The COVID-19 crisis has affected communities, business, and economies all over the world. While the top priority is to save lives and support victims and their families, we must also act to protect the livelihoods of our community members.

Our response checklist offers practical solutions to help COOs and supply-chain leaders protect their employees and navigate through an uncertain time.

This checklist explores key actions for supply-chain leaders to consider on the journey to the next normal. We have broken down the crisis-response cycle into five stages: Resolve, Resilience, Return, Reimagine, and Reform.
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Resolve and Resilience

Resolve: During the early stages of the crisis, the immediate priority for supply-chain leaders is to keep all employees safe and informed while ensuring business continuity.

Resilience: Once immediate needs have been met, supply-chain leaders can focus on managing resources and preparing for the medium and long terms—and building broader resiliency.

Crisis management

As COVID-19 disrupts the organization’s workforce, customers, and business partners, executives may wish to consider the following actions:

Establish cascading corporate and supply-chain nerve centers

- Stand up a cascading nerve center structure flowing from the corporate nerve center, with supply-chain nerve centers focused on demand, logistics, suppliers, manufacturing, and an overall sales and operations execution (S&OE) coordination to manage major mismatches in supply and demand.
- Identify a response leader for each nerve center and ensure these leaders have the resources to execute their work streams.
- Establish the corporate nerve center as the single source of truth and integrator regarding crisis initiatives.
- Ensure that nerve centers have the proper level of peer review and accountability so that they do not become black boxes.
- Define risk-matrix and escalation protocol for threats (supply chain and non-supply chain).
- Ensure leadership is role modeling the right behaviors, including creating accountability, being action oriented, and communicating across functions.
- Ensure that nerve centers meet at the right frequency and sequence so they can communicate the latest information to the corporate nerve center and escalate or resolve issues quickly.
- Develop response-related KPIs and targets for response efforts.
- Adopt new tools, dashboards, and metrics to build transparency and help manage through disruptions.
COVID-19 response checklist for supply-chain leaders

**Stabilize stakeholders**
- Identify how stakeholders (customers, partners, competitors, regulators, employees, government, and suppliers) will likely react to primary threats, including second-order effects
- Create an intel-gathering system that allows the organization to stay abreast of evolving situations
- Establish a communications plan that outlines processes, roles, and tools to convey key messages to relevant stakeholders (eg, customers and localities)
- Assign a single point of accountability (from the business function, not communications) to connect with primary stakeholders

**Address and mitigate primary threats**
- Conduct scenario analyses, identifying the most likely scenarios of COVID-19 development, the associated impact on markets served, and regulatory requirements in production locations
- Establish emergency protocols to provide crisis funding to mitigate risks
- Initiate a review of crisis-response measures conducted in departments; carefully define scope, review leadership, and the appropriate level of independence and transparency

**2 Workforce**

**Actions to consider:**

**Protect workers’ health and safety**
- Follow all guidelines issued by local health authorities; communicate changes to workforce daily
- Increase physical-distancing measures (eg, reduce in-person meetings to a minimum, remove communal tools, stagger lunches, adapt shift patterns to reduce same-time arrivals)
- Conduct trainings on how to prevent viral transmission
- Provide on-site health personnel to monitor and support physical and mental health of employees (eg, temperature checks and counseling options)
- Provide personal protective equipment, such as masks, gloves, and hand sanitizer; if supplies cannot be obtained, consider manufacturing
- Regularly sanitize buildings to secure safety of operations (eg, install antiviral filters, increase cleaning frequency)

**Optimize labor and shift management**
- Plan for absenteeism, split teams to provide for contingencies, and develop “pods” of frontline workers to minimize employee exposure
- Enable and encourage or mandate working from home for employees in noncritical roles

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Optimize labor and shift management

- Develop support and incentives for employees to remain working during the crisis, assuming operations are safe to continue and/or resume
- Boost morale with initiatives that fit company culture (eg, offer free counseling)
- Provide formal relief programs to enable workers with sick relatives to take time off
- Coordinate among sales and marketing, supply chain, and nerve centers, identifying production mix that optimizes company results given constraints on supply chain, demand, and labor (eg, SKU reduction)
- Plan for a variety of scenarios that are specific to people, operations, and sites.

