



The future of smart industrials

The race to digitally
enabled services



Foreword

Service is the new growth engine

These are pivotal times for industrial manufacturing. Manufacturers must navigate an unfamiliar environment shaped by advances in disruptive technology, economic turmoil, shifting customer expectations, uncertain labor and materials supply markets, and the world's emergence from the COVID-19 pandemic. In our view, this sector will continue to experience increasing disruption in the near future.

We see the sector migrating towards a smart industrial strategy, shifting from a legacy product-centric focus to a customer-centric focus empowered by digitally enabled aftermarket and field service. Future-focused manufacturers can win by embracing digitally enabled services as the foundation of both their business and operating models, pursuing smart practices in a multitude of strategic areas from operations to customer value to sustainability.

KPMG International, in a commissioned survey conducted by Forrester Consulting, engaged 395 industrial manufacturing leaders across the globe to understand their perspectives on the opportunity and impact of digitally enabled aftermarket and field service on the sector's future. Participants included manufacturers that classify themselves as machinery and component as well as project or solution providers.

A primary takeaway from the survey is the extent to which these business leaders recognize the shifting landscape and are investing in making the transition. More than six out of 10 of executives in our survey indicate their organizations are currently investing in or have included investment in their capital plans for digital transformation and connected products.

In this report, we explore the opportunity for industrial manufacturers to drive improved customer experience while enhancing efficiency and effectiveness through digitally enabled aftermarket and field services. We also discuss the challenges manufacturers are experiencing with their current efforts and the capabilities that are needed for success.

If you would like to discuss how KPMG professionals can help you evaluate and accelerate your organization's journey towards a digitally enabled aftermarket and field services transformation, please contact us or your local contacts listed.



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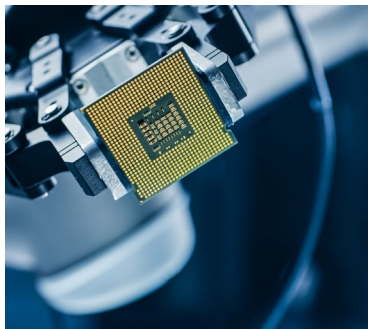
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The current environment

For many, the first image that comes to mind when considering manufacturing is not aftermarket and field service. Manufacturing typically conjures images of products and the factories and supply chains that produce them. In fact, products have long been the lifeblood of manufacturers. The manufacturing industry has been able to produce an incredible track record of product innovation and productivity improvement, which has buoyed the sector and contributed significantly to customer value. However, recent supply chain, workforce, and macroeconomic challenges have chipped away at opportunities for manufacturing productivity, revenue, and margin growth. In fact, according to the Bureau of Labor Statistics, “labor productivity decreased in 21 of the 24 three-digit NAICS manufacturing and mining industries in 2022.”¹

For many manufacturers, an answer to these challenges in the core manufacturing business is to increase their focus on the service business. Service in manufacturing is not new. Based on our survey findings, 37 percent of manufacturers already drive revenue by selling service parts. Twenty-eight percent provide field technician service to their customers, and 27 percent provide system integration services. In fact, based on our study, 23 percent of total revenue for manufacturers already comes from services.

With product lifecycles of 10, 15, or even 50 years, manufacturers have many years of potential services revenue to earn for a given product sale. Further, through service relationships, manufacturers can shape customer experience and drive customer loyalty over that period. However, several barriers have held back service growth: For 22 percent, service growth has simply not been a priority. For 25 percent, a top barrier has been that compensation and incentives are not aligned with service growth. Another 27 percent cite field workforce management challenges. Thirty-seven percent cite competition for service sales as a top barrier in growing services. In many cases, that competition comes from distributors, installers, and other channel players that have local presence, reach, and resources, as well as close customer relationships. In other cases, customers self-service the equipment they buy from manufacturers.

However, services in manufacturing are poised for dramatic growth. Study respondents are targeting annual service growth of 17 percent through 2025. Much of that growth will come from digitally enabled services. In fact, digitally enabled services are expected to grow 28 percent annually from 2022 to 2025. By 2025, manufacturers expect that digitally enabled services will comprise 72 percent of their services revenue. Manufacturers expect that non-digitally enabled service revenue will actually decline by 1 percent over that same period. This dramatic growth of digitally enabled services is unlocked by the convergence of several technology trends and capabilities that are turning traditional industrial manufacturers into smart industrials. New technology capabilities allow manufacturers’ products to be “connected”—to send and receive data that allows manufacturers to monitor the equipment and gain operating and maintenance insights.

Manufacturers can use those insights to inform and improve service. Technology advances also mean that manufacturers can increasingly provide remote or even automated service. Simultaneously, solutions for managing aftermarket and field service have matured, and been cloud and mobile enabled, giving manufacturers better capabilities for managing and delivering the services they provide to customers. In addition to standard capabilities such as service ticket management and technician dispatch, generative AI enables improved interaction, service recommendations, solution engineering, and service knowledge management. Additional new capabilities include digital twin modeling and augmented reality for service support.

The shift to digitally enabled services is key for several reasons. Thirty-eight percent of study respondents cite the ability of digitally enabled service to provide incremental service growth. Twenty-three percent of respondents see the opportunity for higher margins from digital service. Forty-one percent see digitally enabled service as an enabler of greater customer insights, and 43 percent of study respondents cite customer loyalty as a primary outcome. Fully 44 percent expect that digitally enabled service will lead to increased product sales.

