



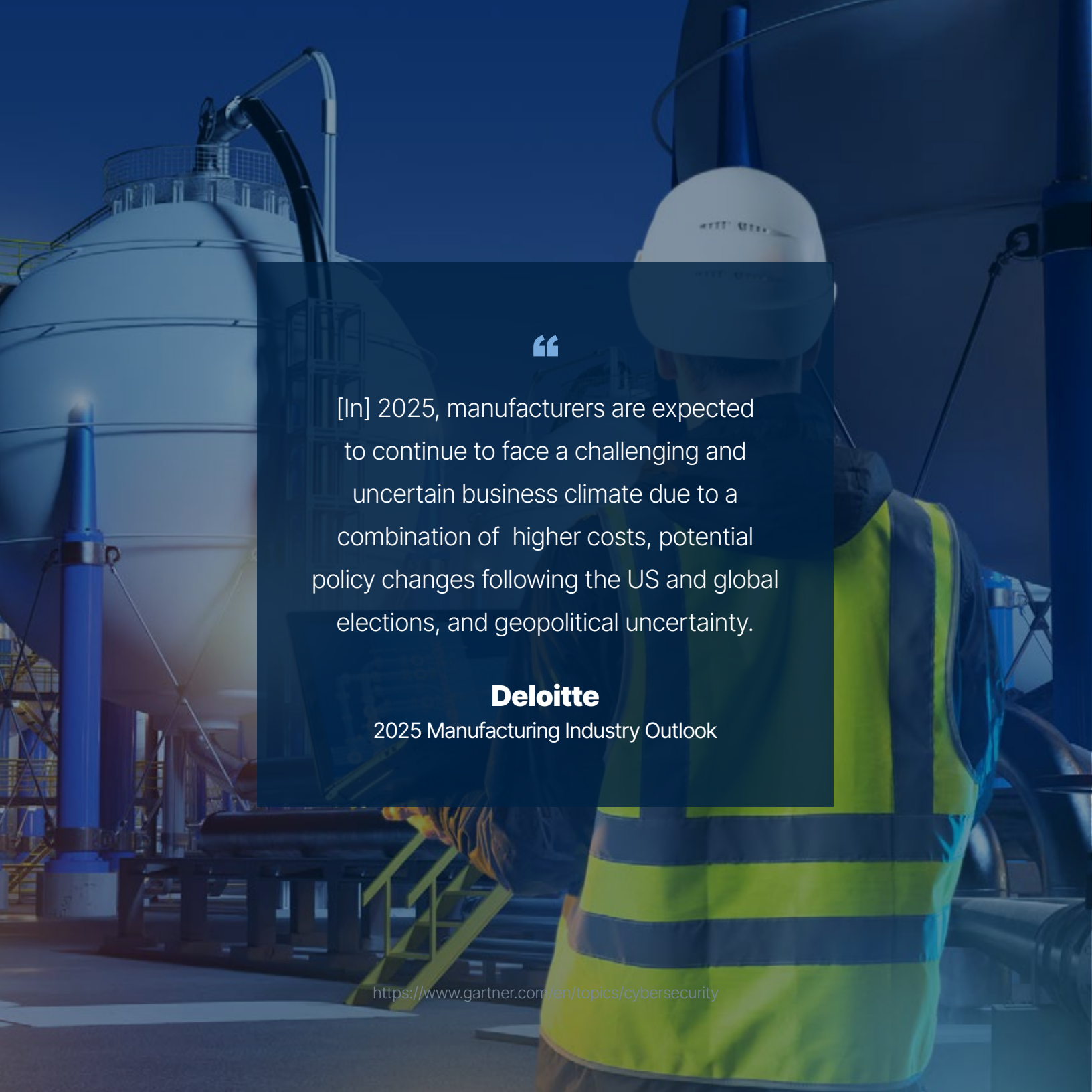
STRATEGY BRIEF

Let's Talk About Risk: **A Manager's Guide to** **Operating in an** **Uncertain Environment**

Strategies to Reduce Your Financial,
Technical, and Operational Risk

April 2025





[In] 2025, manufacturers are expected to continue to face a challenging and uncertain business climate due to a combination of higher costs, potential policy changes following the US and global elections, and geopolitical uncertainty.

