



We accelerate, promote and grow Indiana's advanced manufacturing and logistics industries.

Brad Rhorer – Chief Talent Programs Officer

Workforce Challenges post pandemic

Workforce Challenges - agenda

- Retirement Wave
 - 2025 and beyond... or is it happening now?
- Work Ethic
 - Incoming workforce
- Gen Z
 - The disconnected generation.
 - What to expect?

Retirement Wave

2019

- 12.8 mil mfg jobs
- Avg age 44.1
- 25% 55 plus
 - Or 3.1 mil

2025

- 12.8 mil mfg jobs
- Avg age 44.1
- 36% 55 plus
 - Or 4.6 mil

2019 – September

- 158.47 mil employed
 - 5.46 mil unemployed
- =
- 163.93 mil participating

2020 – September

- 147.8 mil employed
 - 12.28 mil unemployed
- =
- 160.08 mil participating

Retirement Wave

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- Avg age 44.1
- 25% 55 plus
 - Or 3.1 mil

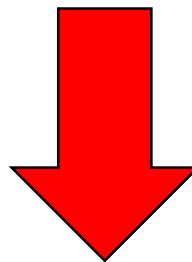
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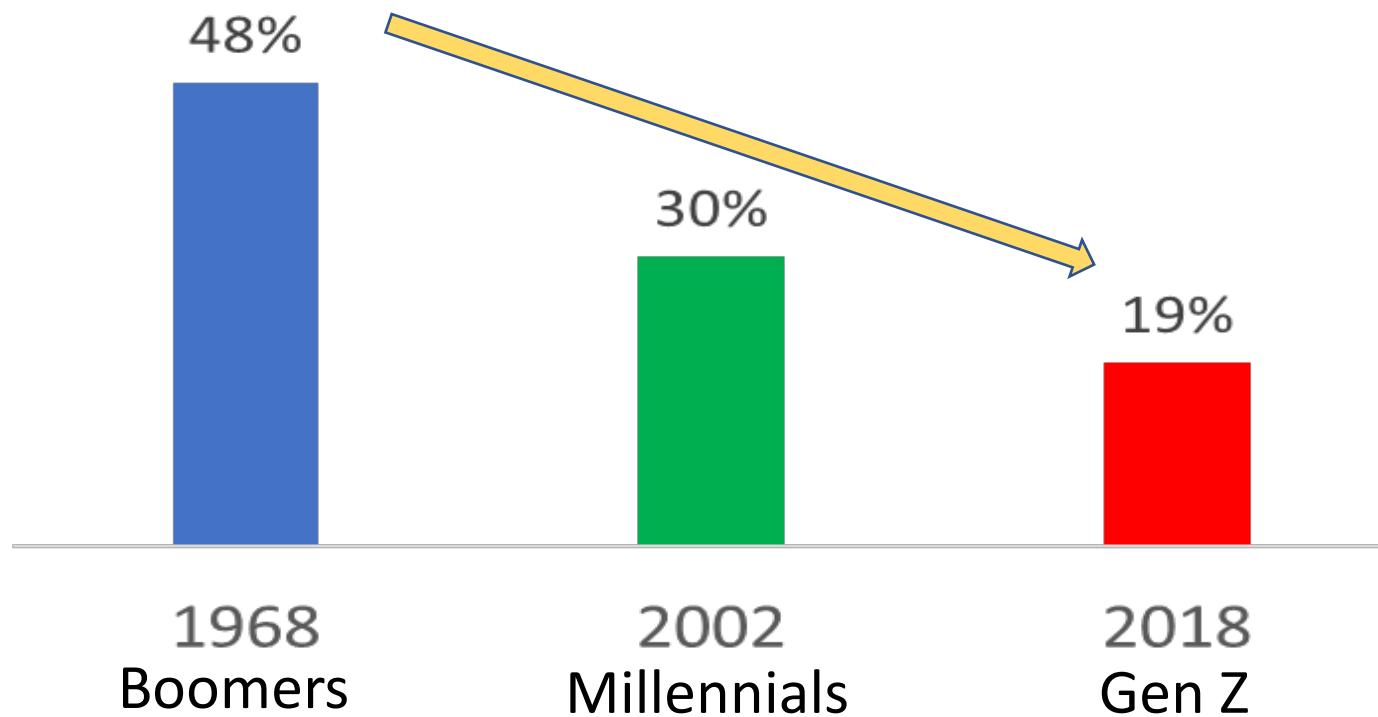
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- =
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3.9 million