¹ “Manufacturing and Mining Labor Productivity,” bls.gov, April 27, 2023

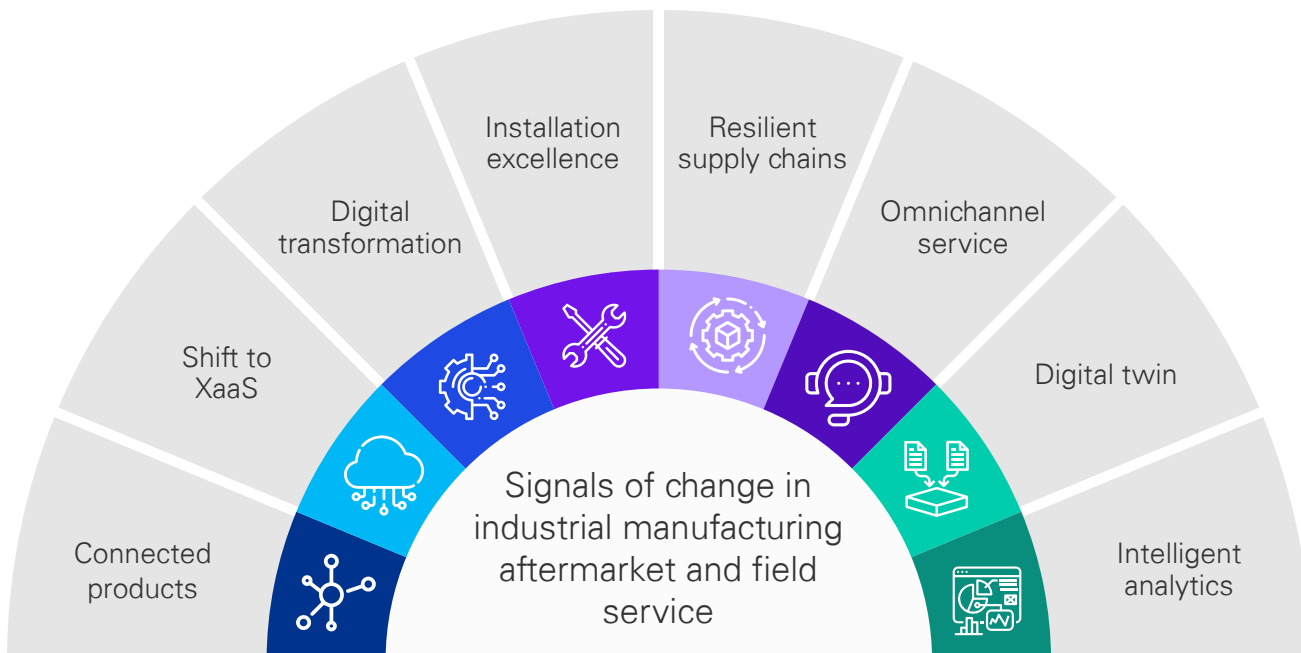


Signals of change

Everywhere you look, there are signals of change for aftermarket and field service in industrial manufacturing. KPMG firms' experience and research indicate that industrial manufacturers are facing a rapidly evolving market characterized by technology disruption, changing customer demands, privacy and security challenges, and operational challenges.

KPMG professionals identified eight signals of change based on the investment priorities that industrial manufacturing survey respondents reported. Manufacturers should gauge the presence and strength of these signals in their own market and customer base to help set their strategies and priorities.

Signals of change



1. Connected products



Development and deployment of connected products will create digital services that improve service efficiency and effectiveness, increase customer lifetime value, and drive services growth. In our survey, 85 percent of respondents indicated current plans to invest in connected products, with another 22 percent anticipating including investment in later horizons of their capital plan. Only 5 percent have no plans to invest.

Connected products factors with the greatest impact on aftermarket and field service

Visibility of equipment use and performance, enabling improved service effectiveness and efficiency



Use of digital twin capabilities to develop visibility of the install base of deployed products, modeling/simulation cap



Increase in opportunity to “attach” services to product sales and to maintain ongoing service agreements



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

2. Shift to XaaS models



Manufacturers' shift to an anything-as-a-service (XaaS) model involves the development of new services as well as the capabilities to price, sell, deliver, and bill for a broad range of services through subscription, pay-for-use, or other models. Seventy-three percent of our survey respondents indicated current plans to invest in XaaS, with another 22 percent anticipating including XaaS investment in later horizons of their capital plan. Only 5 percent have no plans to invest. This level of adoption of XaaS models in the manufacturing sector signals likely changes to customer buying behavior and manufacturer business, revenue, and contracting models.

XaaS factors with the greatest impact on aftermarket and field service

Introduction of intelligent digital services



Monetizing data from connected products and sensors



Shift to outcome-based services



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

3. Digital transformation



Manufacturers are modernizing and transforming their organization's technology architecture, applications, and infrastructure. This is allowing them to establish seamless technology integration and adopt advanced digital capabilities, such as generative AI and augmented reality (AR)/virtual reality (VR)/mixed reality (MR). Ninety percent of respondents indicated current plans to invest in digital transformation with another 10 percent anticipating including investment in later horizons of their capital plan. Fewer than 1 percent have no plans to invest.

Digital transformation factors with the greatest impact on aftermarket and field service

Transformation of technology applications across the service lifecycle



Development of enhanced integration to support connected products and services



Shift in talent acquisition strategy and internal talent upskilling around technological capabilities



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

4. Installation excellence



Manufacturers are optimizing capabilities to install/implement solutions that maximize value to the customer while increasing service attach rate for digital services and customer lifetime value. Eighty-five percent of respondents indicated current plans to invest in installation and implementation, with another 15 percent anticipating including investment in later horizons of their capital plan. Fewer than 1 percent have no plans to invest.

Product installation factors with the greatest impact on aftermarket and field service

Overall project profitability management



Optimizing project and resource scheduling, management, and tracking



Effective coordination of project materials availability and delivery



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

5. Resilient supply chains



Manufacturers are building resilient supply chains that connect customers, channel partners, sales, field service, supplier development, and procurement processes to orchestrate visibility and collaboration across the lifecycle of a customer solution. Seventy-six percent of respondents indicated current plans to invest in their supply chain, with another 20 percent anticipating including supply chain investment in later horizons of their capital plan. Only 4 percent have no plans to invest.