Adapt communication and leadership methods

- Develop a change story and continuous two-way communication channel to rally the team, convey important updates, and allow employees to ask questions and offer suggestions
- Build leadership capabilities to enable effective remote management

Supply and demand

The following actions could mitigate supplier disruption, confirm customer demand, and adjust manufacturing capacity:

Create transparency across the supply chain and customer demand

- Monitor supply-disruption risks by mapping supplier and subtier connectivity to shortages associated with COVID-19
- Monitor extended lead times to gauge performance and capacity against supplier promises
- Map inventories end to end across the supply chain to identify inventory supply and to predict the impact of disruptions
- Validate realistic final demand with customers
- Predict production capacity, logistics capacity, and availability of supply
- Establish five supply-chain nerve centers to guide decisions across demand, suppliers, logistics, capacity, and S&OP; manage supply-chain risks in collaboration with the corporate nerve center (see Section 1: Crisis management)

Identify and mitigate risks in supply and demand

- Perform more frequent operations planning at SKU level, allocating capacity based on product supply and demand
- Conduct best/worst-case scenario analysis to identify end-to-end supply-chain risks and mitigation strategies
- Mitigate supply-disruption risks through inventory relocation, alternate sourcing, and design substitutions
Identify and mitigate risks in supply and demand

- Simplify operations to ease burden on workforce by reducing changeovers and running high-volume SKUs
- Identify site-specific risks (e.g., spare parts), escalate to nerve center, and coordinate mitigations
- Establish cadence for customer communications on demand, fulfillment status, and order revisions
- Plan for ups and downs across the supply chain and define mitigating actions, including supporting suppliers if necessary

Plan for mismatches in supply and demand

- Identify bottlenecks and underutilized manufacturing capacity to rebalance lines as product mix and demand levels change dynamically
- Capitalize on temporary operations outages to maintain equipment and redeploy functional resources (e.g., upgrade IT system)
- Support customers and address supply concerns by offering substitutions, deferrals, and quantity adjustments
- Develop detailed plans for alternate supply, logistics, and manufacturing options
- Identify ways to clear nonmoving inventory through new customers or secondary channels

Logistics

The following steps will help leaders to de-risk networks, manage routes, and ensure functional warehouses and truck movements:

De-risk network

- Grocery retail: Forward deploy inventory in markets and do “intra-day” restocking deliveries; work with suppliers to enable direct-to-store delivery through milk runs covering multiple stores
- Nongrocery retail: Focus on online transactions and decrease pressure on last-mile fulfillment by using stores as stocking locations—incorporate online purchases and in-store, contactless pickups; reroute packages to a locker or common pickup location where possible
- Consumer packaged goods: Evaluate various scenarios (e.g., manufacturing-site lockdown, distribution center [DC] lockdown, move to new suppliers) and identify logistics options for new lanes
- Pharma and tech: Activate direct-ship lanes from manufacturers to plants or customers for high-demand items, bypassing DCs, and segmenting inventory and flows into “critical” and “noncritical”

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### Proactive route-guide management

- Grocery retail: Work with carrier partners to secure capacity early and, if required, provide incentives to carriers for operating on dedicated models for key lanes.
- Nongrocery retail: Work with parcel and last-mile partners to provide weekly volume projections and explore on-demand last-mile delivery options using stores as stocking locations.
- Consumer packaged goods: Work with customers and carrier partners to create new milk-run routes for prioritized products, maximize outbound load factors, identify more backhaul opportunities, and pay temporary premiums to carriers for difficult lanes.
- Pharma and tech: Keep track of emerging hot spots and areas in need, pre-book capacity to such areas, and identify alternate/faster routes for key imported items.

### Keep warehouses operational

- Eliminate any direct interaction between shifts and spread out activity by moving to staggered starts and meals and engaging in activity across full 24 hours to reduce crowding.
- Stop all nonessential employees, contractors, and visitors from entering site; stop all in-person meetings, including shift huddles and manager visits, and double down on hygiene.
- Explore direct-to-customer or supplier-to-plant delivery options that bypass warehouses; increase cross-dock opportunities to deal with space crunch.
- Communicate with employees on a regular basis—at least daily—to keep them informed of new developments.

### Keep trucks moving

- Implement changes at terminals (eg, minimize social interactions, move paperwork online, minimize loading times) to be a shipper of choice.

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**Transform**

The following actions will help leaders modify site operations in response to crisis needs and learnings, protecting vulnerable elements of the supply chain:

### Use downtime and slowdowns to implement preplanned operational changes

- Reallocate finished-goods to free up distribution centers and warehouse capacity.
- Take inventory/control; document all inventory levels (eg, WIPs, store) to determine what can be transferred or moved to ensure coverage upon restart.
- Complete any pending rework or repair for grounded materials (eg, finished goods).
- Evaluate supply-chain routing and create plan to update upon restart.