Work Ethic – Entering workforce with less experience

15 to 17-year-olds reported working



Gen Z (8 to 23-years-old)

Disconnected Generation

- 27% report mental health as fair to poor
- 81% report money and work as a significant source of stress (64% for other adults)
- 30% of high school graduates leave without a plan (Indiana 25k)

What to Expect

- Highly adaptable
 - 80% cutting edge tech.
 - 91% tech influence job choice
 - 80% monetary gains w/ tech
- Diverse and Values Orientated
 - Honesty, reliability and commitment
 - Most diverse generation
 - Dedicated workers

The Journey of Data Analytics

AMEND

The AMEND Story

2005

Founded by Craig Todd & David Velie

AMEND is an acronym of founders' children

Focus: Operational Excellence for local manufacturers

2010

Organic growth to 10 team members

Increased regional presence & multi-site initiatives

Focus: Solving complex operational projects with analytics

2016

Rapidly expanded capabilities

Solve complex problems inside each mid-market business function

Focus: Strategy, BI Practice, Sales, Operations, Supply Chain

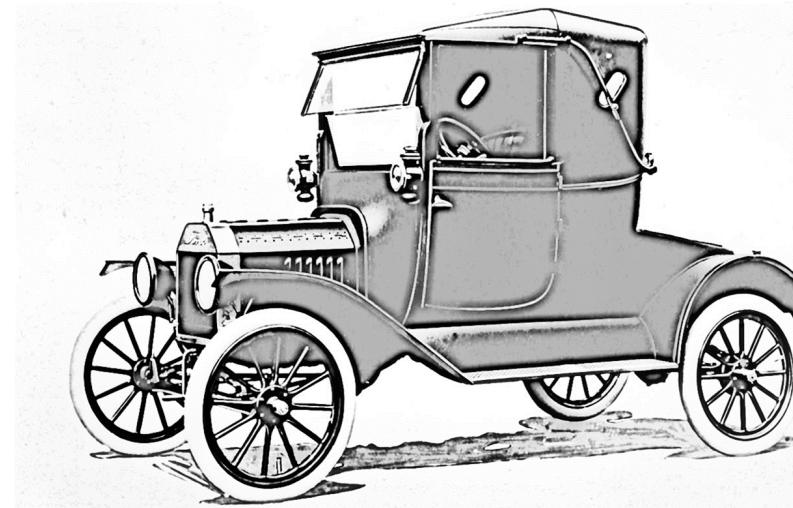
2017

Founded AMEND Ventures

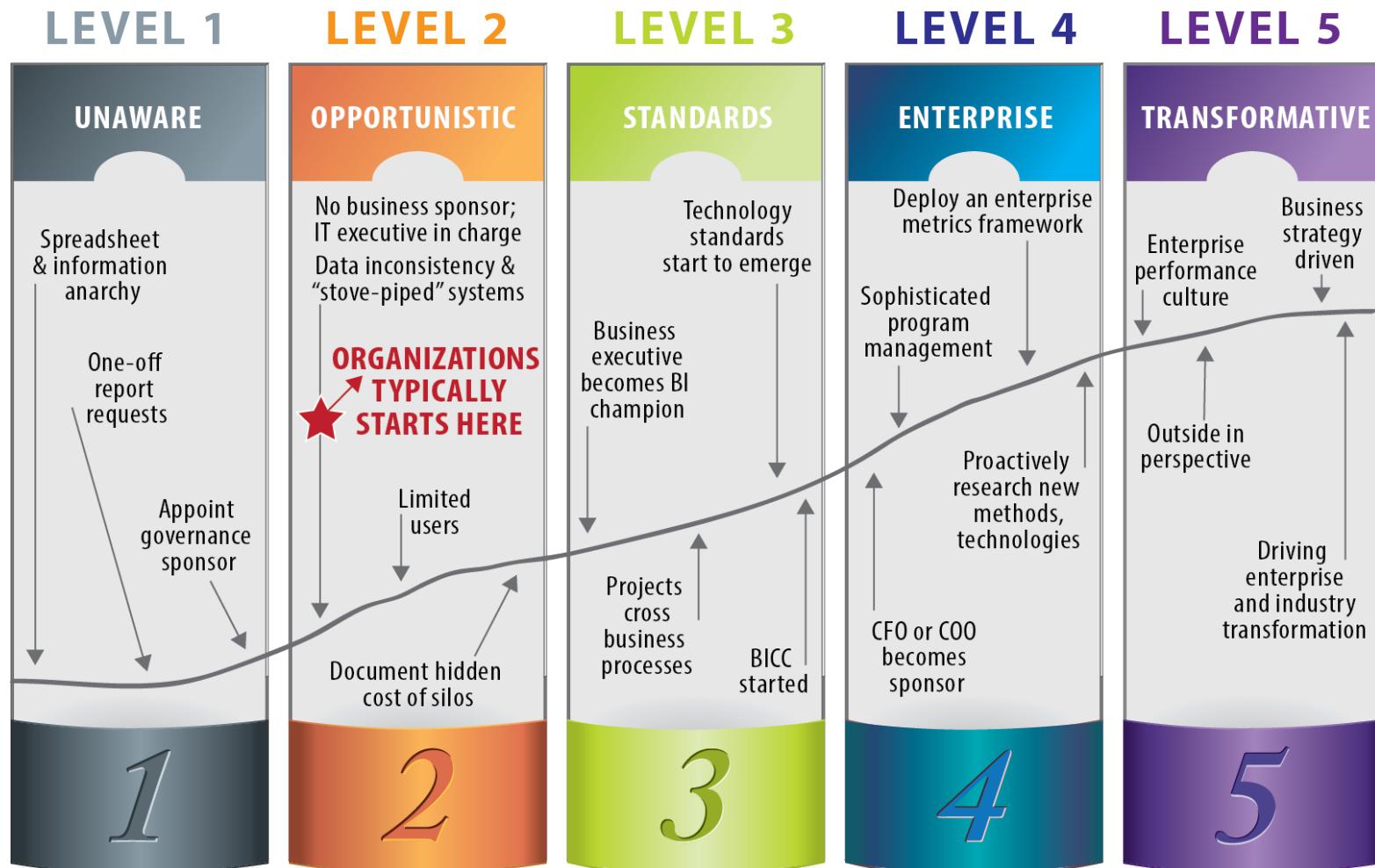
Sweat equity firm leveraging talent across multiple direct investment opportunities.

Focus: Partner with management teams to drive rapid growth

**If you don't know what you don't know,
how can you ask for it?**



THE BI Maturity Model



Source ~ Gartner 2010

Diagnosing the Current State

What do we usually find?

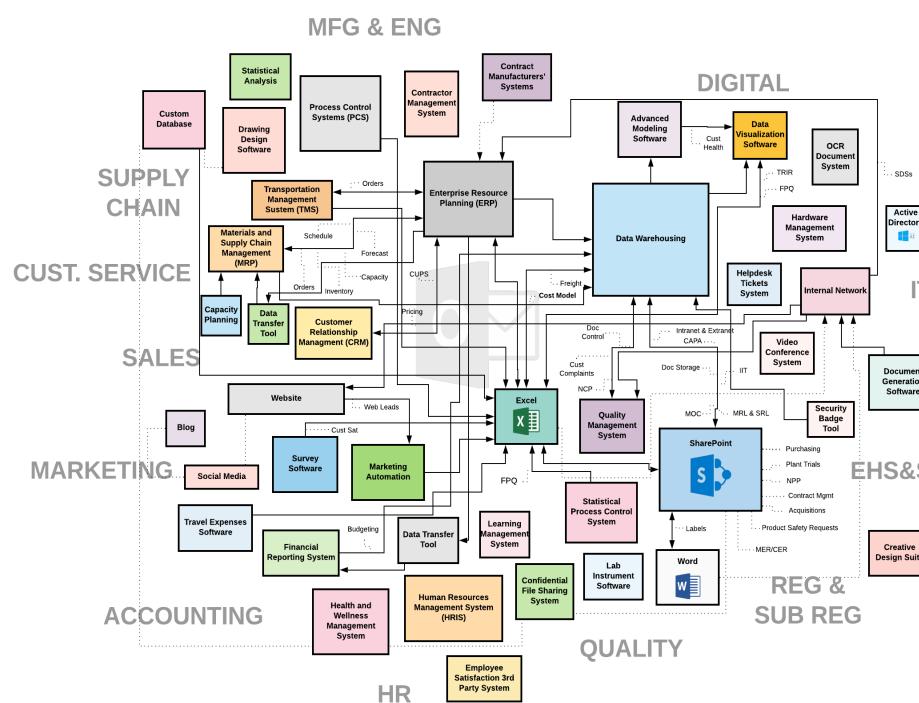
1. Tribal knowledge of issues
2. Monitoring problems without identifying (much less solving) the root cause
3. Treating symptoms wastes time and money