Supply chain factors with the greatest impact on aftermarket and field service

Connection of customer, sales, supplier development, and procurement processes



Optimizing management of product and service parts supply networks



Shift toward creating more resilient supply network for products and service parts



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

6. Omnichannel service



Redefining contact center capabilities will enable efficient operations while providing proactive support across an expanded range of support areas with an omnichannel interaction model. Eighty-three percent of respondents indicated current plans to invest in contact center modernization, with another 16 percent anticipating including contact center modernization investment in later horizons of their capital plan. Only 1 percent have no plans to invest.

Contact center factors with the greatest impact on aftermarket and field service

Improving field service performance and efficiency through improved technician scheduling, management, and enablement



Optimizing customer experience across the full-service cycle



Proactive customer service



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

7. Deployment of digital twins as service enablers



Use of information, including install base and data from connected assets/sensors, will enable manufacturers to develop and model a digital view of customer solutions and the operations they support. Eighty-five percent of respondents indicate plans to invest in digital twin. Another 14 percent anticipate including digital twin investment in later horizons of their capital plan. Only 1 percent reported no plans to invest.

Most important digital twin use cases for aftermarket and field service

Use of digital twin to support service execution



Customer access to digital twin modeling as a service



Use of digital twin for modeling and simulating solution operation and effectiveness



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

8. Intelligent analytics



Industrial manufacturers are utilizing intelligent analytics to optimize pricing, sales, quoting, service planning, and service execution. Seventy-five percent of respondents indicated current plans to invest in intelligent analytics, with another 21 percent anticipating including intelligent analytics investment in later horizons of their capital plan. Only 3 percent have no plans to invest.

Intelligent analytics factors with the greatest impact on aftermarket and field service

Optimizing customer quotes to maximize win probability and margin by applying intelligent analytics



Arming technicians and customer service representatives with analytical insights to improve service delivery



Optimizing service and item pricing by applying intelligent analytics



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

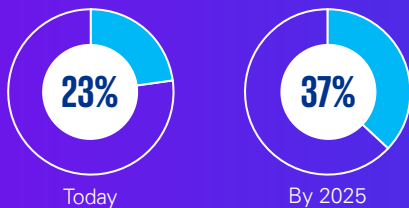


Strategic imperatives

Based on these signals of change, KPMG professionals have identified five strategic imperatives that manufacturers should focus on to accelerate and complete this shift. These imperatives include embracing the digital transformation, understanding its benefits, evolving business models, and addressing privacy and security challenges. These moves should help to enable makers of industrial equipment to respond to these forces and take advantage of new growth opportunities.

The percentage of revenue from digitally enabled services is expected to increase significantly in the next two years.

% of revenue coming from digitally-enabled services



Base: 395 customer-centric strategy decision-makers at manufacturers with aftermarket service offerings
Source: A commissioned study conducted by Forrester Consulting, June 2022

1 Embrace the digital transformation of industrial manufacturing aftermarket and field service

The digital transformation of the industry has arrived. Today, decision-makers report an average of 58 percent of their organizations' services are digitally enabled, and this number is rising—they predict that by 2025 74 percent of services will be digitally enabled. In total, they expect digitally enabled services to represent 27 percent of their total revenue by 2025, more than double the 13 percent it represents today. They expect this digital enablement to increase product sales (44 percent),

improve customer loyalty (43 percent), and improve customer insights (41 percent).

And while the groundwork is being laid for digital infrastructure, organizations admit there is still important work to be done. Decision-makers in our survey listed developing data, analytics, and AI capabilities as the top actions their organization will need to take over the next 5 to 10 years to address the changing digital aftermarket services landscape.

2 Understand the potential benefits of digitally enabled services

In addition to considering the signals of change just described, it is important to recognize the potential benefits that manufacturers can derive from digitally enabled aftermarket and field service. Based on the gains that member firms' clients have targeted and, in many cases have already realized, KPMG professionals see significant and tangible opportunities. Digitally enabled services can help boost value to the customer, in turn unlocking revenue and margin growth for manufacturers. Manufacturers will also be able to improve on current service efficiency.

Reduce the cost to serve:

Manufacturers can address service calls via lower-cost channels such as remote contact centers, equipment self-healing, or customer self-service. They can optimize technician productivity using advanced scheduling and dispatch. Further, they can implement AR, VR, and MR tools and insights based on generative artificial intelligence (AI) and machine learning (ML). These changes can unlock a variety of efficiency improvements. Through digital enablement, many service activities can be partly or fully automated or can be delivered through lower-cost channels (e.g., remote versus on-site technician). Additionally, capabilities such as predictive maintenance can reduce the number of service events. Efficiency improvements will enable manufacturers to reduce service pricing, gaining market share from competitors that lack digitally enabled capabilities and taking on service tasks from self-performing customers. Efficiency improvements can also provide opportunities for margin growth. Benefits member firms' clients have targeted and/or realized include:

20% to 30% of technician tasks delivered remotely or automatically

20% to 30% reduction in service calls

30% to 40% reduction in truck rolls

15% to 30% service part inventory reduction

Enhance service effectiveness:

Manufacturers can use digital enablement of services to reduce response/resolution times and maximize equipment performance by using connected product data to predict and resolve service needs. Through digital enablement, manufacturers can take advantage of automation, remote service centers, or technicians enabled with digital tools.

