2018 Manufacturing Priorities Survey

L.E.K. Consulting recently surveyed approximately 200 decision-makers across seven manufacturing industries to gain their perspectives on the near-term outlook for U.S.-based manufacturing.

We included the following industries in our survey:

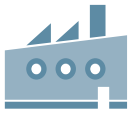
- Industrial manufacturing
- Automotive equipment
- Consumer products manufacturing
- Electronics manufacturing
- Electrical equipment and components
- Aerospace and defense equipment
- Construction equipment

The 2018 Manufacturing Priorities Survey was conducted by **Eric Navales** and **Carol Wingard**, Managing Directors, and **Alexa Allen**, Engagement Manager, in L.E.K. Consulting's Industrials practice. Carol and Eric are based in Boston, and Alexa is based in Chicago.

For more information, contact **industrials@lek.com**.

L.E.K.

Manufacturers bullish on outlook, but concerned about skilled labor gap



Industry outlook

- U.S. manufacturers are an extremely optimistic group, anticipating accelerated growth in U.S. manufacturing opportunities and investments over the next five years. In fact, they are even more bullish than they were four years ago when L.E.K. conducted its last manufacturing priorities survey.
- Like a number of other industries, manufacturers see substantial opportunities through ecommerce partnerships (e.g., Amazon).

Strategic imperatives

- Manufacturers continue to invest in automation technology as a key pillar of their overall growth strategy, as well as related enablers such as workforce retraining and upgrades to quality assurance (QA)/quality control (QC) functions.
- As the "customer-centricity" market trend continues, manufacturers see traditionally non-customer-facing departments (e.g., manufacturing, supply chain) shifting in that direction over the next several years.
- Developing Internet of Things (IoT)-enabled products is a priority, although many manufacturers are still in the nascent stages of commercialization.

Risks and concerns

- With the increased focus on automation and digital initiatives, manufacturers are concerned about potential skilled labor gaps. This shortage of manufacturing employees who can function in the increasingly complex, digital workplace could hamper their overall automation strategy.

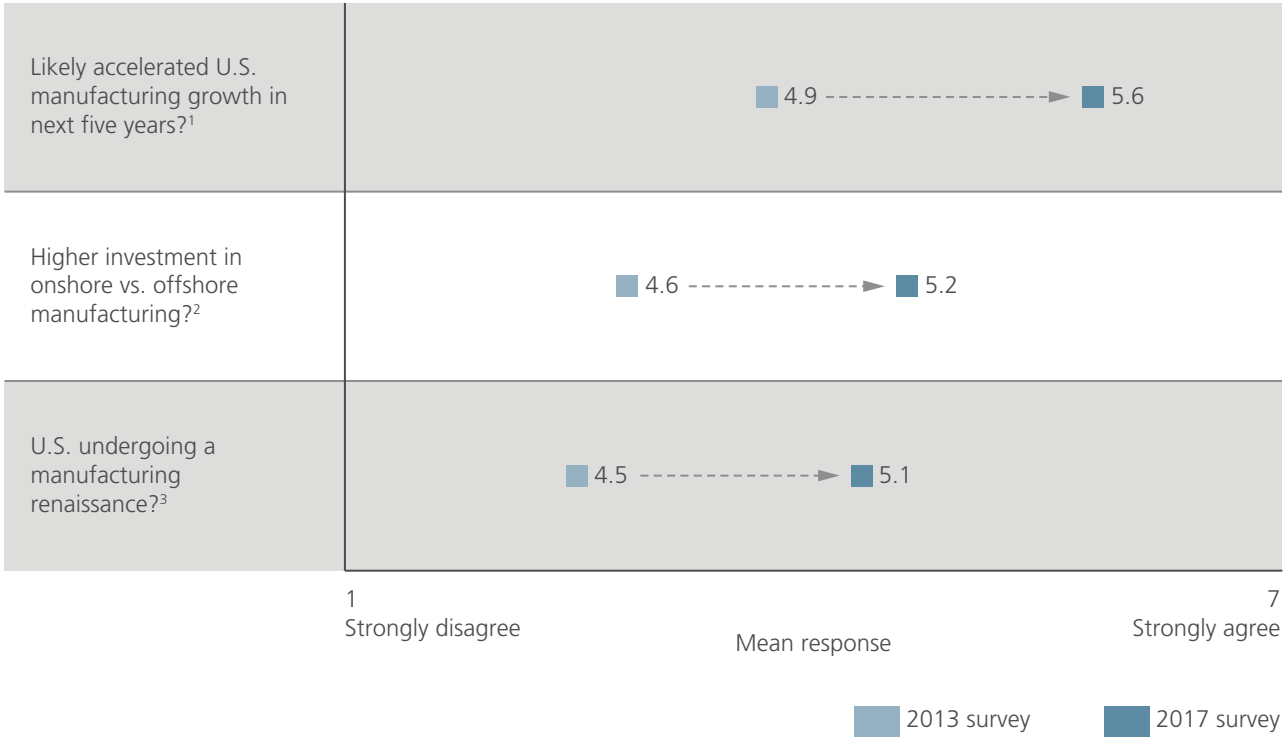
Industry outlook ▶

Manufacturers confident about accelerated growth and investment

We asked manufacturers about where they think the industry is headed, and here's what we uncovered:

- Optimism is high for accelerated growth and investment in onshore manufacturing
- Manufacturers are even more bullish today about the industry's outlook than they were in 2013
- Manufacturers suggest that the ability to better respond to customer needs, having an adequate number of skilled employees and increased automation are primary drivers of the strong U.S. manufacturing outlook

Expectations of U.S. manufacturers



Survey questions: [1]To what extent do you believe that U.S. manufacturing within your industry will experience an accelerated growth rate over the next five years (when compared to the last five-year period)? [2]Within your industry, to what degree do you believe investment in U.S.-based manufacturing (onshore) will increase more than offshore manufacturing? [3]To what extent do you believe the U.S. is undergoing a manufacturing renaissance?
Source: The Reshoring Initiative, L.E.K. Manufacturing Survey (n=192)

Ecommerce partnerships ▶

Ecommerce partnerships seen as growth opportunity

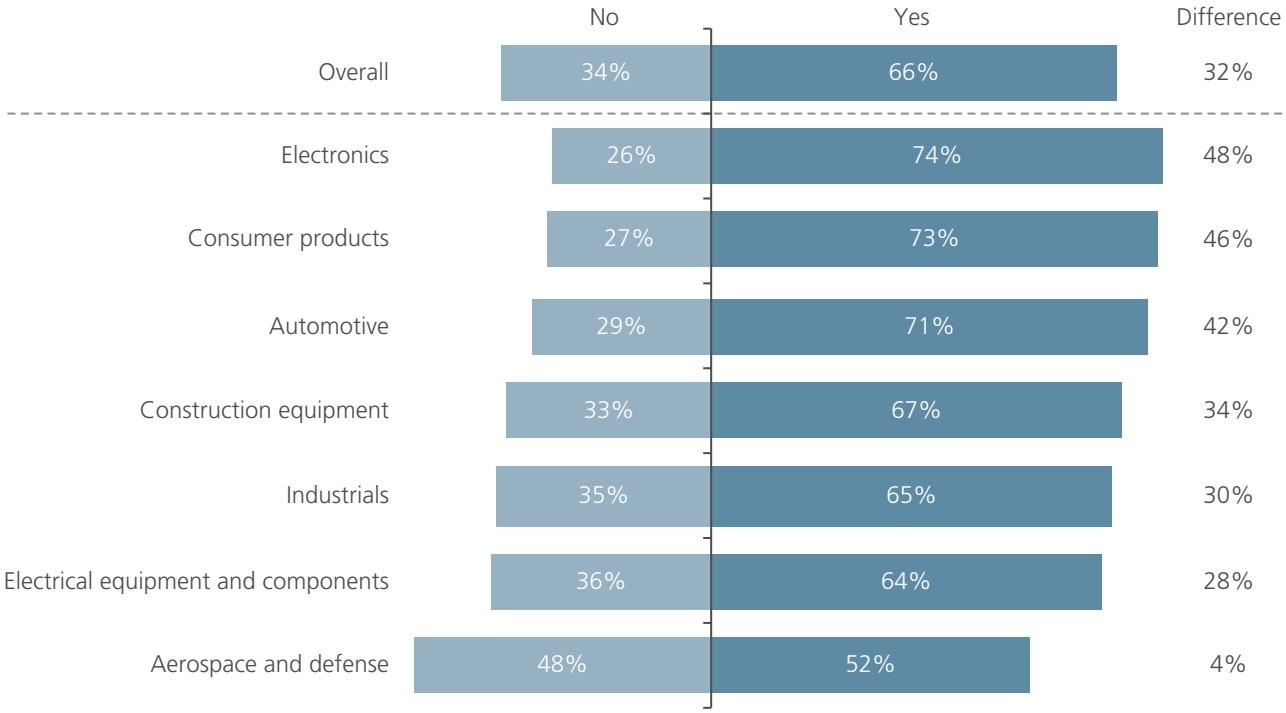
Two-thirds of manufacturers view existing ecommerce players (e.g., Amazon) as potential partnership opportunities to further drive business. Other takeaways from our survey include:

- Key hurdles to partnership opportunities include product-specific nuances (e.g., specialization, commoditization risk), information technology hurdles and customer concerns (e.g., varied customers)
- Only a small number of manufacturers see existing ecommerce players as a threat. To add value to customers, these firms intend to increase customer responsiveness and add cross-value chain partnerships

Overall, our thinking is that Amazon can provide manufacturers immense channel access in the short term; however, potential future conflict with more profitable and/or important channels may decrease the attractiveness of ecommerce partnerships.

