

Rapid Response

A pragmatic approach to
maintaining supply chain resilience
in times of uncertainty

Navigating the human and business impact of COVID-19

March 2020

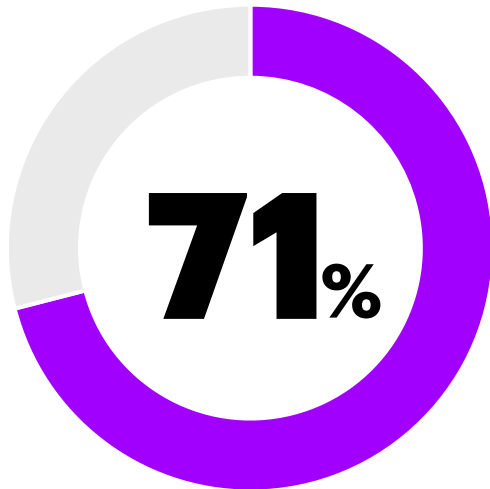


Most supply chains are underprepared

Coronavirus risks are overwhelming the virtual lifeline to humanity.

The scale of the impact on supply chains eclipses anything most companies have anticipated. Global epidemics like COVID-19 ranked low as a focus for risk mitigation efforts, per a survey of supply chain leaders.¹

For low-probability, high-impact “black swan” events like a global pandemic², standard risk models fall short. As a result, most companies do not have contingency plans in place, leaving supply chain executives scrambling to respond.



of companies surveyed do not have a business operations contingency plan in case the outbreak lasts longer than a few weeks³

WHAT is needed to rapidly and effectively mobilize my organization?

HOW do we recognize the most critical impacts to our customers, people and business?

WHAT data and analytics are required to measure and inform the insights to our action plan?

HOW does our action plan account for the characteristics of our supply chain?

WHAT needs to change in my operations to ensure ongoing agility and resilience?

The impact on the value chain is **significant**

Global **value chains** are being severely impacted along all dimensions. Built for efficiency, today's supply chains cannot be easily switched to a state of effectiveness and responsiveness, especially in a time of stress where customer and product segmentations are changing so rapidly. And the biggest challenges may be yet to come.

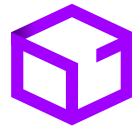
Examples of challenges across the value chain:



Suppliers

Significant challenges in distributing supplies, e.g. quarantine and trade restrictions.

Consumers concerned with traceability and source country of products.



Manufacturing

Factories in quarantine, production plants totally shutdown.

Production challenges due to lack of raw materials availability.



Logistics

Travel restrictions including airports, roads, trains and ports.

Extra time for potential special screening and cleaning of shipments.

Market closures.

Carriers suffering shortage of drivers / driver man-hour restrictions.



Sales

Consumers shifting demand away from stores to online and prioritizing 'need' vs. 'want' purchases.

Stores are closed or have shortened hours, with mass inventory depletion due to panic purchases.



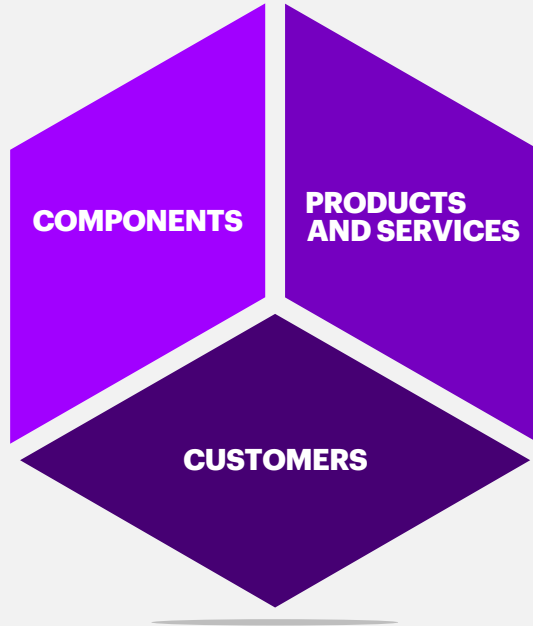
People

Quarantine measures cause labor shortages and temporary unemployment.

Workers preferring to stay/work from home or in quarantine and those in service industries unable to do so.