Our Top Priority: Solve the right problems in the right order

How Business Intelligence Fosters Sustainability

Increase the speed of your leader's decision making with data analytics:

- Ability to build reports highlighting specific KPIs from multiple systems and data inputs to create a single-source of truth for your information
- Once reports are built, there is no to very little IT maintenance required
- Becomes the underpinning of all EBITDA drive and Digital Transformation projects
- We have built tools for all kinds of departments, types of businesses, PE firms, and more



Example of a Microsoft Power Bi Dashboard showcasing KPIs. This is how we visualized the data that previously only existed in multiple sources like the image on the right.

CASE STUDIES

Case 1: Establishing a Single Source of Truth Using Business Intelligence

Case 2: Breaking Assumptions: Building a Customer Retention Model

Case 3: What's Your Risk? Understanding Churn

More case studies and dynamic BI reporting examples can be found at amendllc.com

Opportunity:

- Business was underperforming to what AMEND and company leadership thought it should be performing at
- The organization had many "reports" but little actionable information
- The organization had many people spending time analyzing data and arriving at different results

Delivery:

- Reengineered the order-to-cash process
- Built and deployed enterprise-wide automated dashboards and reporting (including customer-facing reports) to create a **single-source of truth** for all KPI's.
- Created a tool to automate and optimize their production schedule
- Designed and developed the org chart to enable growth and talent development
- Implemented various process improvements on the shop floor, targeting throughput and waste
- Performed Customer and SKU Analysis and Rationalization

Case Study 1: Establishing a Single Source of Truth Using BI

Profile

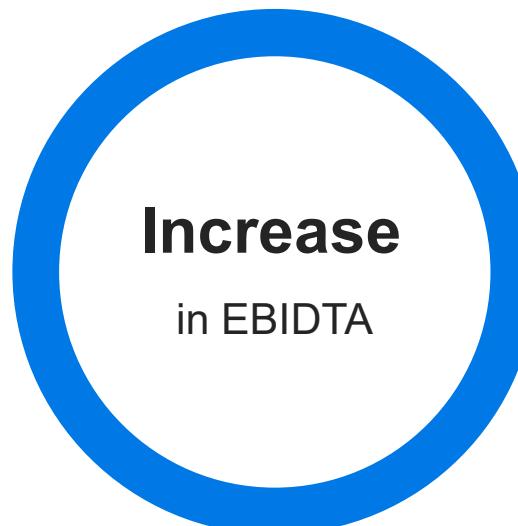
- Labeling Manufacturer
- \$30MM business

Landscape

- 100MM+ unique products made-to-order
- 100+ unique orders processed per day

Results

- BI work enabled management to focus on other priorities
 - BI work became the catalyst for most process projects
 - Org Chart development enabled sustainable growth of the business
 - Process Improvement and Customer / SKU Rationalization ultimately increased Gross Margin and EBITDA
-



Case Study 2: Breaking Assumptions: Building a Customer Retention Model

Profile

- Industry: Software & Technology
- Privately-held
- \$290 MM Revenue

Landscape

- Customers spanning various industries, sizes, and geography.
- One of the country's largest payroll service software providers

Opportunity:

Customer retention was decreasing year-over-year for a SaaS company. While our client had assumptions about their customers, they knew their subscription-based revenue model could benefit from a customer retention evaluation.

To align with their 2020 planning, our client engaged AMEND to validate their hypotheses for customer retention and to develop a model to predict customer retention.

Delivery:

- Validated client's list of "churn" assumptions using **single-variable testing**.
- Created a **machine-learning model** that highlights key attributes about customers that could be indicative of a higher likelihood of leaving the client. We were able to apply this output to historical financial data to **create projections for 2020 Annual Recurring Revenue**.
- To readily populate our model's analysis, AMEND developed a proof-of-concept dashboard for customer service and sales representatives. The dashboard can monitor the individual customer portfolios to **better address customers who are "at-risk" of leaving**.