Opportunities for ecommerce partnership

Percentage of respondents, overall and by industry



Survey question: Do you suspect there are opportunities to partner with an ecommerce player?
Source: L.E.K. Manufacturing Survey (n=178)

Strategic initiatives ▶

Transformative initiatives shape strategic priorities

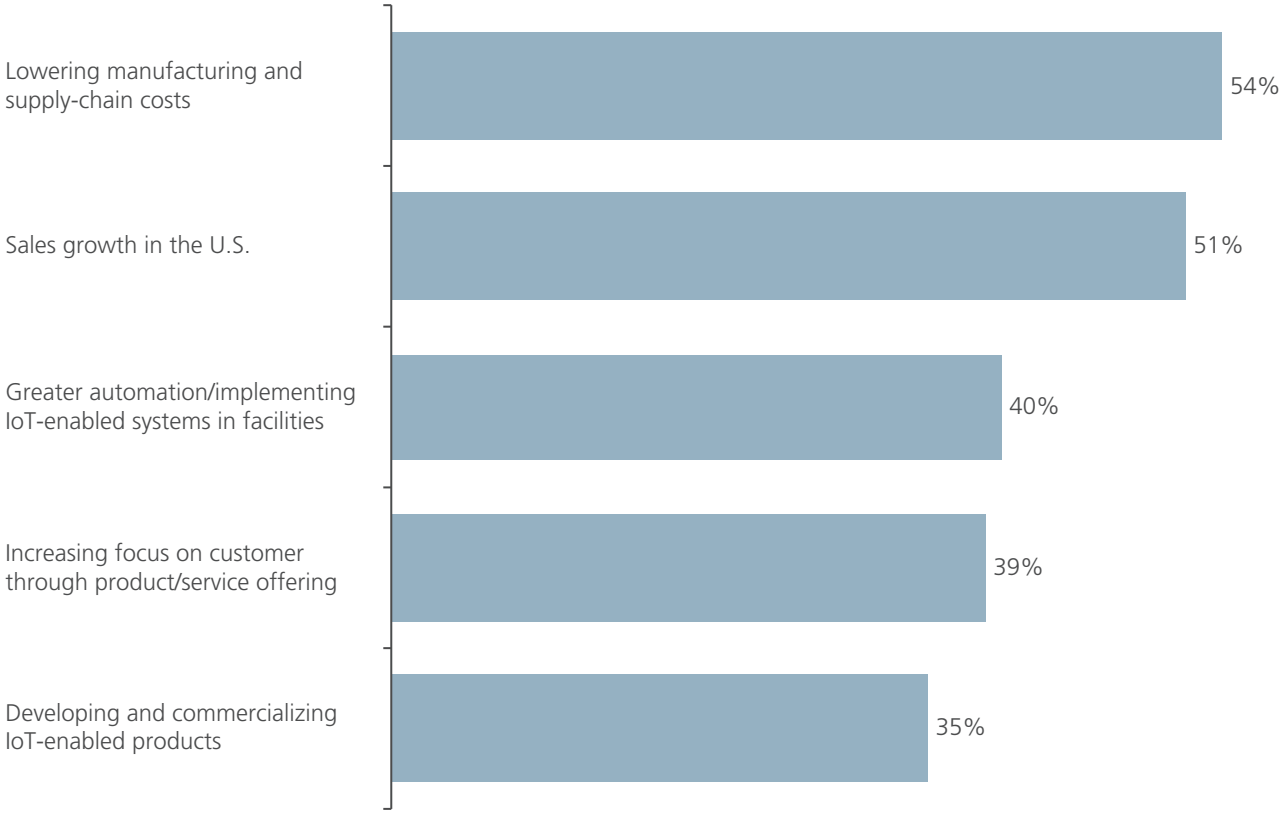
Not surprisingly, lowering costs and boosting sales growth are the top strategic priorities for the U.S. manufacturing firms we surveyed. However, many firms are also tackling large, transformative initiatives to remain competitive, namely:

- Adopting more automation and IoT-enabled systems in their manufacturing and operations
- Developing a customer-centric focus to better bring to market the right products and services for each customer segment

Some firms are also strategically prioritizing their R&D and commercial efforts to enter the burgeoning and potentially disruptive IoT market.

Manufacturers' strategic priorities for the next five years (2018-23)

Percentage of respondents noting priority as a top-three concern



Survey question: Over the next five years, what are the most important strategic priorities for your company?
Source: L.E.K. Manufacturing Survey (n=192)