Deloitte

2025 Manufacturing Industry Outlook

<https://www.gartner.com/en/topics/cybersecurity>



Let's Talk About Risk



In today's volatile political and economic environment, U.S.-based companies are facing a complex array of risks that threaten operational stability, profitability, and long-term resilience.

From supply chain instability to cybersecurity threats and the growing impact of tariffs, the landscape demands a proactive and strategic approach to risk management.

This paper explores key risks impacting the manufacturing sector and provides practical recommendations for how a strategic mix of people, process, and technology can be leveraged to mitigate these challenges and drive operational resilience.

We hope you find it useful.

Kevin Hannigan
CEO
InflexionPoint

Operators Today Are Facing A Perfect Storm of Risk

As operators, we understand and accept that some amount of risk — financial, technological, and operational — is always part of the equation.

In today's environment, however, we are seeing unprecedented levels of uncertainty and risk, due to a convergence of factors. From inconsistent policy to underlying economic headwinds and rapidly evolving technology, the current environment presents a 'perfect storm' of risk. What should you be watching out for? Here are the most prevalent and impactful risks.

1. Supply Chain Disruptions

Geopolitical tensions, trade restrictions, pandemic aftershocks, and cyber incidents.

2. Labor Shortages and Skills Gaps

Aging workforce, pandemic-related shifts, and inadequate training pipelines.

3. Regulatory Uncertainty

Evolving environmental laws, new trade agreements, and fluctuating labor regulations.

4. Inflation and Energy Costs

Global energy market volatility, material price spikes, and inflationary pressures.

5. Cybersecurity Threats

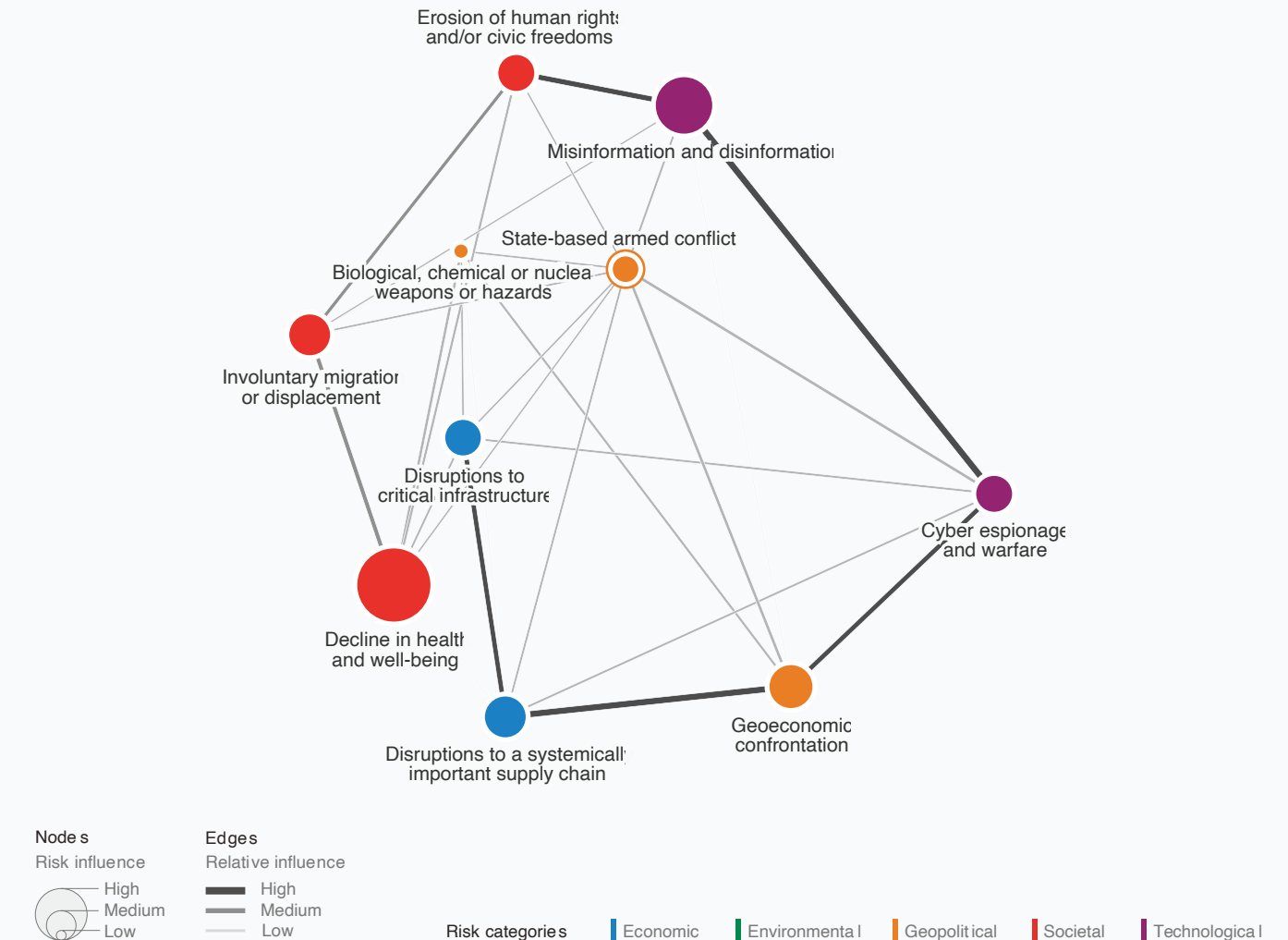
Rise in ransomware attacks, increased connectivity of smart devices, and aging legacy systems.


