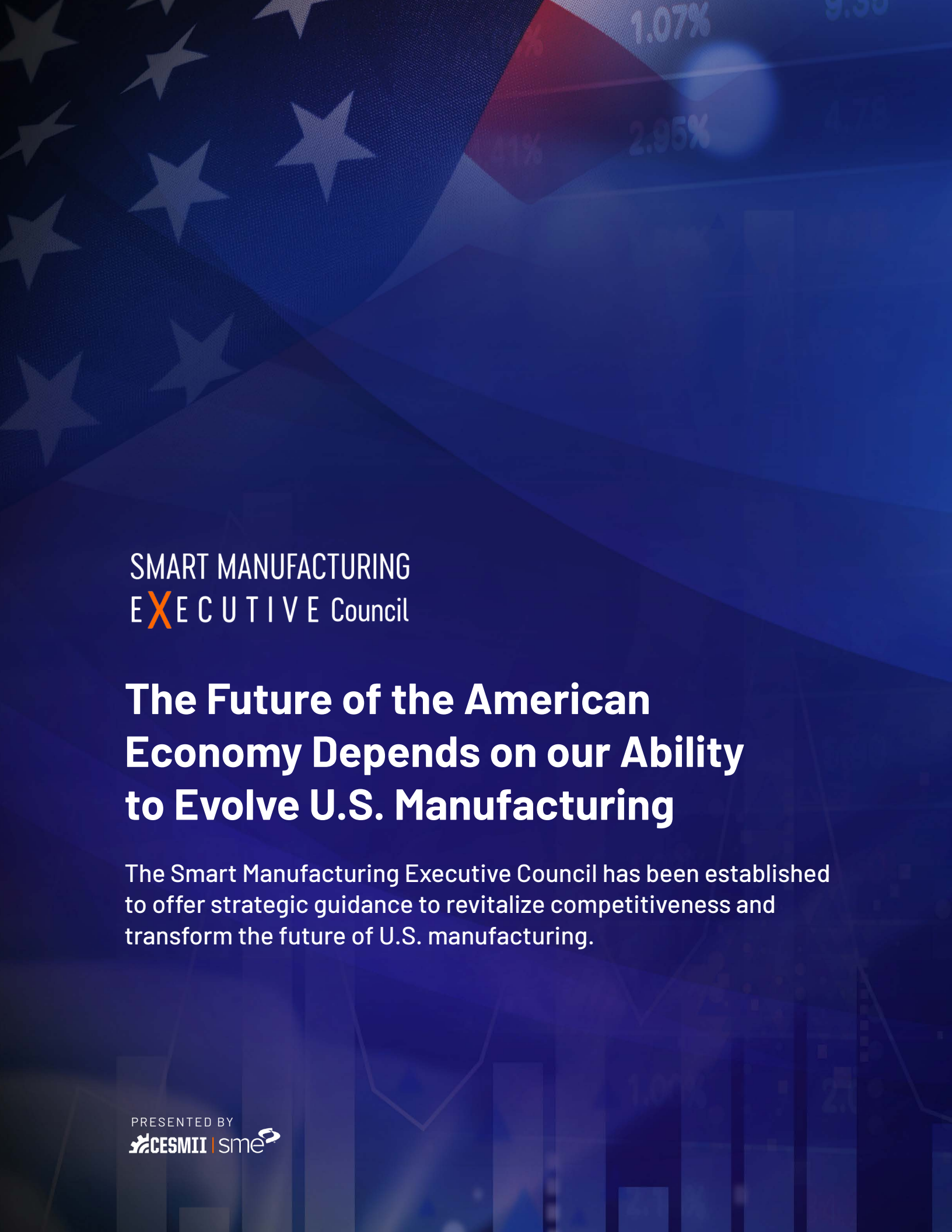

SMART MANUFACTURING
EXECUTIVE Council

The Future of the American Economy Depends on our Ability to Evolve U.S. Manufacturing

The Smart Manufacturing Executive Council has been established to offer strategic guidance to revitalize competitiveness and transform the future of U.S. manufacturing.

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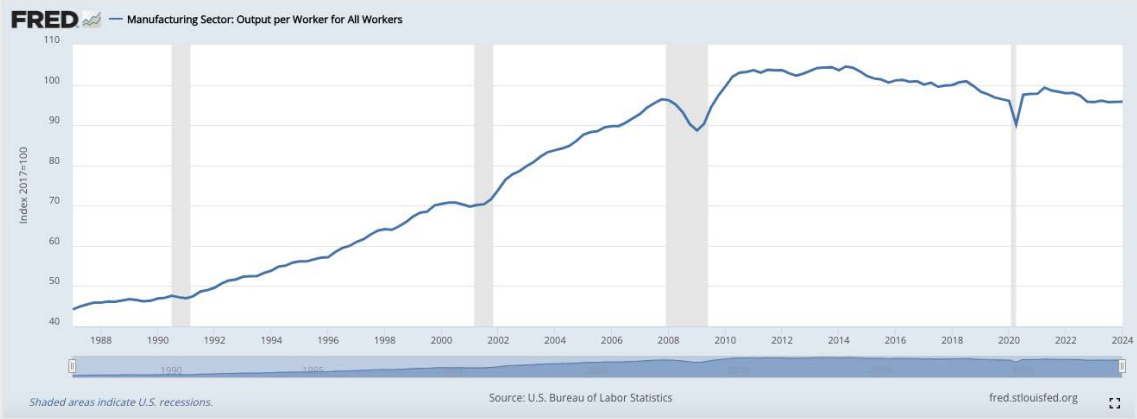
Just over 100 years ago, manufacturing invented the middle class. The United States led the charge and quickly became the world's factory. This transformation resulted in economic prosperity, millions of technical jobs, and laid the educational and practical foundation for today's technological wave.