Results:

4.6MM

Est. gross loss reduction

100%

Analyzed "Risks and Impact" Retention Relationship

Strategy

Developed Strategic Roadmap for 2020 Customer Retention

Opportunity

- Opportunity to improve net member growth
- Broad product suite with a needed understanding of value to them
- Opportunity to identify new markets and target demographic

Delivery:

- Built a Power BI dashboard that is utilized by several departments in the organization including client services, sales, finance, and marketing **to target retention opportunities, determine retention strategies, standardize practices, and set budgets.**
- Developed a churn probability model that leverages usage, interaction and sales data by member and product type to predict the likelihood of churn for each member, each year.

Results:

Planning

Set appropriate net member growth goals

Metrics

Effectively tested retention metrics and identified retention risk

Budget

Implemented a budgeting strategy for new target development

Case Study 3: What's Your Risk? Understanding Churn

Profile

- Nonprofit HR services
- Member-driven business model with 1,000s of members



Thank You!

Craig Todd, Partner
AMEND

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APPENDIX

Meet the Owners

“The AMEND team is jam-packed with smart, talented people who push you to think bigger and do more. I would put any member of the AMEND team up against anyone from McKinsey, any day, because I know they'd win.”
– COO \$75MM Manufacturer, former top tier strategy consultant



Craig Todd
Partner



David Velie
Partner



Bobby Smyth
Partner



Paul Delaney
Partner



Geoff Marsh
Partner



Matt Murphy
Partner

[Plus a team of 35 more >>](#)

Why AMEND?

- Our mission proudly states: we are an elite force of **trusted advisors** improving lives, transforming businesses and bettering our community. We do what we love with the people we love.
- Our impact: we **value transparency** in projects and are driven by a dedication to doing right by your organization.
- Our reputation: **getting things done**. We are on the shop floor and partnering with your team. We don't just tell you that what you need to improve or change. We jump in with you.



Our Approach



Our mission states that we “transform businesses.” What does that mean?

We believe transformation cannot *only* involve people, or processes, or metrics.
You can't just focus on one or two of these areas.

All three of these pieces work together to make and sustain meaningful changes in organizations.

Mid-Market Industries Served



CONSTRUCTION



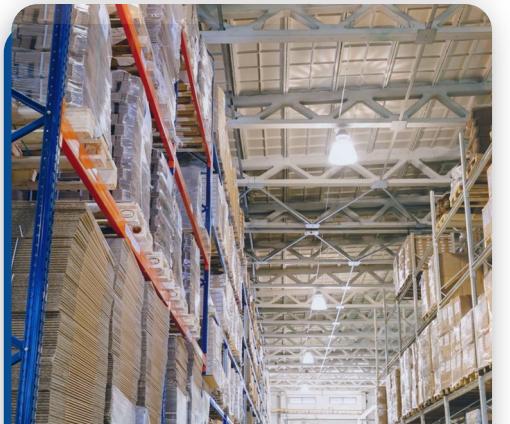
DISTRIBUTION



SPORTS



HEALTHCARE



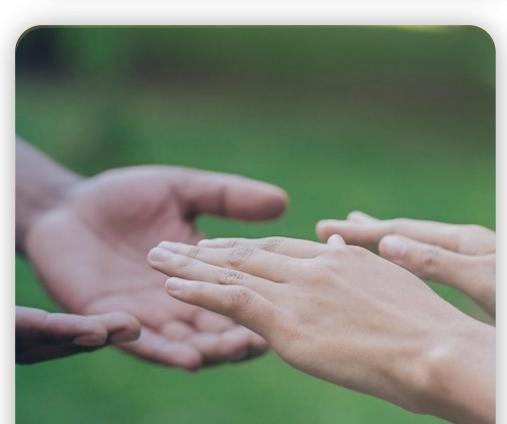
MANUFACTURING



LOGISTICS &
TRANSPORTATION



PROFESSIONAL
SERVICES



NON-PROFITS

Selection of Partnerships



GASLIGHT



Hill-Rom®



The United States
Playing Card Company

Givaudan®



Mubea



University of
CINCINNATI



AMEND Capabilities & Offerings

Operational Excellence

- Growth Management
- BPI/Process Reengineering
- Supply Chain Optimization
- EBITDA Optimization
- Business Turnarounds
- M&A Due Diligence
- Strategy Deployment

BI & Advanced Analytics

- Sales & Operations Planning
- Advanced Planning & Scheduling
- Cost Analysis
- Product/Customer Mix and Profitability
- Business Process Automation
- Portfolio Monitoring and Reporting