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<th>Use downtime and slowdowns to transform operations based on COVID-19 crisis learnings to protect vulnerable supply-chain elements</th>
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<tr>
<td>- Plan to update IT systems, performance-tracking software, and other operational systems</td>
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<tr>
<td>- Revise operating guidelines and modify site layout to ensure hygiene across the supply chain (e.g., availability of PPE and sanitizer at all sites, suppliers, and DCs) and minimize infection risk, including upon restart</td>
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<tr>
<td>- Capitalize on employees’ spare time to build capabilities— institute new training or upskilling programs to teach best practices in crisis times, hygiene and safety behaviors, and more; identify role models to cultivate best practices</td>
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<th>Create detailed roadmap for implementing learnings from COVID-19 upon restart</th>
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<td>- Identify and implement quick wins (e.g., develop trainings on hygiene and safety best practices to deliver to all employees at restarted sites)</td>
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<tr>
<td>- Compile learnings related to COVID-19; analyze gaps in current supply-chain capabilities and identify what is needed to mitigate issues</td>
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<tr>
<td>- Segment learnings as “must dos” and “nice to haves”; create implementation calendar based on a combination of importance and impact, investment of time and cost, and potential disruption to the supply chain</td>
</tr>
<tr>
<td>- Collaborate with government to find ways to support the business community while also protecting public health, labor policy, and essential business that will help companies rebound and mitigate future disruptions</td>
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Return, Reimagine, and Reform

*Return*: Create a detailed plan to quickly mobilize and return to scale as the virus evolves and knock-on effects become clearer.

*Reimagine*: Envision the “next normal” and examine the implications of that scenario as businesses begin to reinvent and build resilience for the future.

*Reform*: As the coronavirus pandemic subsides, leadership tasks will center on improving and strengthening supply-chain capabilities to build resilience.

Crisis management

Adopt methodologies from the nerve center into the next normal. The following actions can help:

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<td>Integrate nerve centers into the regular decision-making process</td>
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<tr>
<td>Use cross-functional and autonomous teams to address highest priorities and continue to build connections developed during the response</td>
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<tr>
<td>Prioritize rigorously; encourage teams to focus on minimum viable products (MVP) for new solutions</td>
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<tr>
<td>Adopt new project-management techniques, including visual management/flow of work and stand-up meetings to better track progress and resolve issues</td>
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<td>Continue to engage and involve stakeholders as medium- and long-term plans become more concrete</td>
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<tr>
<td>Shift work processes and authority levels based on recovery plans</td>
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<tr>
<td>Improve tools and systems to further enable decision making and transparency (e.g., automate reporting, install data-acquisition systems)</td>
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<th>Continue to address threats and mitigate root causes</th>
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<td>Conduct scenario planning for the rebound: identify most likely corporate scenarios and have functions plan around them</td>
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<tr>
<td>Shift risk tracking from now to weeks or months in the future to move the organization out of reacting mode and into planning mode</td>
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<tr>
<td>Incorporate industry best practices and solutions around common disruptions</td>
</tr>
<tr>
<td>Engage in rigorous root-cause problem solving and share learnings across the organization, preventing and mitigating future unplanned events</td>
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2 Workforce

Ramp up production safely, continue communications, and reskill and train employees. The following actions can help businesses plan for the future:

Reopen and ramp up production
- Follow all official guidelines issued by local health authorities
- Monitor and communicate health risks daily: create transparency around decisions related to resuming operations and use all available communication channels
- Create detailed checklists to monitor site preparedness and adherence to safety standards
- Formalize health-support procedures as applicable, such as monitoring employee temperatures, staggered lunch times in cafeteria
- Coordinate with nerve centers to ensure S&OP planning reflects workforce capacity

Evaluate alternative workforce strategies
- Evaluate feasibility of formalizing longer-term flexible production, shift staggering, and team splitting to create contingency plans
- Assess viability of strengthening production “pods” by installing physical barriers or automating manual tasks to further minimize virus transmission at work
- Create additional work-from-home options for nonfrontline workers and other areas to decrease on-site employee density
- Use and upgrade technology tools to support additional physical distancing (eg, video use on production line)

Strengthen communications
- Adopt a formal communication cadence to ensure that employees have the latest information
- Continue to improve communication channels to better reach employees and ensure that their feedback is heard and acted upon

Invest in reskilling and training
- Develop leadership capability-building program based on lessons learned from successful teams during immediate response (focusing on remote management)
- Evaluate reskilling and cross-training opportunities for production and nonfrontline employees to ensure continuous production and build organizational capabilities
- Create training options and learning journeys for employees to grow skills needed for shifting work environments, including training on digital tools
## Supply and demand