Concerns over people's health causing a reduction in productivity.

Different supply chains, different impacts



To address the effects of disruption such as COVID-19, companies must recognize the unique characteristics and capabilities of each **component** within their supply chain to optimize holistically.



Further, companies must understand the distinct relationships between these supply chain components and the characteristics of the **products and services** they provide to address the complexity in their portfolio.



Finally, companies must consider the relationship between these products and services and their **customers** to serve the broad array of unique needs.

Network	Partnerships	Suppliers
Facilities	Equipment	Workforce
Technologies	Systems	Data

Discrete	Bulk / Liquid	Labor Intense
Consumable	Perishable	Regulated

Segments	Channels	Markets
Demand	Profiles	Critical Needs

Supply chains differ **across** industries and companies. But they also differ **within** companies, where supply chains are made up of multiple threads, each defined by its unique product portfolio and fulfillment network. Segmenting by these archetypes is a vital step in addressing disruption.

COVID-19 will not wait

Action plans must begin now

WITHIN 1-WEEK

Establish command center and begin rapid response deployment

- Establish turn-key cross-functional command center, leveraging elastic digital workplace and daily stand-ups
- Publish dynamic rapid response KPI dashboard for end-to-end visibility

WITHIN 72-HOURS

Assess current operations and initial recommendations

- Assess current supply chain visibility, identify critical gaps and gather initial insights
- Define scope (components, customers, products / services) impacts
- Assess initial business continuity plan risks, determine degree of impacts & prioritize
- Develop initial decision-support dashboard
- Prioritize scope and risks
- Conduct first scenario modeling of priority risks / scope, and make decisions and recommendations

WITHIN 2-WEEKS

Rapidly adjust operations and continue response cycle

- Continue expanding scenario modeling analyses, quantify risk impacts and make recommendations
 - Evaluate impacts on the ecosystem (plants, suppliers, employees, partners, etc.)
 - Customize response protocols and initiate execution
 - Re-assess and re-prioritize risks, adapting the response protocols based on execution feedback
 - Identify how to embed resilience in existing supply chain network
 - Establish a scenario planning environment that is a side car to the transaction layer
 - Automate the scenario results into the transaction layer
- Execute top-priority actions based on predefined protocols
 - Establish goals of scenario outcomes; expand scenario-modeling based on priority risk analysis and make recommendations
 - Identify data elements of supply chain threads to extract for scenario planning

WITHIN 4-WEEKS

Establish an ongoing operating capability

- Complete stand-up of operational command center
- Continue actively executing, monitoring, and adjusting protocols
- Automate updates and visualization of risk mitigation and value impact resulting from actions taken
- Update business continuity plan considering future capabilities across people, technology and processes
- Identify and quantify potential risks due to single-source of failure (site & product component level)
- Evaluate manufacturing capacity and capabilities for new in-demand products

GOING FORWARD

- Establish a robust sense and respond organization that is ready to react, with agility and speed, to unforeseen value chain disruptions
- Leverage analytics to forecast disruptions and their impacts where possible, use simulation based scenario modeling, extract insights from ERP to manage the response protocols with agility
- Reconfigure the supply chain network to reduce systemic risk and build resilience
- Adopt 'self-driving' strategy to leverage intelligent automation

Experience, through strategic partnerships, can help you get your action plan up and running quickly. Leverage their expertise in deploying with Agile methods, continuous iteration, and feedback loops.