Increased automation ▶

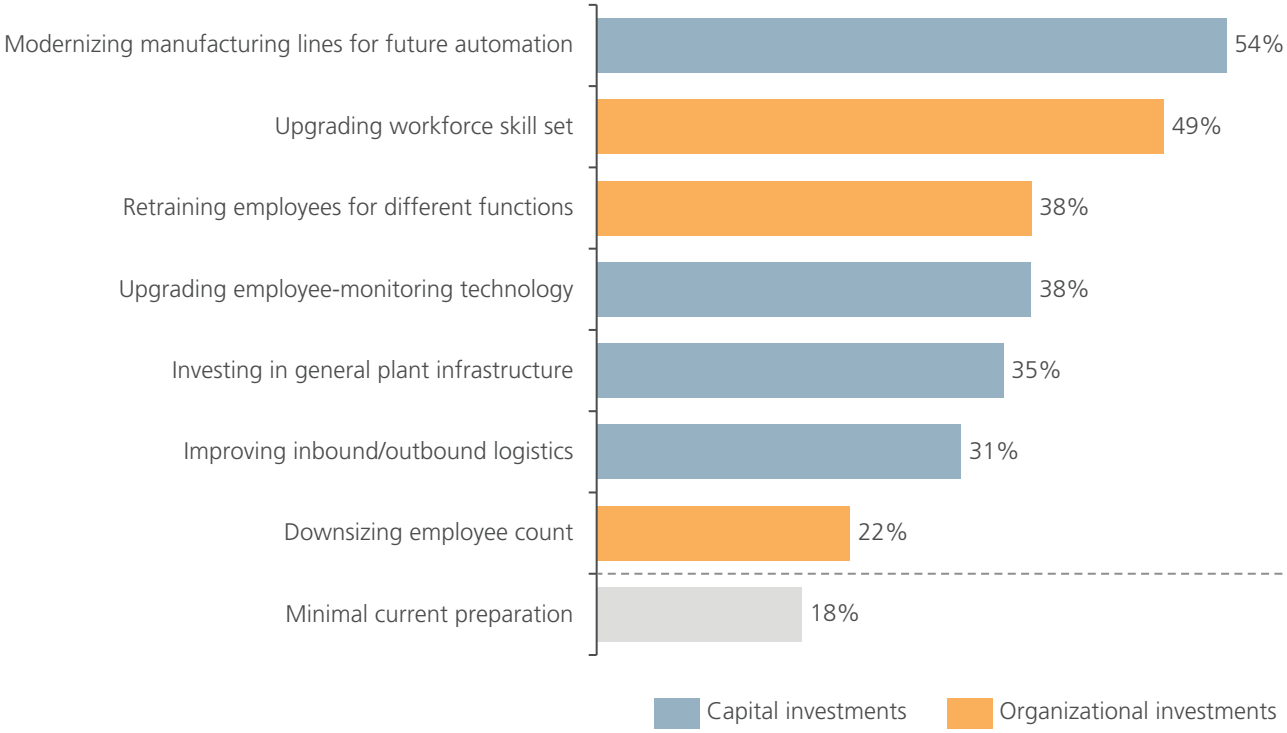
Increased automation bolsters investment in workforce

Four out of five U.S. manufacturers are preparing for an increase in automation — and employee retraining and upgrading (rather than downsizing) are pervasive themes among those we surveyed. Only 18% of respondents indicate that they have minimal plans for automation in place.

Interestingly, while automation is often touted as a threat to manufacturing jobs, companies are actively investing in their current workforce through retraining employees and upgrading employees' skills. Simply put, downsizing is not a current priority for U.S. manufacturers.

U.S. manufacturers' key preparations for adopting automation

Percentage of respondents



Survey question: In your company, what preparations are being taken to prepare for incremental advances in automation?
Source: L.E.K. Manufacturing Survey (n=192), L.E.K. research and analysis

Skilled labor shortage ▶

Skilled labor shortage could hamper innovation

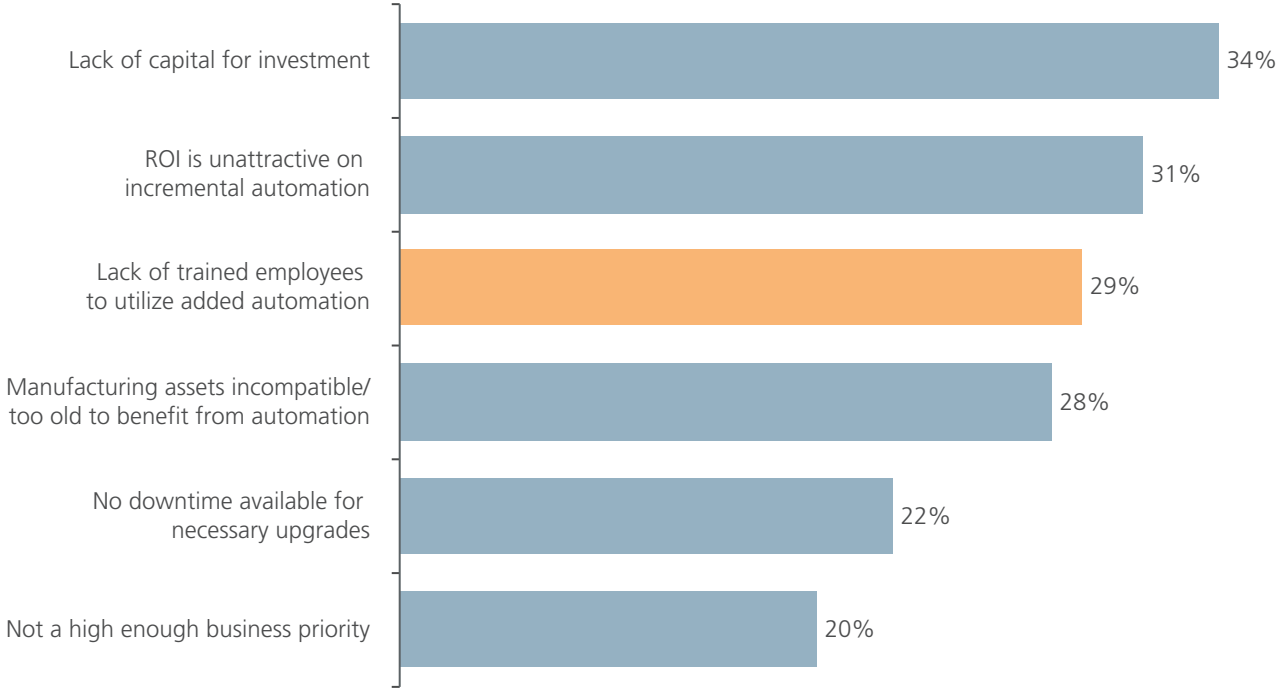
While manufacturers are investing in their current workforce through retraining and skills upgrading, they are still concerned about a shortage of skilled labor for the digital factory of the future. In fact, beyond capital and financial limitations, a lack of skilled labor is one of the primary hurdles preventing manufacturers from implementing additional automation over the next five years.