Build supplier resilience, regain customer confidence, and recognize and take advantage of growth opportunities through the following actions:

| Develop new demand scenarios and forecasts | ○ Introduce advanced planning tools to improve forecasts and anticipate future disruptions |
|                                          | ○ Assess growth potential in product portfolio as customer preferences change and determine position relative to competitors |
|                                          | ○ Develop demand scenarios and forecasts using market intelligence and improved customer insights |

| Optimize product portfolio and network     | ○ Revamp product portfolio strategy based on new demand; reduce complexity or offer new product lines |
|                                          | ○ Optimize network for anticipated demand; consider shifting production between locations and making line adjustments within facilities |
|                                          | ○ Assess organic and nonorganic supply-chain and asset investments to capture shifting demand, increase capacity, and enhance competitiveness |
|                                          | ○ Capitalize on opportunity to digitize supply chain and operations to further improve flexibility |

| De-risk manufacturing, suppliers, and inventory based on COVID-19 learnings and potential future shocks | ○ Improve supply base; consider localizing supplier bases or second-source suppliers across tiers |
|                                                                                                          | ○ Maintain and improve manufacturing-network flexibility in production lines and workforce |
|                                                                                                          | ○ Gradually refine capacity in key production lines and supply channels to improve flexibility and capture demand |
|                                                                                                          | ○ Applying COVID-19 learnings, optimize inventories to handle future shocks in supply and demand |
|                                                                                                          | ○ Continue frequent communications with customers to anticipate additional demand risks and capitalize on new opportunities |

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Incorporate new ways of working into operating model
- Integrate supply-chain nerve center into existing S&OE process while maintaining end-to-end supply-chain transparency and periodically updating risks and business-continuity plans
- Link supply-chain nerve center to corporate nerve center to ensure that all major supply-chain decisions are cross-functionally aligned and tied to corporate priorities
- Improve management of remote frontline performance and maintain site-level cross-functional coordination (eg, between operations and maintenance)

Logistics

Shielding your network and developing strong partnerships with carriers and customers are likely to grow in importance. The following actions can help:

Optimize new network
- Understand new lane distributions and assess their long-term feasibility for each operating region
- Recognize volume changes by lane and rationalize their operational and financial implications
- Initiate bidding processes to develop agreements around new volume and capacity
- Review capacity in warehouses and operations and resize according to new logistics

Stress test carrier portfolio
- Evaluate the ability of carriers and third party logistics (3PLs) to withstand financial distress and strategize responses
- Evaluate new capabilities in your network (eg, are carriers capable of contactless operations?)
- Reconfirm strategic partners across all dimensions, with particular focus on critical lanes

Deepen partnerships
- Expand strategic relationships with carriers and 3PLs, leveraging volume concentration and flexible agreements to shield the network from the effects of eventual market-rate decreases
- Establish flexible-pricing mechanisms (eg, allow for rate adjustments tied to index in contractual negotiations)
- Explore partnerships with new carriers
- Ensure alternative capacity on critical routes
Deepen partnerships

- Assess carrier performance across key metrics (e.g., on-time record, tender acceptance) and take corrective actions
- Partner with government organizations to develop ways to fulfill local requirements and needs (e.g., build stock locally)

Capture productivity opportunities in logistics

- Work together with customers and suppliers to minimize end-to-end logistics costs and pass a portion of savings to partners when possible
- Identify internal productivity opportunities and enhance execution by developing more-effective planning strategies that leverage data and analytics
- Align with customers on service level given potential bottlenecks and disruptions (e.g., eliminate or be flexible with conditions around delivery guarantees, understand new lead times)

Transform

Reshape overall operating model, reimagine network strategy, and adopt best-in-class digital tools by taking the following actions:

Rethink overall supply-chain operating model with regard to processes, people, and structures

- Examine the impact of COVID-19-induced disruptions (e.g., volatile demand) on your supply chain, and consider whether stronger internal structures could have mitigated this impact
- Assess workforce availability/capability gaps uncovered during the crisis and upon restart (e.g., a need for extensive workforce redeployment) and plan for a more adaptable and flexible labor force
- Identify critical skills that proved most valuable during the crisis; plan to invest in appropriate workforce-deployment levers to better absorb future shocks

Adopt best-in-class digital tools: automate and digitize operations across supply chain, manufacturing, and logistics

- Invest in best-in-class autonomous planning capabilities; combine machine learning and predictive analytics to improve forecasting accuracy, minimize upfront costs, and optimize finishes goods inventory
- Strengthen digital manufacturing capabilities in your supply chain; integrate human, machine, and data analytics to improve labor productivity and reduce equipment downtime
- Implement digital tools in logistics (e.g., build predictive-asset and shipment-tracking mechanisms, implement advanced labor-planning tools)
Assess overall supply-chain risk and anticipate future regulatory changes to adjust and optimize network

- Leverage crisis learnings to identify and document most-vulnerable / hardest-hit elements across the end-to-end supply chain (eg, raw-material supply, product complexity, logistics capacity)
- Prioritize identified risks by impact, ability to mitigate, and likelihood of occurrence
- Establish early-warning systems to be triggered in case of future crises; institute clear governance structures (eg, risk owners, mitigation-review leads) and risk-transfer plans (eg, regulatory support, insurance, stronger contracts) to improve future crisis response