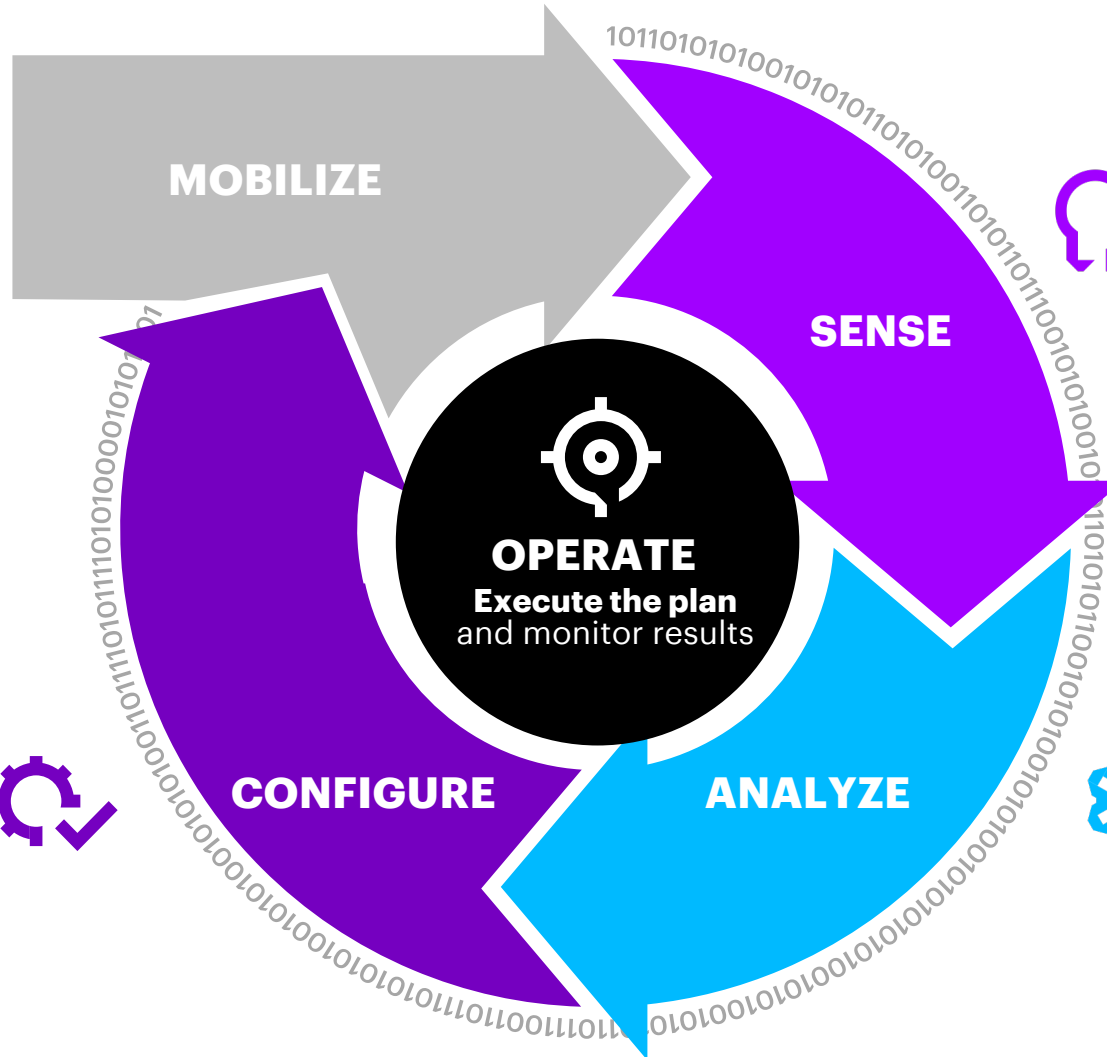


What needs to happen **now?**

Companies must develop a rapid response to address current disruptions and strengthen operations in preparation for potential future value chain risks and a new normal.

A roadmap to navigate disruption, now and in the future

MOBILIZE the command center and (initial) response plan. Establish operating rules for responses related to all supply chain interventions and contingency management



SENSE and prioritize new risks and implications to your supply chain components, products / services and ecosystem

CONFIGURE and tailor the network and products flows to execute the protocols. Develop balanced scorecard to track and measure the effort



ANALYZE what-if scenarios and protocols for source, plan, make, distribute and service implications

Underpinned by a digital & analytics backbone

Rapid response leverages digital for speed

A digital and analytics backbone are crucial to understanding supply chain complexity, anticipating disruption, and quickly developing a response.