Manufacturers also indicate that access to key talent pools is a primary driver of facility expansion in new or existing sites.

Overall, manufacturers do not believe this challenge is temporary, with labor shortages expected to be an increasing concern over the next five years.

U.S. manufacturers' key hurdles to adopting automation

Percentage of respondents who selected issue as a top-three concern



Survey question: In your company, what do you view as the key hurdles over the next five years in implementing further automation?
Source: L.E.K. Manufacturing Survey (n=189)

Customer-centricity trend ▶

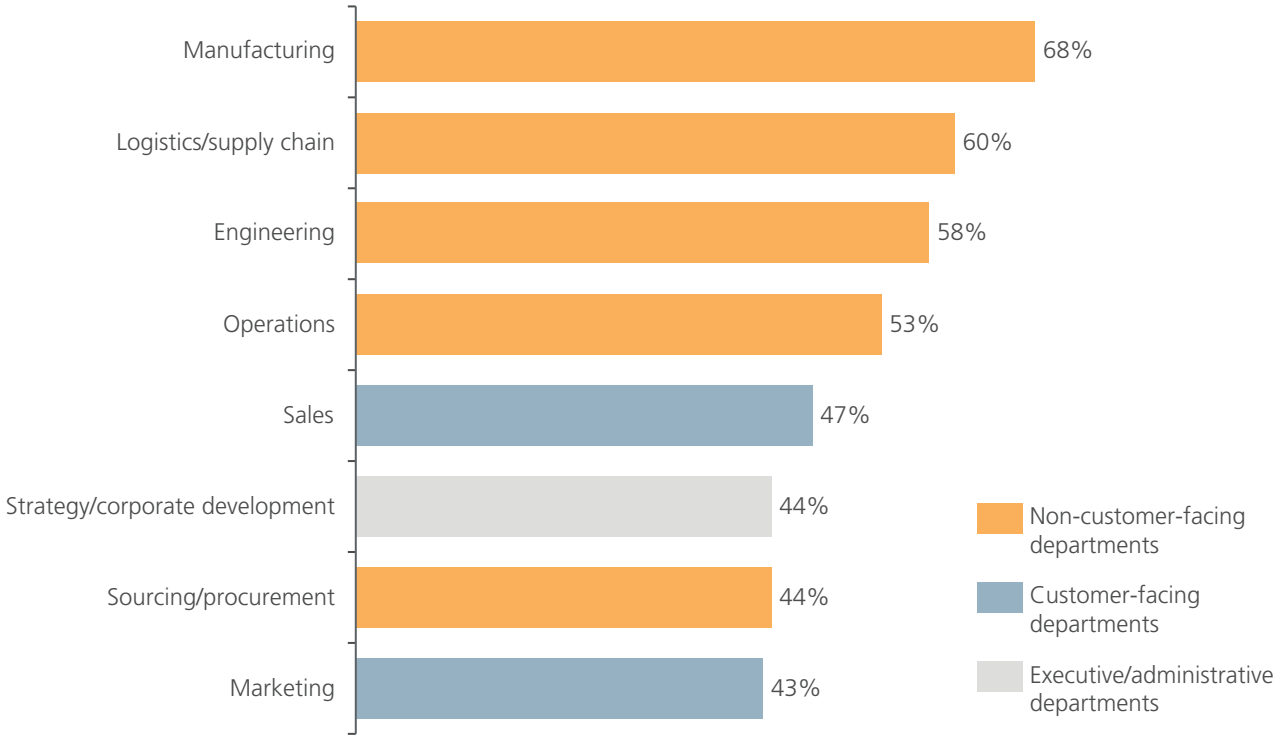
Customer-centricity trend expands beyond sales and marketing