These changes offer customers greater uptime and output from the equipment they purchased. These changes can also provide customers with reduced maintenance and operating cost, and often, a longer equipment lifetime. Benefits member firms' clients have targeted and/or realized include:

50% to 60% faster response time

15% to 20% improvement in first visit repair rates

20% to 50% equipment downtime reduction

20% to 30% maintenance cost reduction

5% to 25% energy efficiency improvement

10% to 20% equipment lifespan improvement

Create new offerings:

Manufacturers can market and deliver new value-added services that drive customer value and, in turn, provide new sources of revenue for manufacturers reducing customers' total cost of ownership. Additionally, manufacturers' services can help customers with the use of and value realization from the equipment. Examples of such new offerings made possible by digitally enabled services include:

- **Automotive:** Self-driving car capabilities
- **Smart buildings:** Net-zero buildings
- **Aerospace:** Predictive maintenance
- **Industrial automation:** Remote service center support
- **Agricultural equipment:** Precision agriculture (i.e., autonomous equipment)

Grow customer lifetime value:

Manufacturers can use insights about customers, install base, and operations to optimize offers and service contracts for annuity-based revenue streams. They will be able to monetize the value they deliver to customers by selling more services over the product's lifetime, growing the margin on those services, and increasing customer loyalty to enable service renewals and further product sales. Benefits member firms' clients have targeted and/or realized include:

- **1.5 to 2X** customer lifetime value increase
- **More than 5%** net promoter score improvement
- **More than 20%** new service revenue growth
- **8% to 20%** customer churn reduction

Create new loyalty:

Manufacturers can use digitally enabled service to deliver winning customer experiences and orchestrate each interaction across the customer journey to increase revenue. Loyalty in service relationships over the course of the product lifecycle also increases the opportunity for the next product sale. Benefits member firms' clients have targeted and/or realized include:

- **More than 5%** net promoter score improvement
- **8% to 20%** customer churn reduction

3 Evolve aftermarket and field service business models

The digitization of aftermarket and field services opens the door for organizations to move beyond a traditional manufacturing business model. This allows them to evolve along multiple dimensions and even adopt separate business models for different offerings and customer segments.

Our survey indicates that manufacturers are transforming their business models along five different dimensions to take advantage of the opportunities presented by digitization of aftermarket and field services.

Revenue models:

Innovative technology and the growing prevalence of anything-as-a-service (XaaS) models are encouraging manufacturers to look for new ways to enhance revenues. Manufacturers have typically offered services on an as-needed labor and materials basis as well as under service contracts or warranties. While these models remain common, a number of new revenue and contracting models are emerging. These include subscription-based models, performance-based models (e.g., charging for equipment uptime), and outcome-based models (e.g., charging for achieved cost savings). Emerging as-a-service models

are better aligning service charges with customer value and are enabling manufacturers to take greater control of the maintenance and use of the install base they sell to customers in order to achieve the targeted improvement in performance and outcomes. In addition, manufacturers are offering asset-as-a-service payment models to complement more traditional financing models. Companies are offering many flavors and permutations of the revenue and contracting models mentioned above, enabling offers that are tailored by customer tier or by individual customer to best align with customer needs, value realization, and budgets.

As-a-service (XaaS) revenue models are designed to shift from transactional sales of product and service to annually recurring revenue (ARR) models. In fact, many manufacturer service subscriptions auto-renew by default, instead of awaiting a customer order for renewal. Manufacturers are aligning their internal metrics to reflect the emphasis on ARR. For example, 61 percent report measuring retention rate as a key metric to assess the sustainable growth of a service business.

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Market offerings:

As the capabilities and models for digitally enabled aftermarket and field service mature, manufacturers are launching new services such as autonomous equipment, net-zero solutions, AI-enabled precision operations, and healthy buildings. Manufacturers are also shifting to selling integrated offer bundles that combine product, financing, field service, remote service, training and education, advanced digital services such as cybersecurity, managed services, and service parts sales and inventory management.

Traditional service market offerings:

- Professional services
- Installation/implementation services
- On-site field service

Emerging service market offerings:

- Remote monitoring
- Remote or automated service
- Knowledge and analytics access
- Value-added (i.e., cyber)
- Managed services

Delivery models:

To meet increasing customer expectations for service experience, efficiency, and effectiveness, manufacturers are redesigning their delivery models. Increasingly, manufacturers are supplementing or replacing onsite field technician service delivery with self-service, remote support, and even autonomous equipment self-healing. Manufacturers are also optimizing their remote service operations centers, call centers, and analytics centers of excellence to best support the shift to remote and digital service delivery. Eighty-four percent of manufacturers say they are investing or planning to invest in contact center modernization. Companies cite the following as the top capabilities they are expecting from call center modernization:

- Improving field service performance and efficiency through improved technician scheduling, management, and enablement
- Optimizing customer experience (CX) across the full service cycle
- Proactive customer service

Operating models:

To deliver the customer experience, efficiency, and effectiveness required to profitably grow aftermarket and field service, manufacturers must define and build an integrated target operating model for that business. All six layers of the target operating model (functional process, people, service delivery model, technology, performance insights and data, and governance) must be designed to work together. In addition, the target operating model must span the Connected Enterprise, linking front, middle, and back office to create integrated end-to-end service value streams.

Cost models:

As manufacturers move to as-a-service models, many costs will continue to be incurred up-front, while revenues will more likely come in over the equipment's lifetime. Break even in an as-a-service model may take 3 to 4 years or more depending on the offerings. Manufacturers will need to adjust their expectations to operate in this new model, but they will have the opportunity to reduce costs of service through automation, customer self-service, better enablement of field technicians, and predictive maintenance.



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4 Drive culture and capability change

For many manufacturers, the culture and capabilities that have previously underpinned their success are not what they will need to succeed in an aftermarket and field service business that is increasingly powered by digitally enabled services.

Many manufacturers' digitally enabled service growth is hampered by competing metrics and incentives that pit traditional manufacturing business and legacy service models against those of the emerging digitally enabled service business. A particular point of tension tends to be pricing that is often set to drive adoption and growth in digital services, impacting metrics and incentives for teams responsible for products and legacy services.

61% are measuring retention rate

58% are measuring customer lifetime value

48% are measuring service attach rate

Beyond changes in measures, manufacturers are working to help their workforce adopt and adapt to the changes brought about by digitally enabled service models. For example, manufacturers are driving initiatives to help field service technicians adopt digital tools and capture field service activities and technician knowledge in service management tools.