ENABLERS



Understand the Disruption (demand, supply, network)



Manage the Disruption



Operate in New Normal



DATA

- Internal >> feed segmentation and risk analysis / prioritization
- External >> inform macro-economic effects (trade / transport restrictions, employment, geo-political)

- Internal >> feed what-if scenario, capacity, production schedule analysis, inventory positioning
- External >> supplier capacity & lead-times, employment & market changes

- Internal >> inform production capacity and capabilities for new in-demand products
- External >> management of ecosystem partnerships



PLATFORMS

- Create visualization from data extracts
- Capture IoT, POS, and sensor data

- Modify alert / exception thresholds (increase sensitivity)
- Modify inventory policies / replenishment models
- Share data / enable collaboration across partner ecosystem

- Facilitate integrated business planning
- Share data across ecosystem
- Enable rebalancing of the multi-echelon network



APPLIED ANALYTICS

- Segment the supply chain by risk / disruption type
- Assess risk types across the value chain
- Sense changes in demand / customer sentiment

- Run complex what-if scenario-models
- Anticipate disruption impacts across the supply chain(s)
- Recommend changes to network, product flow, policies / thresholds, etc.

- Automate response protocol execution
- Embed predictive analytics into decision making
- Optimize physical network, labor planning, inventory, etc.

Mobilize the response

How we can help: activate the command-center build-out, run visibility diagnostic to identify critical gaps and develop risk profiles by archetypes

NOW

- **Stand-up the command center:** define charter and purpose, identify stakeholders and team, align with similar capabilities, design governance, establish communication channels, establish approach to identify, prioritize and manage interventions
- **Assess current supply chain visibility:** determine if / where there are critical data gaps which will impede scenario analyses and design of response
- **Launch initial decision support dashboard:** capture available operational and performance data, creating (as-best) end-to-end visibility into operations as precursor to control tower
- **Leverage existing digital platforms:** repurpose digital ERP platforms capabilities to support the command-center (e.g. creating new / relevant product and/or customer segmentation, alternative sourcing options, what-if scenarios, etc.)
- **Establish action plan:** define and coordinate actionable plan(s) of the protocols to mitigate the risk, accounting for the different supply chain archetypes (if applicable), sequencing, effort (resources and time), cost and cross-functional engagement / support
- **Execute response protocols:** mobilize and empower cross-functional working teams to operationalize / implement the pre-defined and customized response protocols

NEXT

- **Enhance collaboration:** engage partners across the ecosystem to share insights
- **Operate risk mitigation as business-as-usual:** integrate automated risk mitigation workflows, scenarios and protocols into business-as-usual playbooks to quickly switch from normal operations to disruption response, as needed

Path to resilience



A **Consumer Technology Hardware Company** had significant issues orchestrating the delivery of finished goods across their global network of manufacturing and distribution facilities, impacting their ability to promise and execute on deliveries.

Through our partnership, the company implemented a centralized control tower across their supply chain, tracking product movements in real time, the client was able to gain insight into overall delivery performance, focus on customer impacting exceptions, automate customer communications, and raise overall performance.

The Control Tower was built with extensive internal and external data feeds, analytics and machine learning driven exception management and disruption early warning, and visibility dashboards to enable monitoring of complex situations.

Relevance to COVID-19

The supply chain control tower can provide quick visibility into current operations and forecasted product / service availability and allow the supply chain to make rapid decisions regarding network, secondary suppliers, re-routing product flows, as well as internal optimization.

Sense the risks

How we can help: gather insights from customer sentiment scan, segment the supply chain based on risk classification and map / prioritize risks by segment

NOW

- **Capture the unique characteristics of your supply chain** (components, products and services, customers) including segmentation analyses as they relate to COVID-19
- **Define risks / disruption scope dimensions:** determine the elements the risks pertain to (e.g. business, people, geographies, products, processes, functions, stakeholders or business partners, etc.)
- **Capture customer behavior:** anticipate changes in customer behavior and quantify the impact on demand forecasts
- **Identify, map and prioritize risks:** identify new and / or potential risks / disruptions, understand their root cause and categorize considering potential future impacts. Prioritize the most critical ones (e.g. material/parts/labor shortage, asset downtime, reduced demand, compliance, etc.) considering all risk dimensions (business and social)
- **Identify affected community and ecosystem:** determine how the identified risks are affecting or could affect the company's extended community (worker's families, third parties, suppliers, etc.) and the value chain's operations

