



# REINSTATING THE PHARMA SUPPLY CHAIN POST COVID-19 PANDEMIC DISRUPTIONS

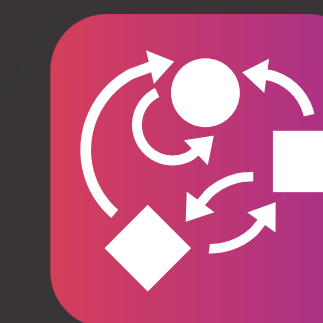
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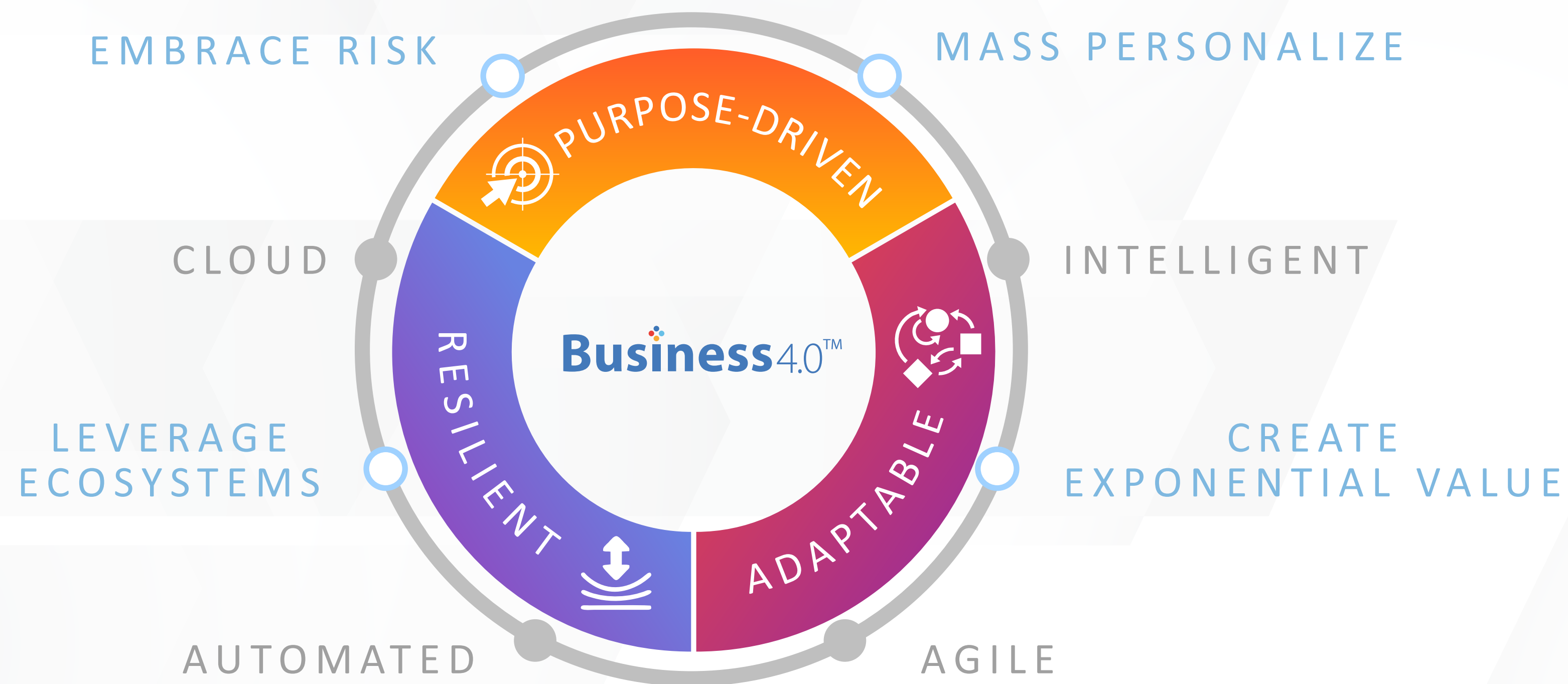
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## Abstract

The COVID-19 pandemic has brought about a series of unforeseen disruptions to the global supply chain for the life sciences industry. In the wake of this pandemic, both the demand and the supply sides of the drug manufacturing value chain have taken a beating. Material supply and manufacturing, distribution, pharmaceutical products, and the production processes are all facing multiple challenges as they cope with a reduced workforce, movement restrictions, and social distancing norms. Taking hints from the success of a high-visibility supply chain, this whitepaper explores some of the approaches that companies can take to circumvent challenges and get their production back on track.