Future-focused organizations have prioritized culture as an enabler of this change. Future-focused organizations

Organizations are finding that they need to move beyond a product-focused culture or even a culture of functional excellence. The goal should be a customer-centric culture that prioritizes customers' end-to-end experience over the metrics of any particular function. In fact, study respondents reported that optimizing end-to-end customer experience is among the top three actions they will take over the next five to 10 years

Manufacturers are evolving their metrics to better align the goals and incentives of the organization to drive growth and performance in digitally enabled services.

43% are measuring percent of install base with connected capabilities

39% are measuring percent of service delivered without human intervention

37% are measuring percent of service on subscription

reported a good or excellent ability to build a customer-centric organization and a culture that inspires people to deliver on the customer promise and drive up business performance at a rate more than 50% higher than followers.

Future-focused organizations are also differentiating themselves from followers through their investments in experience centricity by design. They report making moderate or significant investment in experience centricity by design at nearly double the rate reported by follower organizations.

5 Address privacy and security challenges

Today's manufacturing businesses are data-driven and internet-dependent, so the effective management and protection of information is essential. In Europe, the General Data Protection Regulation (GDPR) gives individuals power over the use of their personal data and holds organizations accountable for their data collection and usage practices. Similar regulations that involve the secure generation, use, and protection of personally identifiable information (PII) are in place or planned for in the U.S.

As manufacturers transition to connected products and platforms, the amount of data generated and transmitted is

increasing exponentially, and as equipment gains features such as remote servicing, remote control, and autonomous operation, the importance of data security is further elevated. Manufacturers must allow selective access to the equipment and data to their own onsite and remote technicians as well as to customers, channel partners, and other third parties. This access must be secured at the equipment panel and in service portals or other systems that connect to the equipment and the portal. A security strategy must be developed to manage the risk of intrusion and hacking of equipment and prevent breaches of the data accessible through the connected platform.

Digitally enabled services in the connected enterprise

Signals of change

Strategic imperatives

Digitally enabled services

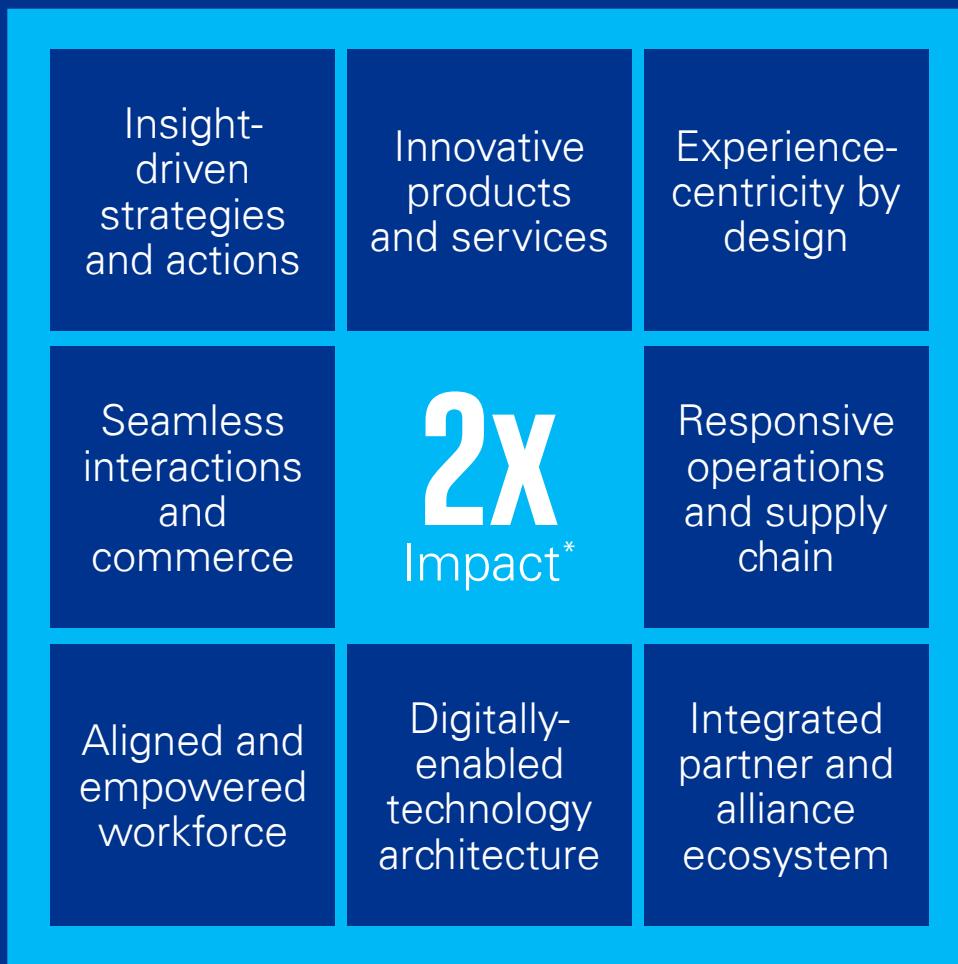
Case studies

The eight capabilities of KPMG Connected Enterprise

Manufacturers can benefit from adopting a set of fundamental capabilities to support the connected enterprise. These capabilities can help industrial manufacturers define a customer-centric approach to digital transformation that connects the front, middle, and back offices.

Enhancing these capabilities will help ensure that every process, function, and relationship of the organization is focused on meeting customer expectations, creating business value, and driving sustainable growth.

Our research shows that firms that make a moderate or significant investment in all eight capabilities of the connected enterprise are two times more likely to deliver a positive customer experience, successfully execute on one or more customer-centric objectives, and increase ROI according to one or more metric.*



*Note: Base 395 leaders involved with customer-centric strategy decisions.

Source: A commissioned survey conducted by Forrester Consulting on behalf of KPMG, June 2022.