6. Tariffs and Trade Policy Volatility

Increases in the cost of imported materials.
Disrupted supply chain planning due to abrupt policy changes.

World Economic Forum: Top Risks 2025-2027

This chart presents top risks, their influence, and relationships, as identified by respondents to the World Economic Forum's Global Risks Perception Survey, which brought together over 1,000 global leaders across academia, business, government, international organizations, along with the risk specialists who form the Global Risks Report Advisory Board, the Global Future Council on Complex Risks, and the Chief Risk Officers Community.





“
Despite ongoing geopolitical uncertainty,
the future of operations in 2025 is promising.
Companies that lean into technology,
cross-functional collaboration, and
curiosity can power up productivity.”

McKinsey

McKinsey Talks Operations
March 11, 2025

Risk: Supply Chain Disruption

Drivers

A number of factors have played a role in undermining the reliability of global supply chains:

- Geopolitical tensions
- Trade restrictions
- Pandemic aftershocks
- Climate-related events
- Cyber incidents

Impacts

These disruptions can cause damage that ripples across the entire operation:

- Delay production schedules
- Increase the cost of raw materials and components
- Cause inventory shortages

Recommendation: End-to-End Supply Chain Visibility

Implement digital tools that track materials and products across the supply chain. AI algorithms can analyze transportation, production, and inventory data in real-time to identify potential delays and trigger proactive responses.

Technologies

- IoT sensors
- RFID tagging
- AI-powered logistics software

Benefits

- Improved forecasting accuracy
- Reduced lead times
- Proactive risk management

Risk: Labor Shortages and Skills Gaps

Drivers

Even in this era of automation, labor is a key input to operations. Managers face a number of challenges:

- Aging workforce
- Growing complexity of manufacturing technologies
- Insufficient investments in training and education

Impacts

Labor shortages and gaps can cause significant disruption to operations, including:

- Reduced productivity
- Increased strain on existing employees
- Longer onboarding times
- Difficulty scaling operations

Recommendation: Smart Automation and Robotics

Automate repetitive or hazardous tasks to free up human workers for more complex operations. Use AI to monitor quality in real time.