NEXT

- **Establish an intelligence-based capability** allowing an automated identification and evaluation of risks and disruptions (e.g. new geographies affected, trade limitations, workforce / travel restrictions), and proactively recommend mitigating actions (e.g., sift big data / social media to understand consumer behavior changes)

Path to resilience



When struck with a major IT disruption due to a ransomware attack, we partnered with a **Pharmaceutical Company** to accelerate their migration to SAP Ariba Supply Chain Collaboration platform. Although the platform was designed to standardize co-manufacturing on-boarding, planning cadence, and data expectations, we applied the platform's capabilities to ensure local sourcing capacity of critical active pharmaceutical ingredients and alignment with co-manufacturing plans to sustain production volumes.

Relevance to COVID-19

Using the platform which is now live and the intelligence collected across the ecosystem, the supply chain can immediately identify COVID-19 specific impacts to raw materials, align co-manufacturing capacity plans, enable global visibility of plan adjustments, and rebalance production where possible.

Analyze the risk(s)

How we can help: model what-if scenarios, perform quick-scan of the value chain and quantify the projected impacts to sourcing, product flow, and production scheduling

NOW

- **Visualize and evaluate immediate risk impact:** identify and measure key risk indicators and quantify their impact to prioritize and focus on key strategic decisions (e.g. 'If this...then that...', 'if a parts shortage occurs, then we have lost sales')
- **Model pragmatic scenarios:** run what-if scenarios for the priority supply chain archetypes for controllable foreseeable uncertainties such as compliance, material, capacity, talent and financial issues and quantify sourcing, production, inventory and logistics alternatives
- **Evaluate alternatives:** assess existing alternatives (e.g. secondary suppliers, substitutions, scheduling changes, temporary labor needs) and determine if constraints still exist
- **Understand human impact:** model potential workforce implications, constraints, scenarios and voice of the employee
- **Conduct quick-scan of the value chain:** rapidly evaluate the end-to-end value chain performance (for each supply chain archetype, if multiple) using advanced value chain modeling tools to identify dependencies on / correlations with risks and root causes

NEXT

- **Proactive scenario identification:** based on continuous risk exposure, develop and run scenarios for likely and less-likely events, accounting for impacts across the value chain
- **Robust alerts management:** business and operational opportunities identified and driven by a simulation and optimization engine



Path to resilience

In the midst of a disruption related to an incident at a one of their key manufacturing sites, a **Discrete Products Manufacturing Company** worked with us to develop and implement a descriptive and predictive analytics-based model to quickly quantify the financial and operational impacts to their supply chain. The model's output generated a risk index which highlighted dependencies, bottlenecks and an estimated time-to-recover. The analytics provided objective prioritization, allowing the company to take action on the highest-risk exposure elements, find supplier alternatives and mitigate production impacts.

Relevance to COVID-19

The supply chain is leveraging the analytics-based risk model to evaluate suppliers in different regions (beyond Wuhan, Italy, etc.) and having the system identify:

- which products and assemble facilities will be impacted (face shortage) and for how long
- what is the financial and market-share impact of these supply shortages
- how to allocate the remaining capacity between various products to achieve a certain objective

Configure the risk response

How we can help: leveraging an existing library of response protocols, customize protocols by segment / archetype; develop protocol dashboard

NOW

- **Define and apply a pragmatic value-driven decision framework:** create a 'decision tree' to guide the decision-making process based on value delivered
- **Anticipate the future:** Use data and analytics to anticipate changes caused by disruptions and specific areas of impact across supply chain(s); use the insights to drive development of alternative courses of action
- **Customize risk / disruption protocols:** leveraging an initial library of disruptions, tailor responses and end-to-end protocols to the specific event (e.g. move inventory from China to other regions, reconfigure forecasting based on demand shrinkage / supply unavailability, flexible work models)
- **Define value chain KPIs:** identify the priority strategic and operational KPIs affected by protocols which will need to be monitored (e.g. total delivered cost including the end-to-end costs to deliver a product or services, pace of adoption and change management) and their impact on the P&L

