



# Harnessing technology convergence

Lessons from smart manufacturers

# KEY TAKEAWAYS

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# Introduction

Technology has long been fundamental to building competitive advantage — by reducing costs, enhancing has become abundantly clear that no single technology, no matter how powerful, is proof against disruption and of creative destruction maintains its current pace, half of the companies that currently comprise the S&P 500

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companies to adjust rapidly to disruptions in the supply after automakers placed microchip orders on hold at the beginning of the pandemic as demand for vehicles dropped sharply, semiconductor manufacturers pivoted, redirecting production to address the huge spike in demand for chips aimed at the laptop, gaming

chipmakers lacked spare capacity to meet the demand automobile chips halted the production of more than order to comprehensively review

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- 1 Anthony, S., Viguerie, S., Schwartz, E., & Van Landeghem, J. (2017, November). *2018 Corporate Longevity Forecast: Creative Destruction is Accelerating*. Retrieved March 24, 2021.
  - 2 Campbell, P. (2021, April 28). *Semiconductor shortage to halt mini production in Oxford*. Retrieved April 29, 2021.
  - 3 Wang, Y. (2020, February 25). *Smart manufacturing, logistics to help Baosteel maintain steady output*. Retrieved March 24, 2021.





meshing of other technologies; second by enhancing

and supporting

## **Enabling the Foundation**

Quick and reliable transmission of data between devices is foundational to the autonomous

devices provides greater operational visibility

This makes for greater safety, quality control, and granular traceability, which in turn enable more

monitored during assembly, enabling a relatively

## More

underscores its value across a range of industries, including the pharmaceutical and food and beverage

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is enabling pharmaceutical companies to provide

molecule that can be calibrated to correct and



# Emulating Smart A Look Ahead

medical devices,

of

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16 Pacific Research Laboratories. (2020, September 08). *Understanding the history of 3d printing in medicine*. Retrieved March 24, 2021.

17 Joshi, N. (2019, September 9). *How Machine Vision Can Transform Financial Services*. Retrieved March 24, 2021.

18 Space1. (n.d.). *AR, MR, VR for Rail Industry*. Retrieved March 24, 2021.

19 AMFG. (2020, October 01). *3D Printing and Mass Customisation: Where are we today?* Retrieved April 19, 2021.

20 DHL. (2014). *Augmented Reality in Logistics*. Retrieved April 19, 2021.

Exhibit 2: Value derived from leveraging complementary technologies

CAPABILITY AND  
UNDERLYING  
TECHNOLOGIES

DESCRIPTION

VALUE FOR  
BUSINESS

Business Priority: Product/Service Leadership

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## Challenges

questions

the potential fallout of increased technological

multiple vendors to ensure that new technologies

regularly

it requires training employees to manage new technologies, as well as communicating with suppliers and distributors to facilitate supply chain integration and

Ongoing maintenance and enhancements should

created by these convergent technologies require

frameworks and processes must be augmented to

another,

# Managing the Transition

## Protecting Privacy

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24 Smith, B. (2020, December 18). *A moment of reckoning: The need for a strong and global cybersecurity response*. Retrieved March 24, 2021



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30 Hariharan, K., & Phan, L. (2021). *Recharging Employee Engagement*. Marsh McLennan. Retrieved May 20, 2021.

31 Warszona, B. (2020). *HR's Increasingly Important Role in Cyber Risk Management*. Marsh McLennan. Retrieved May 20,

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