While the concept of customer-centricity is not new, manufacturers see their non-customer-facing departments (e.g., manufacturing, supply chain) shifting toward customer-centricity over the next several years. We believe this shift will occur for two reasons:

- Sales and marketing teams are typically the first to organize and reshape themselves into a customer-centric model, so in some respects they are already closer to the goal than internal departments
- While necessary, top-level initiatives are insufficient in developing a true customer-centric organization; targeting non-customer-facing departments drives operational and cultural change throughout the company

Departments likely to be impacted by customer-centric shift

Percentage of respondents



Survey question: We'd also like to understand how this change will impact your company at the department level. When considering higher future customer expectations, which divisions of your company are most likely to be impacted?
Source: L.E.K. Manufacturing Survey (n=131), L.E.K. research and analysis

Internet of Things ▶

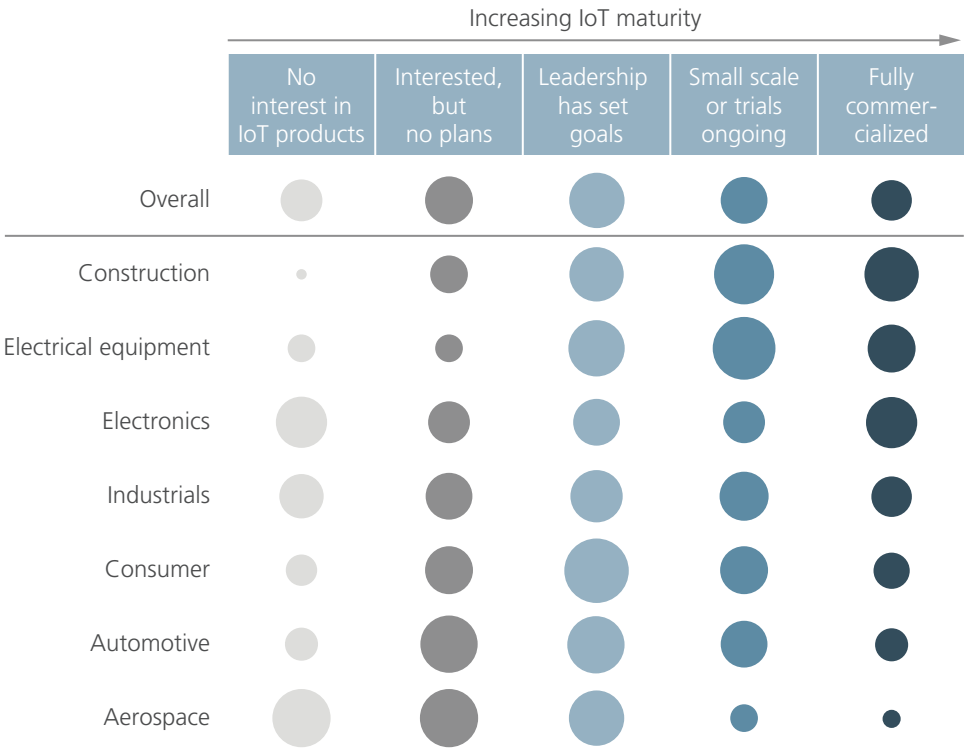
Most companies in early IoT development stages

Across all markets, most firms are interested in IoT products, but many lack formalized commercialization plans or are only in the internal planning stages.

What's causing the delay? Data is a key factor that presents myriad questions that should be answered before advancing to later stages in the development process: Who owns the data? How should it be collected? Who analyzes it? How can data analytics provide a competitive advantage in a sustainable and profitable business model?

It's little surprise, then, that 48% of manufacturers have buy-in at the executive leadership level, but only 15% of manufacturers have reached the commercialization stage.

Manufacturers' status in launching IoT-enabled products



Size of bubble corresponds to percentage of responses

Survey question: At what stage of commercialization are your company's IoT-enabled products?
Source: Business Insider Intelligence, Ibid., L.E.K. Manufacturing Survey (n=192), L.E.K. research and analysis