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The following table shows how the **eight connected enterprise capabilities** can be applied to the previously described strategic imperatives:

01 Insight-driven strategies and actions	Harness data, advanced analytics and actionable insights with a real-time understanding of the customer and the business, thereby helping to shape well-integrated business decisions.
02 Innovative products and services	Develop compelling customer value propositions on price, products, and services to engage the most attractive customers and drive profitable growth.
03 Experience-centricity by design	Design seamless, intentional experiences for customers, employees, and partners, thereby supporting the customer value propositions and delivering business objectives.
04 Seamless interactions and commerce	Interact and transact with customers and prospects across marketing, sales, and service to achieve measurable results.
05 Responsive operations and supply chain	Operate the business with efficiency and agility so the customer promise can be fulfilled in a consistent and profitable way.
06 Aligned and empowered workforce	Build a customer-centric organization and culture that inspires people to deliver on the customer promise and enhance business performance.
07 Digitally powered technology architecture	Create intelligent and agile services, technologies, and platforms, enabling the customer agenda with solutions that are secure, scalable, and cost-effective.
08 Integrated partner and alliance ecosystem	Engage, integrate, and manage third parties to increase speed to market, reduce costs, mitigate risk, and close capability gaps in the delivery of the customer promise.

High-maturity organizations continue to outpace their less mature peers

Survey findings indicate that, compared with companies that lag behind, future-focused manufacturing organizations are:

2.3x More likely to harness data, advanced analytics, and actionable insights with a real-time understanding of the customer and the business to shape integrated business decisions.

2.0x More likely to create intelligent and agile services, technologies, and platforms, enabling the customer agenda with solutions that are secure, scalable, and cost-effective.

1.8x More likely to engage, integrate, and manage third parties to increase speed to market, reduce costs, mitigate risk, and close capability gaps to deliver on the customer promise.

1.6x More likely to build a customer-centric organization and culture that inspires people to deliver on the customer promise and drive up business performance.

1.5x More likely to design seamless, intentional experiences for customers, employees, and partners to support customer value propositions and deliver business objectives.

1.5x More likely to interact and transact with customers and prospects across marketing, sales, and service and achieve measurable results.

1.4x More likely to develop compelling customer value propositions on price, products, and services to engage the most high-value customers and drive profitable growth.

1.4x More likely to operate the business with efficiency and agility to fulfill the customer promise in a consistent and profitable way.

Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, June 2022

Evaluating your capability maturity

Through our research and project experience, KPMG professionals have developed a variety of assets and accelerators to support manufacturers' aftermarket and field service transformation. One key asset is a maturity model, with associated benchmarks, to help organizations assess the current maturity of their aftermarket and field service capabilities and define their target maturity levels.

KPMG professionals will work with you to shape and define your digitally enabled transformation or optimization vision, using the eight capabilities to inform and evaluate plans, prioritize the roadmap and align investments.

How connected capabilities apply in Smart Industrials

Capability	Applicability (Smart Industrials)
Insight-driven strategies and actions	<ul style="list-style-type: none"> • Leverage customer lifetime value (CLV) and voice of customer (VOC) data to better understand and anticipate customer expectations across channels. • Apply CLV principles and segmentation to enhance aftermarket services revenue. • Leverage connected product insights to make service recommendations and provide proactive service. • Use (real-time) insights from analytics across the value chain to personalize the customer journey and make faster, better-informed decisions. • Use insights from across the enterprise to optimize service delivery, operating costs, product and service part order fill rates, inventory levels, ESG, etc.
Innovative products and services	<ul style="list-style-type: none"> • Utilize VoC to inform product and service offerings. • Maximize CLV by aligning product and service pricing with the value customers realize. • Develop products with connected and software-enabled capabilities that serve as the basis for integrated solutions to maximize value and customer experience (CX) for customers and maximize CLV through attached service sales. • Develop service offerings that generate value for customers through reduced equipment TCO, improved equipment efficiency, and even improvements in customers' overall operational capabilities. Maximize CLV by sharing in those benefits and by capturing service renewals and repeat sales of service parts and products.
Experience centricity by design	<ul style="list-style-type: none"> • Use VoC to identify customer preferences and as an input to CX design. • Design an integrated customer experience across the full customer journey/relationship lifecycle, including customer interactions involving channel partners and suppliers. • Incorporate CX goals into objectives and metrics throughout the organization to drive customer centricity. • Develop a channel strategy that enables the organization to deliver on customer expectations and orchestrate consistent customer journeys profitably.
Seamless interactions and commerce	<ul style="list-style-type: none"> • Provide customers with omnichannel engagement and interaction options over the full customer journey/relationship lifecycle. • Deliver a seamless and consistent experience spanning customer interactions related to product purchases, installation, service parts, and service operations. • Create a fully integrated, consistent, digital-first customer experience across the full customer journey/relationship lifecycle (including marketing and sales, commerce, product delivery, service delivery, and billing). • Support efficient, secure, and frictionless commerce and payment interactions including shopping, buying, fulfillment, returns, and service.

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Responsive operations and supply chain	<ul style="list-style-type: none"> • Establish supply chain visibility from customers and channel partners to internal operations to suppliers to enable insights into requirements, availability, and capacity that allow for effective supply chain decisions. • Develop optimized plans for supply chain operations and service operations. Manage execution of those plans using digital systems and artificial intelligence/machine learning to achieve target performance. • Collaborate with tier 1 and tier 2 suppliers to enable on-time delivery to support manufacturing, sales, install projects, and service delivery, while minimizing inventory, operating cost, and risk of obsolescence. • Secure supply of scarce materials (e.g., chips) and plan strategically to avoid lost sales, order backlog, and negative impacts on customer service.
Aligned and empowered workforce	<ul style="list-style-type: none"> • Align talent around common strategic goals to drive transformation. • Embed a culture of innovation and agility alongside a growth mindset to foster innovation and entrepreneurialism. • Break down silos between product and service organizations and shift toward customer centricity. • Establish aligned incentives geared to maximize Net Promoter Scores, renewal rates, customer loyalty, and CLV. • Drive transformational change to ensure that the organization, operating model, and culture reflect a customer-centric, digital mindset, and agile ways of working.
Digitally enabled tech architecture	<ul style="list-style-type: none"> • Establish a cloud-native technology architecture that standardizes, simplifies, and streamlines the technology environment. • Utilize a common enterprise integration strategy, framework, and platform for integrating the organization's cloud and on-premise applications, data sources, and devices to better align processes, data, CX, and EX across the organization. • Deploy "wrapper" solutions to build new experiences on core legacy platforms and integrate with new systems and tools. • Establish an agile, product-aligned, flexible delivery model geared to customer value realization rather than package implementation projects. • Develop technology platforms that are secure by design to safeguard both internal and customer data. Ensure that solutions are compliant with applicable legal and regulatory and customer requirements.
Integrated partner and alliance ecosystem	<ul style="list-style-type: none"> • Strategically leverage channel partners to extend the organization's market reach and scale while managing channel conflict. • Provide channel partners with the enablement, support resources, and incentives to maximize service attach rates for channel product sales, optimize service delivery through the channel, and provide consistent CX that meets customer expectations. • Collaborate with market-leading technology providers in development of connected products and digitally enabled services to maximize solution capabilities, scalability, and value for customers. • Create an ecosystem of alliance partners that provides hardware or services that complement and extend your company's solutions and maximize the value to customers.

