



Best-in-Class

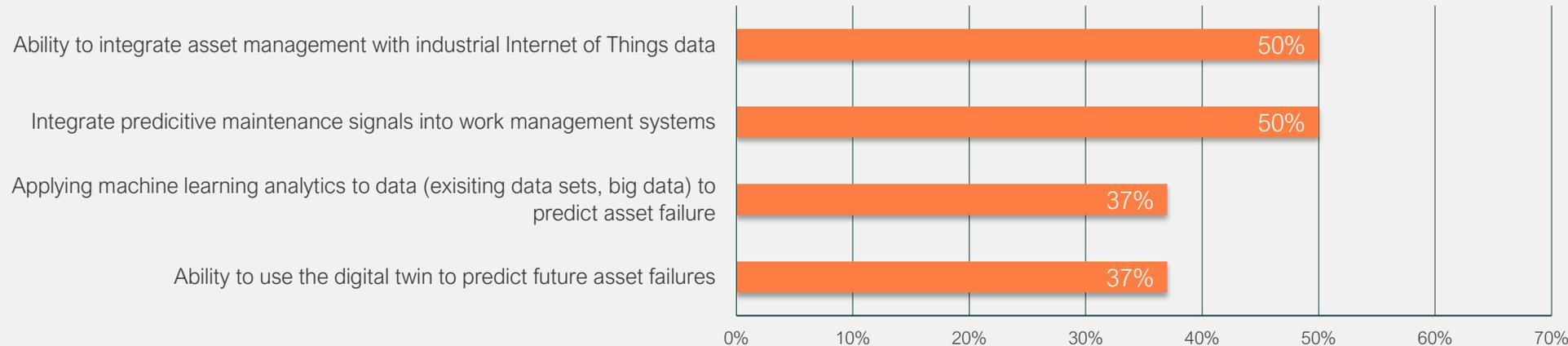
n=173

Source: Aberdeen, January 2018

# Industry 4.0 Analytics Permeates the Best-in-Class

- The Best-in-Class are also beginning to apply machine learning analytics to data, and to use the digital twin to predict future asset failures (37%).
- Exploring and operationalizing Industry 4.0 technologies is GOOD, but integrating these technologies into existing systems is GREAT, and that's the course of action that the Best-in-Class are pursuing. Half of the Best-in-Class:
  - Have the ability to integrate asset management with IoT data
  - Integrate predictive maintenance into work management systems

## The Best-in-Class Go with the Flow of Industry 4.0



Best-in-Class

n=173

Source: Aberdeen, January 2018

# Data-Driven Manufacturing: Reaping Benefits of Analytics

- Firms report that analytics delivers on the promise of data-driven manufacturing via a boost in operational efficiency.
- Data-driven manufacturing has its privileges, and results in reduced production costs (51%) and increased product quality, safety, and compliance (49%).
- Data-driven manufacturing contributes to a better supply chain.
- A rising tide lifts all boats, and analytics positively impacts EH&S, sustainability, customer service, talent acquisition, and new product development too!

## Users Realize the Benefits of Analytics



All Respondents

n=150

Source: Aberdeen, January 2018

# Conclusions / Recommendations

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Data-driven manufacturing drives competitive advantage.

Manufacturing operations involves quick decision making, constant changes, and the accumulation and analysis of large amounts of data. For the Best-in-Class, intelligent use of this data to formulate predictive insights can be the differentiator that your business uses to get ahead of the competition.

Best-in-Class firms lead the way in data-driven manufacturing.

Almost half of manufacturers (47%) state they must become data-driven to become competitive. Companies are beginning to recognize that the vast amount of data generated from products and daily operations can be turned into predictive insight, making for a significant competitive advantage.

The best way to thrive in manufacturing is to become data-driven.

Data-driven manufacturing can have a significant impact on performance by changing how your factory operates. Harnessing the data that your company already owns is a critical differentiator. Don't fight this increasing complexity – embrace it – and adapt your capabilities to become a data-driven manufacturer.