Fast forward to today and many consider China a strong contender in the race for technology dominance, with other emerging economies not far behind. As a result, there's a growing sense of urgency to improve U.S. manufacturing productivity, competitiveness, and resilience, underscored by the reality that, for the first time in recorded history, the past decade has revealed an unprecedented flattening, and even decline in our manufacturing productivity (by worker).[1]



In order to spark the necessary change for American manufacturing to recharge the U.S. economy, a group of industry leaders have come together to form the Smart Manufacturing Executive Council (SMEC). The primary charter of the SMEC is to Strengthen the U.S.' Competitiveness Through Smart Manufacturing. This group is led by CESMII, the Smart Manufacturing Institute, a non-profit organization funded by the U.S. government, along with SME, the non-profit dedicated to advancing manufacturing for nearly 100 years.

How?

The era of digital transformation has revolutionized commerce, entertainment, travel, finance, and many other services sectors. In manufacturing, however, investments in digital transformation have yielded improvements, but meaningful transformation has not yet been achieved.

Smart Manufacturing is the information-driven, event-driven, efficient, and collaborative orchestration of business, physical and digital processes within plants, factories, and the entire value chain. It represents the true digital transformation for a manufacturing organization.

Despite widespread industry mantras about the need to invest in the 4th Industrial Revolution (Industry 4.0) and Smart Manufacturing capabilities, manufacturing companies have struggled to realize impactful business outcomes at scale. Very few have or are executing a strategic plan to leverage the digital capabilities that have made America the leading technology superpower.

[1] FRED Manufacturing Sector: Output per Worker for All Workers.

Leaders across sectors believe the 4th Industrial Revolution can be the silver bullet that will usher in a new era of productivity and value creation. While this is achievable in principle, it's important to appreciate that the transition of the manufacturing ecosystem from one era to the next has historically been challenging. Balancing short term shareholder pressure and financial metrics with longer term innovation, the key tenets of manufacturing are to reduce waste and variation while optimizing risk—endlessly chasing greater efficiency, quality, and safety. Innovation requires both waste and risk. These opposing forces have contributed to many manufacturers being stuck and/or not finding the right balance to allow them to move forward. Therefore, revitalization of U.S. manufacturing productivity, and innovation through digital transformation is real, but still aspirational.

The vision for the Smart Manufacturing Executive Council directly addresses these needs. Representing all manufacturing industries and sizes, the goal is to shine a spotlight on the opportunity to accelerate manufacturing productivity and value creation and ultimately reclaim America's leadership position in manufacturing. Unlike other efforts to achieve similar results in the past, this group is made up entirely of manufacturers, steeped in the 24x7 operational challenges and opportunities that beset the industry. The SMEC has convened to assert and affirm the promises of Smart Manufacturing and is creating an industry-wide playbook with the goal of realizing these promises:

The Five Promises of Smart Manufacturing

	Manufacturers Promise	U.S. Economy Impact
1	Attract, Empower and Retain the Workforce of Today and Tomorrow	A New Generation of Stable, Middle-Class American Jobs – Fueling the Availability of Labor for Manufacturing and the Changing Needs, Demographics, and Expectations of Technicians of the Future
2	Uncompromising Customer Focus	A Nimble, Data-Driven Framework Responding to Demand Signals and Informing Capital Deployment Strategies
3	Risk Mitigation and Optimization - Safety, Quality, Productivity	Manufacturing Productivity Returning to Double Digit Growth, Empowering the National Security Imperatives of a Vibrant Domestic Manufacturing Industry
4	Structured Innovation and Transformation, Driving Speed to Market	Economic Boost to U.S. GDP and Manufacturing Competitiveness
5	Profitably Achieve Sustainability and Circular Economy Goals	Reduce Energy and Carbon Impact of Manufactured Goods While Sustaining Jobs and Value Creation

As the U.S. sees glimpses of Smart Manufacturing promises becoming reality, it's clear that there is an urgent need to ensure that all manufacturers are able to access and engage in executing toward these promises. We need an ecosystem approach to narrowing the growing divide between those that can harness the value of Smart Manufacturing (large manufacturers) and those for whom the current cost and complexity have rendered it largely inaccessible (most small and medium manufacturers). For the U.S. to be globally competitive, the ability to scale and execute digital transformation is critical.

Through the leadership of the SMEC, today U.S. manufacturing is being reimagined to capitalize on the opportunities that are possible with Smart Manufacturing. This new mindset is still taking shape and will require a robust strategy with a clear vision to connect capabilities (technology, processes, and people) to future revenue and growth. Ultimately, a fundamentally new ecosystem, fit-for-purpose in the 21st Century and the era of Artificial Intelligence and cyber security, will drive economic and societal prosperity for the United States.

[2] About the Smart Manufacturing Executive Council

Smart Manufacturing Executive Council Members

Kelly Aronson	Antoine Dhennin	Larry Megan	Alpen Patel
Venu Pilla	Dave Krivan	Craig Sutton	Habib Quazi
Scott King Mike Bastian	Lisa Zasada	Jeffery Abell	Jon Hobgood
Steve Glor	Ken Creasy	Maria Araujo	Anthony Huffman
Audrey St. Onge	Matthew Laing	Jesus Flores-Cerrillo	Chris Micena
Don McCartney	Brian Perlstein	Jeff Kent	Rick Van Dyke
Mike Tomasco	Kelly Dodds	Brendan Mullins	John McKenzie
David Hinkler	Trever White	Rachelle Howard	

To learn more about the SMEC, please visit the **CESMII website.**