Digital Transformation & Technology

- Digitalization
- Digital Strategy
- Systems Evaluation
- Data Architecture
- Workflow Automation

Training

- Lean/Six Sigma
- Hoshin Kanri
- Microsoft Power BI
- Strategic Communication (DISC)
- Leadership & Change Management
- SQL (and other analytics tools)



How to Identify and Address Int'l Supply Chain Challenges

Kai Bitter | November 12, 2020

HBR on Globalization

The Harvard Business Review wrote the following a few weeks ago:

The economic turmoil caused by the pandemic has exposed many vulnerabilities in supply chains and raised doubts about globalization. Managers everywhere should use this crisis to take a fresh look at their supply networks, take steps to understand their vulnerabilities, and then take actions to improve robustness. They can't and shouldn't totally back away from globalization, doing so will leave a void that others—companies that don't abandon globalization—will gladly and quickly fill. Instead, leaders should find ways to make their businesses work better and give themselves an advantage. It's time to adopt a new vision suitable to the realities of the new era—one that still leverages the capabilities that reside around the world but also improves resilience and reduces the risks from future disruptions that are certain to occur. (Willy C. Shih, <https://hbr.org/2020/09/global-supply-chains-in-a-post-pandemic-world>)

Other Factors Impacting Global Supply Chains

Many companies learned over the last few years that their supply chain is more affected by global disruptions than they had anticipated

- C19 pandemic will continue to cause unpredictable disruptions
 - U.S.-China trade war could continue
 - Travel/immigration restrictions
 - Customers are pushing for second sourcing strategy
 - Political pressure to increase domestic production and employment (but customers still want low prices)
-
- Supply chains need to become more resilient without weakening their competitiveness
 - Managers need to understand their vulnerabilities and then decide on a strategy

Evaluate Your Ability to Perform

- Determine key relationships/contracts
- Consider the broader impact of supply chain disruptions:
 - Impact on general operations and financial results
 - Liquidity levels to weather disruptions and deal with other crises and
 - Understand how to operate if there is a prolonged disruption

Evaluate Your Supplier Exposure

- Determine key suppliers (including tier-1 and tier-2 suppliers) of critical parts and materials that may have trouble performing contract obligations
- Communicate with affected suppliers to:
 - Analyze their production issues, including the likely duration
 - Determine the amount of available excess inventory or safety stock
 - Get higher priority for critical parts and materials and
 - Understand suppliers' strategy for business continuity
- Check the availability of substitute parts or alternative supply sources
- Determine ability of shippers, carriers, and other logistics providers to deliver supplies and goods

Evaluate Your Customer Exposure

- Analyze which customers may have a change in demand
- Determine any:
 - Supply/purchase commitments
 - Customer relationships that have strategic priority
- Monitor customers' solvency
- For customers at risk of default, consider if any remedies are available, such as demanding adequate assurance of performance, stopping goods in transit, or reclaiming delivered goods
- Make contingency plans for order cancellations

Stabilize and Improve Your Supply Chain (1 / 5)

- Proactively engage with suppliers and customers to stabilize supply chain to
 - understand their crisis preparation and business continuity plans
 - protect long-term relationships
- Work with suppliers and customers to:
 - find business solutions for (past and current) legal issues and
 - increase chances of resolving future disputes efficiently and successfully
- Protect your reputation

Stabilize and Improve Your Supply Chain (2/5)

- Accelerate the onboarding of new suppliers
- Make sure to have the necessary equipment, tooling, materials, and technology - including the right to use (and perhaps sublicense) a supplier's intellectual property - to transition to another supplier
- Review transportation options that may help avoid potential delays or unavailability of logistics providers
- If appropriate, reallocate resources and shift production to products with the highest economic and strategic value

Stabilize and Improve Your Supply Chain (3/5)

- Support key suppliers facing operational and financial challenges, such as by:
 - Accelerating payments
 - Making short-term loans
 - Acquiring a position in the supplier's existing debt
 - Making an equity investment
- Protect key customers by, for example:
 - waiving penalties for order cancellations
 - providing extended payment terms or
 - offering flexible pricing models

Stabilize and Improve Your Supply Chain (4/5)

Train employees to:

- look for warning signs of supply chain issues and
- follow company procedures to escalate any disruptions or non-performance notices they receive from suppliers, customers, and other business partners

Stabilize and Improve Your Supply Chain (5/5)

- Learn from past disruptions to put supply agreements in place and update and improve existing ones

thank
you



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