Technologies

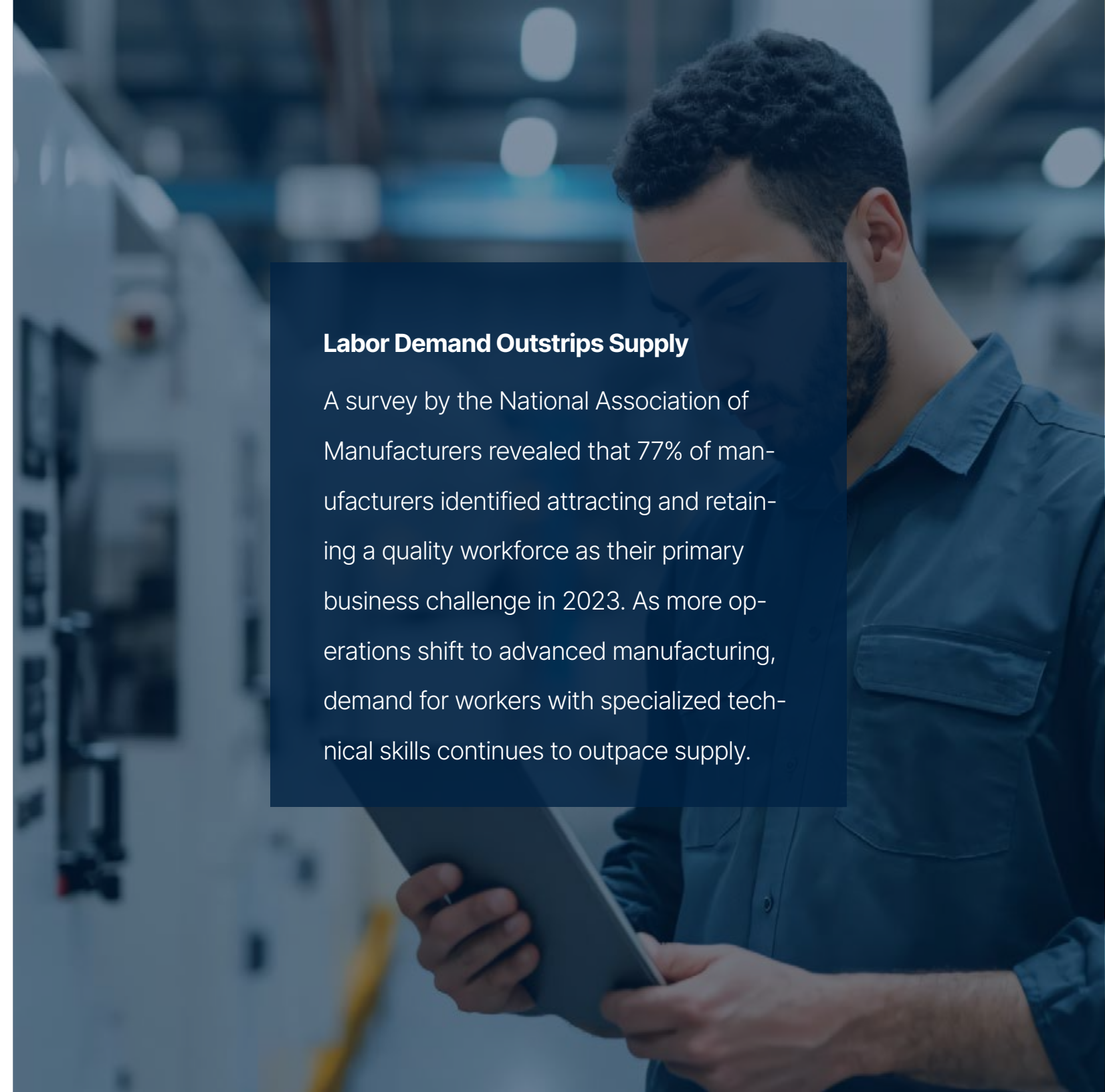
- Cobots (collaborative robots)
- Automated guided vehicles (AGVs)
- Machine learning-powered defect detection

Benefits

- Lower labor dependency
- Reduced error rates
- Consistent product quality

Labor Demand Outstrips Supply

A survey by the National Association of Manufacturers revealed that 77% of manufacturers identified attracting and retaining a quality workforce as their primary business challenge in 2023. As more operations shift to advanced manufacturing, demand for workers with specialized technical skills continues to outpace supply.