KPMG professionals have developed business and technology blueprints that represent the full set of elements that support manufacturers' aftermarket and field business. Organizations can use this to benchmark the completeness of their business and technology environments and identify gaps vs. leading practice.

Technology blueprint

Leadership enablement technology					
Data and analytics		Product and service management		Customer and employee experience	
Customer engagement			Operations		
Marketing	Sales/after sales	Order and quote	Research, design, and innovation		Supply chain
Projects	Customer support and service	Field service	Manufacturing operations	Enterprise asset management	Procurement

Business blueprint

Leading the enterprise							
Enterprise value management							
Enterprise strategy		Enterprise agility	Enterprise operational excellence		Enterprise resilience and trust	Environment, social, governance (ESG)	
Data and analytics							
Enterprise data and analytics strategy		Data management and governance	Analytics, AI, and insights generation		Continued insights delivery	Activation and continued innovation	
Product and service management							
Market research		Dynamic pricing	Strategic planning and scenarios		Product/service platforms	Product/service design	
Customer and employee experience							
Brand experience strategy		Intentional experience design	Voice of the stakeholder/customer		Experience governance and measurement	Journey orchestration	
Customer engagement				Operations			
Marketing	Sales/after sales	Order and quote	Research, design, and innovation		Supply chain		
Projects	Customer support and service	Field service	Manufacturing operations	Enterprise asset management	Procurement		
Support services							
Human resources	Finance	IT	Risk management	Internal audit	Legal	Tax	Property and facility mgmt.
Talent acquisition	Financial reporting	Ideate	Managing enterprise and operational risk	Internal audit strategy and Governance	Strategy	Returns/compliance	Plan properties and facilities
Worker on-boarding	Financial planning and analysis	Plan			Human capital/manage talent	Intelligence	Business unit support and consulting
Talent enablement	Fixed assets	Develop	Privacy and data security	Perform risk assessment	Education and awareness	Transactional tax	Operate and maintain facilities
Workforce administration	Capital projects	Build	Managing third-party risk	Develop dynamic internal audit	Idea evaluation		International tax
Payroll	Accounts receivable	Test	Managing policies	Individual project initiation	Secure IP rights		
Total rewards	General ledger	Release and deploy	Managing compliance	Individual project execution	Manage portfolio		
Time management	Accounts payable	Run/operate		Manage issues and action			
	Treasury	Monitor/improve		Project reporting			
		Manage and govern		Organizational reporting			

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Business blueprint (continued)

Enabling the enterprise				
Partner and alliance management				
Partner and ecosystem design	Partner onboarding and integration	Service delivery and governance	Integrated business services	Ecosystem orchestration
People enablement				
Workforce shaping	Workforce experience	Workforce insights	Digitally enabled learning	
Technology enablement				
Enterprise integration management	Enterprise architecture management	Modern delivery	Cyber	Enterprise service management



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Case studies and how KPMG professionals can help

Signals of change

Strategic imperatives

Digitally enabled services

Case studies



Case studies

Case study 1:

KPMG in the US recently helped a global manufacturer define the strategy, business model, financial case, and transition plan for a major digital services initiative—all within an accelerated, eight-week schedule.

Challenge:

The client's competitors had established a lead in the development of connected products, digital platforms, and digital service offerings. Voice of the customer (VOC) research for the client indicated a strong desire for smarter services and frictionless interactions. In discussions with the investor community, the client had already indicated a strong commitment to aggressive digital services growth, but the organization lacked a clear pathway to achieving its goals.

How a KPMG member firm helped:

The KPMG in the US team reviewed the current business model, service offerings, and operating model of the organization. They evaluated pro-forma field service business financials and developed a growth plan based on external benchmarks. At the same time, they developed a roadmap for implementation and value realization, and also conducted competitive/comparator market research to identify targets, benchmarks, and gaps in TOMs.

To support these activities, KPMG professionals gathered and synthesized financial data from more than 100 internal sources. They designed a global, pro-forma financial model with more than 100 tabs and presented their results to stakeholders across the business.

They also conducted competitor and comparator research, benchmarking over 20 competitor service models, areas of investment, and digital offerings. In addition, the KPMG in the US team provided ongoing guidance for executives and stakeholders to support effective transformational change.

Benefits to the client:

KPMG in the US helped the client's global service organization:

- Develop a strategy and operating model design for digital services that boosted annual services revenue growth rate by 20 percent.
- Define automation and operating model efficiencies that reduced operating expenses for digital services by approximately 15 percent.
- Identify over 50 key performance gaps and develop a roadmap with supporting initiative plans.
- Gain the buy-in of the CFO, the executive committee, and business unit leaders across products and regions.

The transformation is now led by our client sponsor with KPMG in the US supporting and augmenting the transition team in key areas where additional capabilities and/or support are required.