NEXT

- **Embed resilience into existing operating model:** adjust policies, protocols, playbooks, what-if scenarios and modify talent strategy to account for risk mitigation
- **Manage extended impacts:** address continuing impacts post-event (e.g. managing the ramp up in demand and supply, balancing inventory)
- **Define suite of risk KPIs / performance metrics:** provide holistic view of financial and operational KPIs integrated with protocol results
- **Utilize intelligent capabilities:** leverage machine learning to automate decision-making



Path to resilience

Owing to rapid shifts in consumer demand across an expansive product portfolio, a **Consumer Foods Company** faced challenges with responding to the manufacturing network distributors. This was further challenged with legacy systems, cumbersome data management and increasing product and market complexity. We worked with them to improve agility across its product lifecycle management capabilities. As part of its SAP implementation, the company was able to quickly leverage the new processes and digital platform's flexibility to adapt and simplify material sourcing, product development and total time-to-market.

Relevance to COVID-19

COVID-19 is creating unprecedented shifts in global customer demand (by volume and by mix). Product management requires enhanced capabilities to sense shifts in demand and respond by rapidly adjusting their product portfolio and maintain product availability during demand spikes due to the epidemic

Operate with agility

How we can help: stand-up a response control tower, leverage intelligent automation for response execution and/or provide managed service to execute, track and adjust the protocols or perform analytics

NOW

- **Establish operations team:** establish a cross-functional team to execute the protocol and define clear lines of communication from the command center so that decisions are executed immediately and accurately
- **Adjust to protocol execution:** ensure business continuity and recognize employee concerns during the disruption by adapting to impacts from protocol execution
- **Capture, evaluate and learn from results:** define integrated dashboards to monitor the results of the protocol execution, use reinforcement learning techniques to improve decision-making, and alert the command center when additional protocols may be required

NEXT

- **Expand / establish supply chain platform(s) and analytics capabilities:** shift to or strengthen integrating business planning on a digital core platform; scale analytics or consider analytics-as-a-service
- **Adopt workforce resilience:** integrate agile ways of working into the operating model
- **Automate decision-making:** leverage machine learning and cognitive capabilities to automate decision considerations and execution
- **Build in anticipation:** embed predictive analytics into the decision making to identify and react to issues before they arise
- **Automate protocol execution:** automate actions and protocols once their effectiveness is proven and confirmed using intelligent automation (e.g. machine learning, RPA)
- **Amplify Command Center learnings and capabilities developed:** scale learnings through the business and harmonize protocols and analytics capabilities with business systems

Path to resilience



Despite being a recognized industry leader in health, safety and environmental practices, a **Resources Company** was experiencing a sudden increase in safety-related incidents in multiple facilities – putting the well-being of their employees at high risk and potentially impacting their ability to serve customers.

We helped by creating advanced end-to-end operations models using Prime Value Chain Analysis to accurately depict the way work was performed – exposing operational complexity not adequately addressed by the health and safety assurance program.

By overlaying the operations models with data from the employee's safety incidents and key elements of their health and safety assurance program, we helped the company understand the relationships between incidents, policies, training, and operations monitoring.

Relevance to COVID-19

Complex supply chain operations can introduce countless factors with the potential of affecting the well-being of workers. To address potential risks, advanced visualization modeling and analytics linked to policies, practices and the employee experience can surface root causes and support development of required interventions.

Effective **Rapid Response** requires key fit-for-purpose capabilities



MOBILIZE



SENSE



ANALYZE



CONFIGURE



OPERATE

Command center (design, capabilities and playbook)

Intelligence (spanning demand prediction, suppliers and capital operations)

Applied analytics (social listening, text mining, artificial intelligence derived by machine learning)

Intelligent automation
(robotic process automation)

Control Tower (intelligence, transparency, alerts management, data cleansing and harmonization)

Business Systems (analytics, extracting insights, developing plans, executing transactions)

Data integration (data harmonization & data quality from different data sources)

Optimization (physical network, labor planning, product flow, inventory positioning)

Risk analyzer

Simulation /
scenario modelling

Change management and communications
(brand, purpose, strategy, services)

Process digital twin

Op model design & workforce planning

End-to-end value chain transparency & analytics

Supply chain managed services

Creating Client Resilience amid COVID-19

Large European retailer: After closing all department stores across the region and a sudden shift to e-commerce, we established a rapid recovery nerve center. Also, in collaboration with the CPO, COO and CFO we created a value case and plan for releasing \$400M of OPEX.