Risk: Regulatory Uncertainty

Drivers

The regulatory environment is evolving rapidly in areas such as:

- Environmental sustainability
- Labor practices
- Product safety

Impacts

Companies must invest more in monitoring and reporting. And non-compliance can result in:

- Costly fines
- Product recalls
- Halted operations
- Reputational damage

Recommendation: Compliance and Risk Management Platforms

Digitize compliance documentation, implement automated alerts for upcoming regulatory changes, and centralize auditing information.

Technologies

- ESG compliance software
- Digital documentation systems
- Workflow automation platforms

Benefits

- Streamlined compliance efforts
- Reduced manual oversight
- Enhanced audit readiness



Uncertainty is the enemy of investment.
Manufacturing is capital-intensive.
We need a clear, actionable, multistep
strategy from our government —
one that says, 'We want you to invest
here, hire here, and succeed here.'

Jay Timmons

President and CEO,
National Association of Manufacturers

Risk: Inflation and Energy Costs

Drivers

Inflation can severely impact the cost structures of manufacturers.

Drivers include:

- Fluctuating global energy markets
- Material shortages
- Supply-demand imbalances
- Tariffs, taxes

Impacts

These costs directly squeeze profit margins and may force companies to take a number of steps in response:

- Raise product prices
- Reduce workforce
- Cut back on innovation and expansion plans

Recommendation: Predictive Analytics for Energy Management

Use predictive tools to simulate future energy needs and model scenarios involving raw material cost fluctuations.

Technologies

- AI forecasting engines
- Digital twins
- Energy optimization software

Benefits

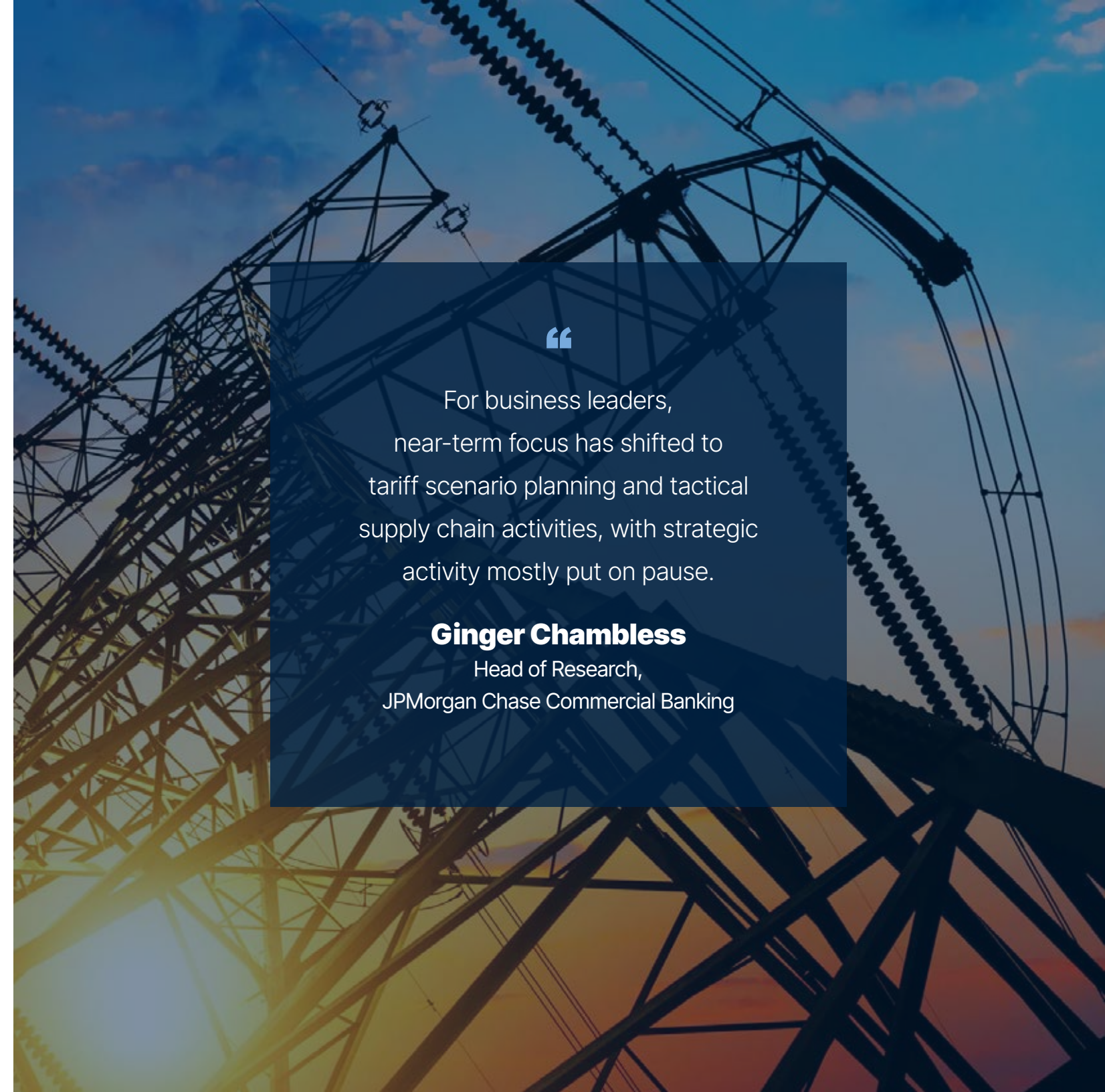
- Improved budgeting
- Reduced waste
- Stronger financial planning