Case study 2:

KPMG in the US professionals worked closely with KPMG firms in other regions to help enable a target operating model (TOM) transformation for a global manufacturer's field service business.

Challenge:

The client was seeking to develop and deploy a unified, cloud-based target operating model (TOM) across its global field service business. A TOM addresses functional processes, people, service delivery model, technology, performance insights and data, and governance. The existing business was highly decentralized, with a fragmented operating model spanning over 500 legal entities. The IT environment was unsustainable and included non-standardized operations and data, more than 100 ERP platforms, and hundreds of different edge systems. This fragmentation led to poor master data capabilities, the inconsistent capture of install-base data, and disconnected silos of service data across multiple systems and businesses. Visibility of customer, project, and service profitability was severely limited.

How a KPMG member firm helped:

The KPMG in the US team worked closely with KPMG firms in other regions to develop a new vision for the global field service business spanning multiple lines of business. KPMG team members designed a common global business template for processes, roles, technology, data management, service delivery models, and governance. They leveraged leading practice processes and widely accepted, out-of-the box technology. KPMG professionals also established proper governance for master data, designed intercompany processes for integrating core manufacturing and field operations, and deployed pilots in two countries.

Benefits to the client:

The KPMG in the US team helped the client:

- Successfully adopt a global business template designed to reduce costs and streamline operations for the field service business.
- Improve margins, reduce expenses, and increase operational efficiencies, with a potential value realization of 10 percent EBITDA.
- Support IT platform integration by retiring approximately 100 ERP platforms globally and an even larger number of edge solutions.
- Enhance communication and collaboration with customers, suppliers, and sub-contractors.



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Case study 3:

KPMG in Italy professionals helped a transport and commercial vehicle manufacturer introduce advanced analytics to improve product quality and aftersales processes.

Challenge:

The client had a high loss ratio for its products, which impaired aftersales costs and resulted a reduction in customer experience. Previously, the client had focused on gathering data and conducting backward-looking reliability analysis diagnostic efforts manually at a slow pace. This approach was primarily reactive and did not generate early insights into vehicle reliability issues, also requiring a high degree of effort. In short, the client needed a better way to define its warranty process leveraging advanced analytics and enabling a data-driven approach.

How a KPMG member firm helped:

The KPMG in Italy worked with the client to develop advanced analytics capabilities designed to improve the aftersales process and draw early insights from analysis generating recommendations. The project included the development of a service analytics platform that integrates several data sources to better estimate the defectiveness and the cost of vehicle components based on product and customer features such as vehicle configuration, telematics data, mission profile, and many others. The KPMG in Italy team also created an emerging-issues control tower to automate analytics processes, boost forecasting accuracy, and enable simulation features to anticipate the issues resolution.

Benefits to the client:

The KPMG in Italy team helped the client:

- Improve accuracy of cost of aftersales analysis, resulting in a 40 percent improvement in defectiveness and cost forecasts.
- Develop the ability to detect potential emerging aftersales quality issues more than two months in advance.
- Shift toward proactive management of aftersales quality issues to improve customer experience, reducing downtime and aftersales costs.
- Increase the sale of original spare parts targeting specific clients and maximizing the profitability.
- Drive an 80 percent reduction in time spent on data extraction, data preparation, analysis, and reporting.



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How KPMG can help

Wherever you are on the digital services journey, KPMG firms can help your organization move with confidence into the new reality of digitally enabled services. KPMG firms combine deep industrial manufacturing and business process experience with extensive technology integration experience. KPMG firms also bring tax expertise needed to develop digital centers of excellence to deliver operating model tax savings in a digitally connected aftermarket and field service transformation. This holistic and integrated approach allows us to help our clients design solutions and respond to industry challenges with speed, agility, and scale.

Backed by an industry-leading approach to enterprise-wide transformation, KPMG professionals can assist you through the following service offerings:

1 Digital services strategy

The Digital Services strategy helps clients reshape their aftermarket service business model and growth strategy to take advantage of connected products and platforms, technology innovations, and market transition to XaaS. Outputs typically include definition of the service offerings, contracting and revenue models, and strategy for transitioning

from transactional product and service sales to an XaaS recurring-revenue model. In addition, the strategy typically defines the required changes in customer and channel partner relationships. KPMG works with clients to define their Digital Services strategy and the financial opportunity associated with the new model.

2 Business and operating model transformation

To adopt a digital services strategy, manufacturers must often redesign their current operating model, creating a Connected Enterprise that integrates front-, middle-, and back-office operations for aftermarket and field service. This entails making changes to all six elements of the operating model (functional process, people, service delivery model,

technology, performance insights and data, and governance). In addition, manufacturers must develop a range of new capabilities. KPMG professionals help clients identify business and operating model gaps and improvement opportunities and implement aftermarket and field service transformation initiatives

3 Technology enablement

Technology innovations such as connected products and platforms, cloud services management solutions, machine learning, and digital twin solutions are key to enabling new aftermarket and field service models and delivering winning customer experiences and required operational efficiency and effectiveness improvements. KPMG professionals help manufacturers define the technology architecture needed

to support the aftermarket and field services business, and customer experiences. KPMG professionals also help manufacturers improve their existing technology environment, implement cloud-based aftermarket and field service technology solutions, and develop advanced machine learning and other data and analytics capabilities.

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Transformation never stops. Neither do we.

At KPMG we believe that business transformation is too good an opportunity to miss. Combining the right tech and the best processes with people whose insight is as broad as it is deep, are essential ingredients to successfully transform. KPMG has worked at the heart of global businesses for many decades, helping our clients realize the full potential of their people and technology and working together to achieve real-world outcomes. Because when people and technology are in harmony great things happen.

Making a world of difference:

KPMG people can make all the difference on your transformation journey. Together we can help you to orient your business around the customer, optimize functions for a new era, manage enterprise risk and regulation for a safer future, rise to a new level of value creation, and create an environment for managing ongoing change.

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