Hurdles to IoT commercialization ▶

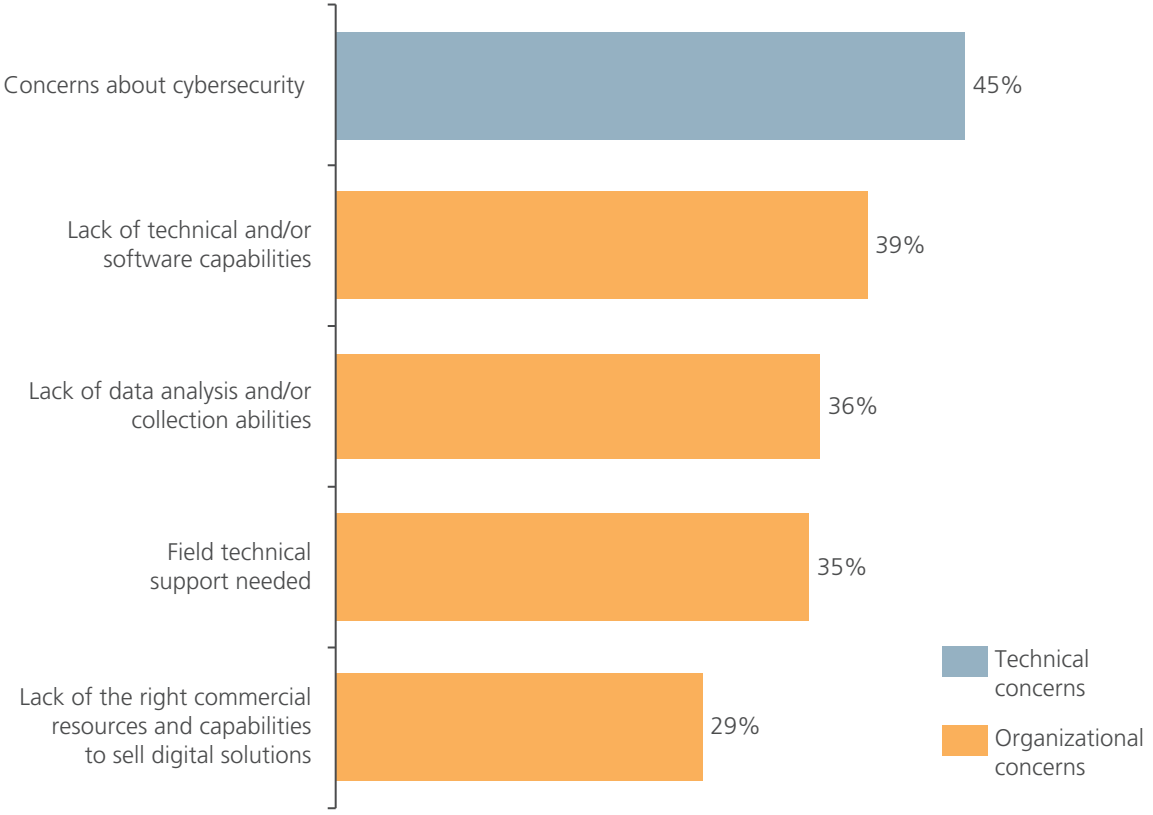
IoT faces cybersecurity, workforce shortage hurdles

It's not unexpected that cybersecurity is a top consideration among firms when considering commercializing IoT-enabled products. In particular, 58% of automotive manufacturers noted cybersecurity as a concern, given increased connectivity and the emerging autonomous vehicle trend.

A large number of manufacturers also cite a lack of technical, analytical, field support or commercial skills as obstacles to launching and supporting an IoT offering — further suggesting rising concerns of a workforce shortage for increased automation and digitization of the manufacturing industry.

Manufacturers' key hurdles to IoT-enabled products

Percentage of respondents



Survey question: What key factors are hindering your ability to launch an IoT-enabled product offering?
Source: L.E.K. Manufacturing Survey (n=161), L.E.K. research and analysis