For business leaders, near-term focus has shifted to tariff scenario planning and tactical supply chain activities, with strategic activity mostly put on pause.

Ginger Chambliss

Head of Research,
JPMorgan Chase Commercial Banking



No Operation is Safe from Cyberattack.

Prepare Accordingly.

The 2021 ransomware attack on JBS, a major meat processor, disrupted operations and required a ransom payment, underscoring the growing threat cyberattacks pose to physical production and supply chains. The cyber threats have only grown since then.

System HACKED

Risk: Cybersecurity Threats

Drivers

Operations today have more points of vulnerability than ever, including:

- Smart factories and connected machinery
- Outdated IT and OT systems
- Lack of trained personnel

Impacts

Attackers targeting operational technology (OT) systems can cause serious harm, including:

- Data breaches
- Production downtime
- Legal liabilities

Recommendation: Cybersecurity and IT/OT Convergence

Integrate IT and OT security, perform continuous threat monitoring, and implement strong access controls for all endpoints.

Technologies

- Network segmentation
- Zero-trust frameworks
- Threat detection platforms

Benefits

- Reduced risk of data breaches
- Minimized disruptions
- Better compliance with industry security standards

Risk: Tariffs and Trade Policy Volatility

Drivers

Operators historically could afford to give little attention to tariffs, as they were seen as a limited tool. Today operators must pay close attention to a number of factors:

- Shifts in US trade policies
- Bilateral trade tensions
- Retaliatory tariffs

Impacts

Our economy relies on global trade. Any change to policy can have significant impacts, including:

- Higher input costs
- Lack of access to needed markets and goods
- Inability to plan and invest

Recommendation: Dynamic Tariff Modeling with AI

Use AI-driven platforms to simulate different tariff scenarios and model their potential impact on sourcing and production costs. This supports agile decision-making in procurement and pricing strategies.

Technologies

- Digital Twins for supply chain modeling
- Real-time trade compliance monitoring
- Predictive analytics