Pharmaceuticals: To help address an anticipated demand surge in procurement operations, we are helping this company identify an approach to supporting their command center and response activities.

Global retailer: Facing a shutdown of their fast fashion retail outlets, this company turned to us for an approach to help ensure that online demand could be fulfilled from their warehouses. Additionally, we are helping with plans, processes and capabilities to improve near term and longer term operations agility.

Personal Hygiene products: To help this manufacturer address the current surge in demand for personal hygiene products, we are helping the company shape an approach to achieving real-time visibility and tracking of incidences/actions through the formation of a logistics command center and control tower.

Agricultural products company: Facing significant logistics constraints, materials shortages and labor limitations, we are helping this company consider an approach to design and implement a supply chain control tower to increase visibility, identify risks and execute mitigation plans.

Telco Services provider: As this company prepares to launch a new service in which quarantined COVID-19 patients can be monitored virtually, we are helping develop an holistic approach for project management, establishing hubs for distance monitoring as well the secure data analysis.

Solar Power manufacturer: Facing inventory challenges, warehousing costs and uncertainty in global and inland transportation routes we are discussing approaches to develop a logistics control tower to identify risks related to logistics restrictions and provide insight for planning and production.

Consumer goods company: To address challenges in demand visibility of the e-commerce channel, manual scenario planning and lack of cross-functional communications and alignment we are building end-to-end supply chain visibility assets, dashboards as well as evaluating a suite of analytics tools to improve segmentation, demand sensing and scenario planning.

Automotive Components manufacturer: Our initial project focused on inventory reduction to free up capital and fuel growth. Given the current crisis our work has shifted to identifying an approach to improve inventory visibility, development of an analytics capability, raw material supply management and planning solutions for work in-progress and finished goods inventory.

An eye on the **future...**

**Codify
lessons
learned now**

**Capitalize
on alignment**

**Build trust
and maintain
momentum**

**Evolve your
supply
chain**

Thrive in the new **normal.**

References

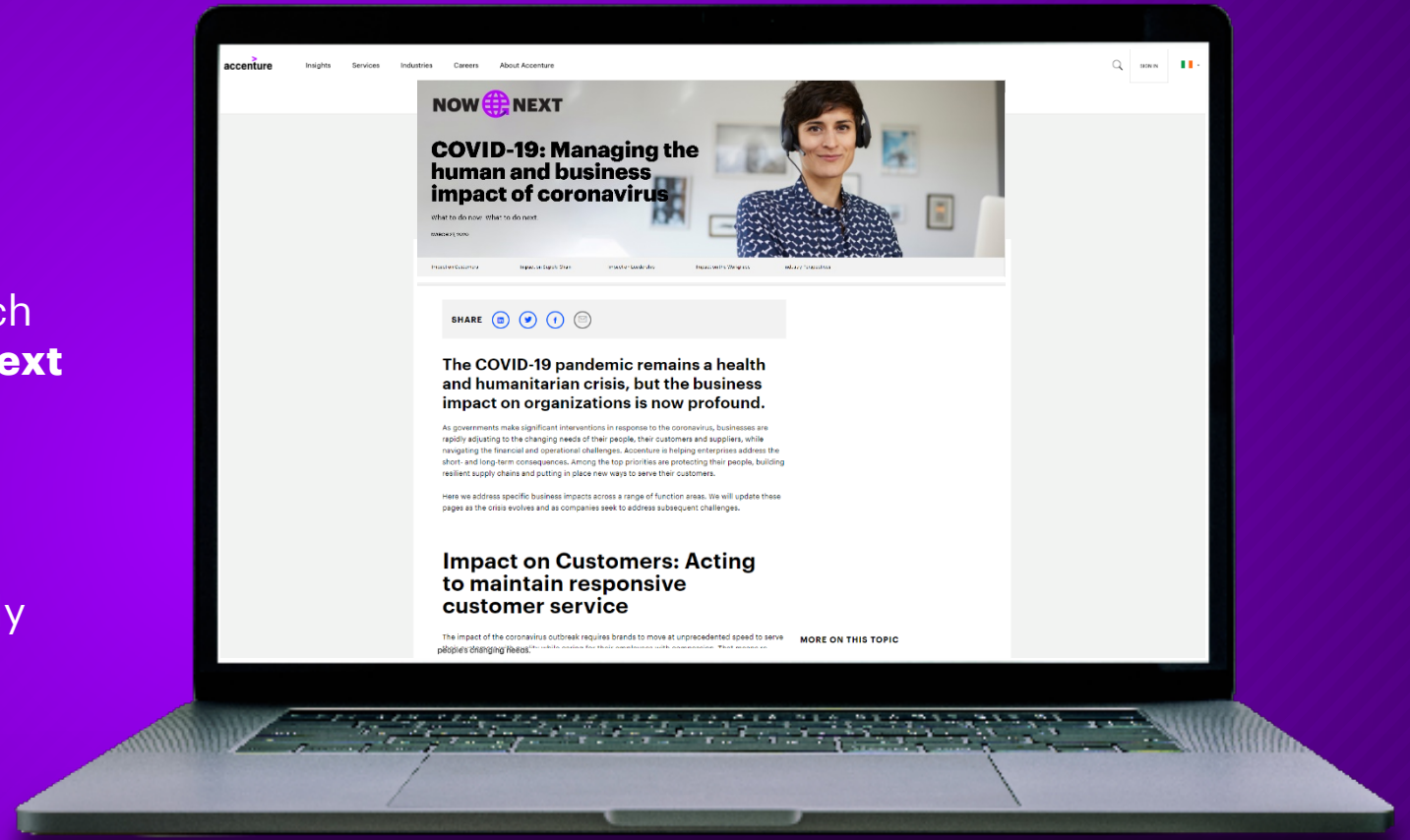
- ¹ Supply Chain Insights, 2018
- ² HBR: How Coronavirus could impact the global supply chain
- ³ (Webinar) The Economist: Coronavirus outbreak – economic and business implications, 03-Feb 2020

