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Making the most from your i4.0 investments

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The pressure on companies to adapt and compete in the era of Industry 4.0 (i4.0) is tremendous. The advanced technologies that underpin the fourth industrial revolution—including artificial intelligence, the Internet of Things, robotics and big data—are fundamentally transforming the traditional value chain by opening new revenue streams and driving a sea change in business performance.

While many aerospace and defence (A&D) companies are investing in i4.0 capabilities and technologies, not all achieve the scale and integration required to drive full enterprise value from their i4.0 investments. To fully unlock the transformative potential of i4.0, more companies need to apply i4.0 capabilities across all aspects of their operation. This article addresses the steps leaders in i4.0 are taking to narrow the gap between executive ambition and transformative action by taking a more integrated approach.

Move boldly and think holistically

Organizations which take a structured approach to prioritize and roadmap the best return on their i4.0 investments are more successful at moving from one-off,

targeted implementations to full-scale adoption across a holistic framework.

What are leading industrial manufacturers doing to drive i4.0 adoption and create value? *KPMG's Beyond the Hype* report offers a realistic perspective on the current state of i4.0 adoption and readiness based on in-depth benchmark discussions with global manufacturers. The best practices of leaders who are making the most of their i4.0 investments are outlined below.

Strategy: Focusing on performance

- **Develop business-aligned strategies and roadmaps.** View i4.0 as a strategic advantage and an opportunity for competitive differentiation; have a clear understanding of the impact on financial and business models; and create strong alignment between investments and corporate strategy.

- **Assess 'time to value' on i4.0.** Management, shareholder and customer expectations for payback may be at odds with the reality of 'time to value'. Focus on implementing concrete, short-term measures to realize value from i4.0, including reductions in your costs of goods, order lead times and inventory levels.

- **Support decisions with the right measurements, monitoring and reporting.** Look at new data sources and KPIs in order to visualize the cross-enterprise benefits from a holistic rollout of i4.0 investments. Rather than focusing on pure ROI, assess other potential value drivers, including performance outcomes, impact on innovation and improved

collaboration, which influence organizational performance.

Value: Scaling up

- **Focus on breaking down silos.** Work across R&D, purchasing, operations, and sales and marketing to identify opportunities for collaboration and mutual value generation. Engage in cross-border work aimed at creating an integrated i4.0 landscape, while also integrating customers' perspectives into core processes.

- **Improve the agility of your IT infrastructure.** Facilitate the integration of i4.0 processes and gauge the potential process impacts across the wider organization.

- **Think holistically about the interdependencies.** Take a more strategic view of the related impacts and potential consequences of i4.0 initiatives. Develop the necessary competencies across the enterprise and within the value chain, while also considering the impacts of i4.0 projects on financial and business models.

Change: Managing the impacts

- **Think carefully about future capability requirements.** Consider which competencies would be necessary to support future i4.0 solutions and start embedding these considerations into the strategic roadmap. Update talent strategies and partner with outside organizations to diversify recruitment pools.

- **Drive the change agenda.** Create robust change management plans and think carefully about the people, governance and cultural impacts of decisions. Proactively communicate with employees to raise awareness, engagement and confidence, and articulate and execute on a clear vision for the future.

- **Focus on value, not cost.** Approach i4.0 as an opportunity to improve value and performance, not as a cost and headcount reduction initiative. Invest in training and redevelopment of employees to enjoy growth without adding headcount, and shift resources to more value-add tasks.

Products: Smart products and smart processes

- **Use product data to improve end-to-end value.** Use both customer data and field data from products to improve the way products are designed, developed and manufactured. Focus on improving and prioritizing the reliability and relevance of customer data sources, and formalize data ownership frameworks and security.

- **Improve integration between customers and products.** Use smart products to drive stronger relationships with customers and see i4.0 as a basic requirement for improved customer communication. Where it makes sense, connect customers to suppliers and product development through the cloud.

- **Move from products to services.** Understand the significance of D&A and see the potential to leverage product and customer data to create "data as a service" which can help drive additional revenue. The most advanced organizations are moving into predictive solutions, using analytics capabilities and deep product knowledge to provide additional insights to customers.

Supply chain: Enhancing i4.0 value

- **Focus on integration.** Move quickly to integrate suppliers and customers into a demand-driven supply chain. Building an interconnected network is the key to future competitive advantage.

- **Create the right environment.** Assess both the opportunities and risks of greater value chain integration; use sensors to predict various supply chain integration; and improve controls to reflect increased cyber security and data privacy risks.

- **Look for new opportunities to drive performance.** Rethink traditional supply chains and networks to eliminate unnecessary processes and remove waste. Work collaboratively with suppliers to identify new ways of working and streamline existing processes.

With these steps now top of mind, are you ready for a whole of enterprise approach to i4.0? It's time to review your own state of readiness, or risk being left behind.

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