Benefits

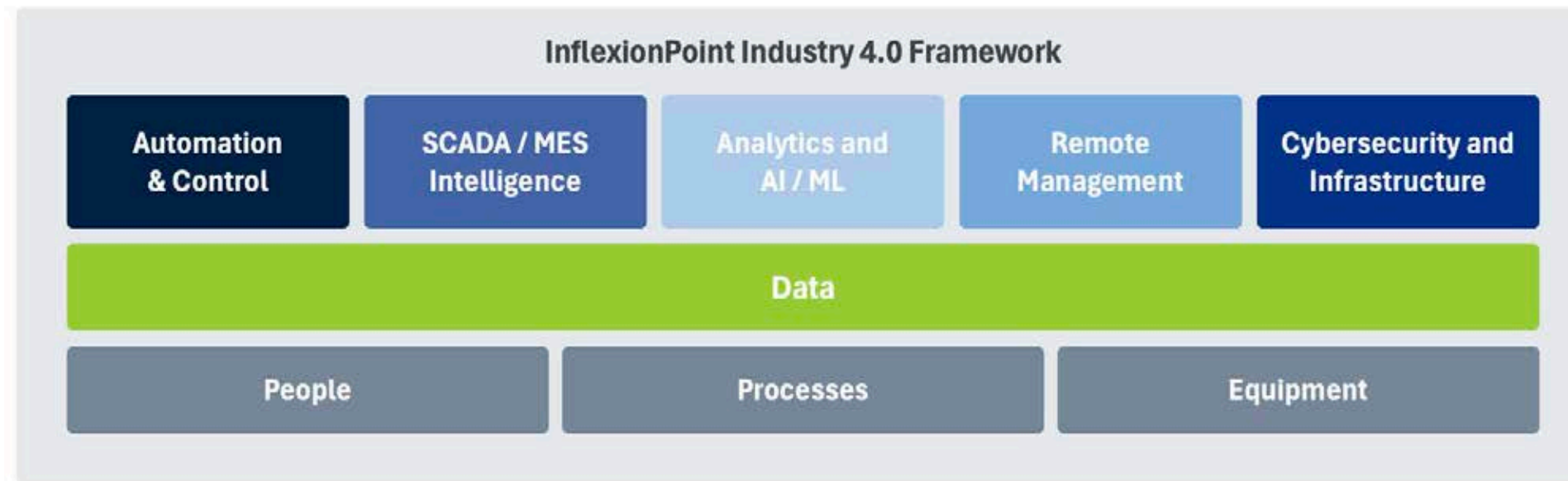
- Simulate financial and logistical impacts in a variety of scenarios
- Automatically track updates to tariffs, policies

Trade Tensions Escalate

Unless they are rescinded, the steep tariffs on a wide range of materials and goods from suppliers worldwide will significantly raise input costs for manufacturers across sectors—from automotive to consumer goods. Companies face significant, immediate increases in costs and must explore alternate suppliers and markets.

Operating in an Uncertain Environment Requires Courage, Careful Planning, and Controlled Execution

To remain competitive and resilient, U.S.-based manufacturers must embrace technology not just as a tool for efficiency, but as a strategic lever for risk management. By integrating smart technologies across operations—from supply chain monitoring and automated compliance to predictive analytics and cybersecurity infrastructure—manufacturers can navigate today’s uncertainties with greater agility, insight, and confidence.



Delivering on the Promise of Operational Excellence

We help you run more efficiently and effectively through the deployment of integrated systems that are built upon a secure infrastructure to safely harness the full power of automation, data, and AI.

Your Goals. Our Guidance.

Shared Success.

Proactive, data-driven operations is the culmination of a multi-stage journey. We pursue an incremental approach that fits your company's capabilities and goals.

From production management, supply chain operations, MES/MOM, to automation systems, we help you transform the way you operate, by breaking down silos and creating a connected ecosystem. The result is a streamlined workflow, more informed decision-making, and unparalleled efficiency that propels you toward your strategic goals.

- ✓ **Predict future demand**
- ✓ **Optimize resources**
- ✓ **Foster long-term growth**
- ✓ **Adapt to new challenges**
- ✓ **Improve sustainability**
- ✓ **Attract and retain talent**



Plan and Execute Your Industry 4.0 Journey at Your Pace
The Digital Maturity Model forms the basis for your technology investment roadmap, allowing you to make investment decisions within the context of a proven process.

Looking for a Risk Management Partner?

Look No Further.

It's one thing to talk about risk. It's quite another to execute on an operating plan, day in, day out. We have the skills and services to help you manage risk and achieve your Operational Excellence goals — allowing you to focus on what you do best.

- **Strategy:** digital transformation; process mapping; secure by design
- **Automation:** PLCs; HMI; SCADA; batch processing; building automation
- **Intelligence:** MES; analytics; AI; compliance; quality
- **Infrastructure:** IT-OT convergence; networking; cybersecurity; industrial workstations
- **Managed Services:** remote monitoring and management; staff augmentation; support



www.inflexionpoint.ai



info@inflexionpoint.ai