IoT wait-and-see strategy ▶

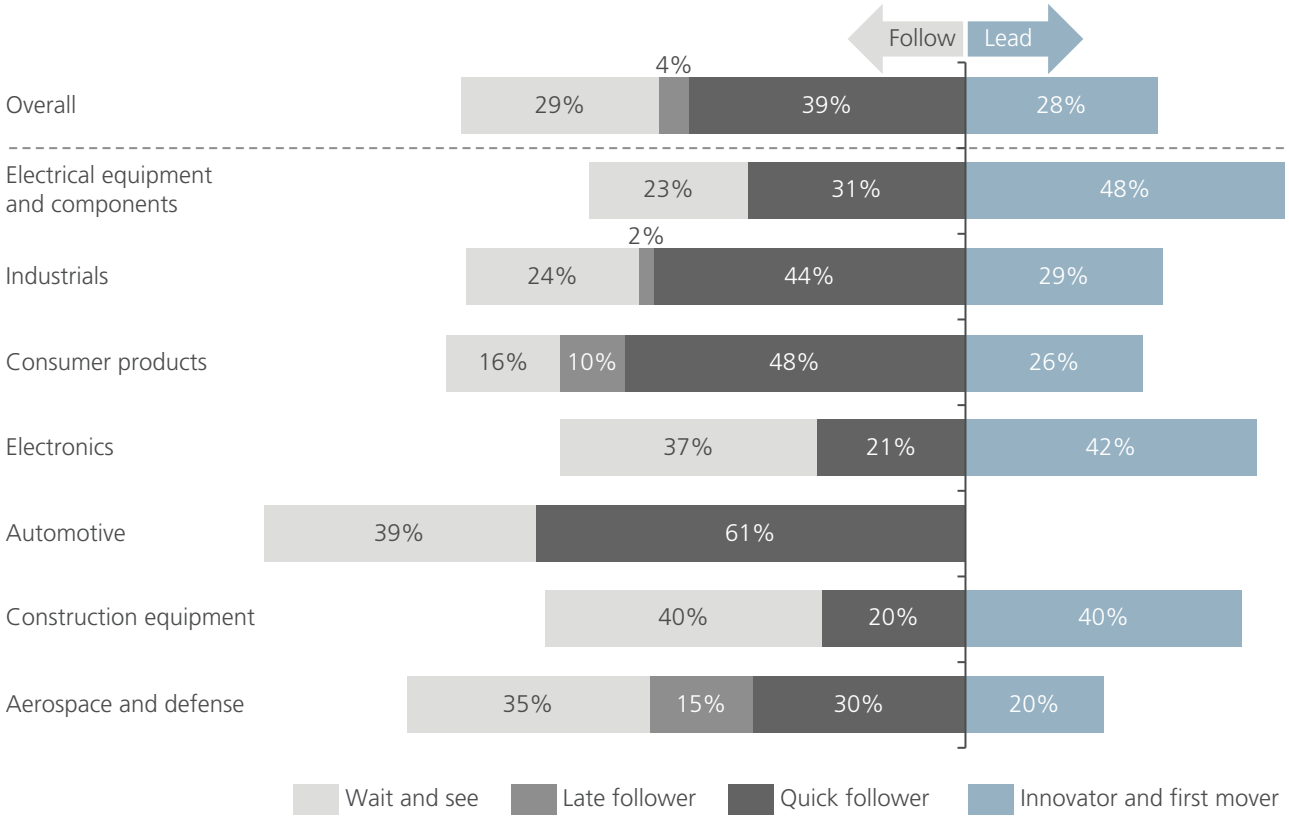
Most manufacturers have "follower" strategy for IoT

Are the hurdles to IoT deterring manufacturers from leading instead of following? Approximately 70% of manufacturers are taking a wait-and-see or quick-follower approach to commercializing IoT products, demonstrating some lingering apprehension toward heavily investing in the IoT market at the moment.

Despite the promise and market opportunity in the industrial IoT, these follower strategies suggest many companies still lack a clear and compelling vision of how they can operate and thrive in the IoT-enabled future.

Manufacturers' preferred strategy for the IoT market

Percentage of respondents



Survey question: How do you characterize your company's position versus the industry with regard to developing and commercializing IoT-enabled products?
Source: L.E.K. Manufacturing Survey (n=161), L.E.K. research and analysis

Strategic considerations ▶

Strategic considerations

The current state of the U.S. manufacturing environment creates substantial opportunity for participants. From ecommerce partnerships and increased technology to a move toward customer-centricity, additional considerations can help manufacturers be best prepared.

Explore ecommerce opportunity — In the near term, evaluate potential partnership options presented by existing ecommerce players (e.g., Amazon). However, longer term, recognize there may be potential for channel and/or customer risk.

Prepare for labor gaps — Evaluate expected labor force shortages and begin to plan and execute a strategy for targeted identification, training, and retention of talent across current and future company priorities.

Look at customer-centricity holistically — Firms have begun to implement a variety of customer-centric initiatives, but overall appear to lack a comprehensive, strategic approach. Ensuring cross-functional evaluation and planning will optimize impact.

Analyze IoT potential — Many companies lack a clear and compelling vision of how they can operate and thrive in the IoT-enabled future, invest in evaluation of this opportunity, and understand how it can potentially drive value.

For more information, contact industrials@lek.com.

Survey methodology

L.E.K. Consulting's proprietary survey was conducted in November and December 2017. We surveyed approximately 200 decision-makers across seven manufacturing industries using the following criteria:

- Industrial equipment and components manufacturers
- Company revenues greater than $500 million
- Operations or strategy function within their company
- Senior manager or above

Where appropriate, we conducted additional secondary research to validate and supplement the survey findings.

About the Authors

Eric Navales is a Managing Director and Partner in L.E.K. Consulting's Boston office, focused on the firm's aerospace and defense, building products and materials, industrial equipment, and energy and environment sectors. He has more than 10 years of consulting experience working on a wide variety of projects, including corporate strategy development, market forecasting, and mergers and acquisitions support.

Carol Wingard is a Managing Director and Head of L.E.K. Consulting's Industrials practice in the Americas. Based in Boston, Carol has more than 25 years of strategy consulting and business development experience working with clients to develop and implement growth strategies. In addition to managing the Industrials practice, she leads the chemicals and industrial equipment sectors, is the former Managing Partner of L.E.K. China (where she spent over a decade) and has served on the Global Leadership Team.

Alexa Allen is an Engagement Manager in L.E.K. Consulting's Chicago office. Alexa is focused on the Industrials practice, with extensive experience in new product growth strategy, new market entry and M&A/transaction support. Her work spans several Industrials subsectors, from building products and industrial distribution to energy and aerospace.

About L.E.K. Consulting

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