To help our clients navigate both the human and business impact of COVID-19, we've created a hub of all of our latest thinking on a variety of topics.

Each topic highlights specific actions which can be taken **now**, and what to consider **next** as industries move towards a new normal.

From leadership essentials to ensuring productivity for your employees and customer service groups to building supply chain resilience and much more, our hub will be constantly updated. Check back regularly for more insights.

[VISIT OUR HUB HERE](#)



Contacts



Mark O. George

Managing Director
Supply Chain & Operations
Strategy Lead, N.A.

mark.o.george@accenture.com
+1 214 784 2731



Dirk Seng

Managing Director
Supply Chain & Operations Lead,
Austria, Switzerland, Germany

dirk.seng@accenture.com
+49 1755 768 738



Vivek Luthra

Managing Director
Supply Chain & Operations
Lead, Emerging Markets

vivek.luthra@accenture.com
+65 6410 6138



Pablo Caballero

Managing Director
Supply Chain & Operations
Capability Network
Global Lead

pablo.caballero@accenture.com
+34 647 307 897



Jaime Lagunas

Managing Director
Applied Intelligence Network
and Programs Global Lead,
Supply Chain and Operations

jaime.r.lagunas@accenture.com
+34 647-353-927

About Accenture

Accenture is a leading global professional services company, providing a broad range of services in strategy and consulting, interactive, technology and operations, with digital capabilities across all of these services. We combine unmatched experience and specialized capabilities across more than 40 industries—powered by the world’s largest network of Advanced Technology and Intelligent Operations centers. With 505,000 people serving clients in more than 120 countries, Accenture brings continuous innovation to help clients improve their performance and create lasting value across their enterprises.

Visit us at www.accenture.com

DISCLAIMER: This document is intended for general informational purposes only and does not take into account the reader’s specific circumstances, and may not reflect the most current developments. Accenture disclaims, to the fullest extent permitted by applicable law, any and all liability for the accuracy and completeness of the information in this presentation and for any acts or omissions made based on such information. Accenture does not provide legal, regulatory, audit, or tax advice. Readers are responsible for obtaining such advice from their own legal counsel or other licensed professionals.