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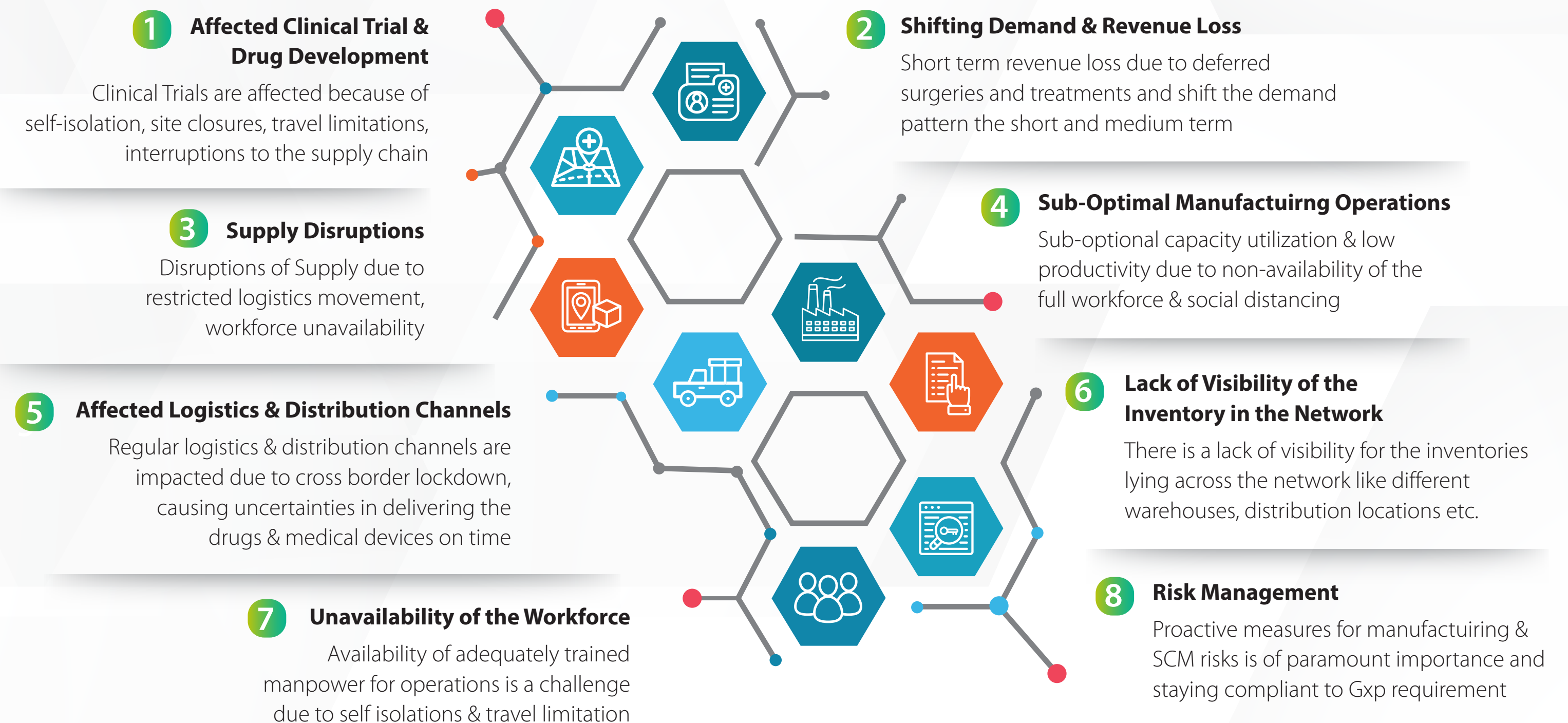


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# Mending the Pharma Supply Chain

The pharma industry operates in a complex environment as it is dependent on various global partner networks including suppliers, logistics providers, contract manufacturing organizations (CMOs), warehousing, and contract R&D partners to efficiently produce, ship, and distribute their products. On top of the industry's highly regulated nature, the COVID-19 crisis will bring about tighter GxP regulations and government guidelines. The need of the hour is a strategy that considers the new norms and ensures sustainability post the pandemic.

## Impacted Areas in Pharma Supply Chain & Manufacturing



# Visibility – Need of the Hour

An unhindered view of the multiple components of the value chain, such as inventory availability, market demand, supplier capabilities, and production capacity, is a surefire way of ensuring minimal disruption. When it comes to complete visibility, companies will need to look at more innovative ways of how and where to start, to alleviate risks and avoid potential losses. There is need for agile transformations to respond faster to the market demands. Taking notes from that, we propose a 4-step approach for reinstating pharma supply chains:

- 1 Form a Strategic Task Force for supply chain continuity**  
 Decision-makers can form a dedicated Strategic Task Force (STF) to evaluate the current state of operations. The STF can comprise members from different cross-functional areas of the supply chain like sourcing and procurement, manufacturing, distribution, after-sales support, etc. Most importantly, they need to be authorized to execute the required actions.
- 2 Assess the supply chain strengths and weaknesses post the crisis**  
 The strategic taskforce should start with assessing every function of the drug supply chain and identifying the disrupted areas along with areas to improve. Based on the priority of these functions/areas and their impact on the overall supply chain, they should draft a list of action items.





### **3 Focus on manufacturing facilities and the workforce**

The health of the manufacturing assets, the WIPs between the stages, shop floor inventory stocks, and packing materials must be part of primary considerations. Bringing human resource, the most important asset of the business back into the business value chain would be one of the critical tasks.

### **4 Identify key improvement areas and deploy the measures**

The executive report along with the action plans should be submitted to the decision-makers for their buy-in to move ahead. Along with the key action items, the costs involved must be mentioned. The overall assessment can reflect on the areas critical for considerations and steps for repairing the gap.

The highly outsourced pharma supply chain model encompasses multiple external stakeholders. This means tighter integration, seamless collaboration, and information exchange with all partners across multiple tiers of the supply chain is crucial. With most physical networks down because of the COVID-19 pandemic, digital networks hold the key to successful supply chain orchestration. The companies that are digitally mature and have established a sound network will have better directions to move in.



## Enhancing Operational Visibility

As a part of the strategic action plan, the STF can investigate the following key areas to bring visibility in the upstream and downstream business units of the supply chain.

### Demand visibility

Predicting the market demands post COVID-19 may not follow any standard forecasting model. It will be relatively easier to estimate the demand for certain drugs like OTC once the connection with Points of Sales is re-established and there is clarity on how much to produce and when to produce. This will also help get the suppliers and the CMOs on the same page. Markets might also witness a sudden surge in demand for some vaccine or general medicine because of the suppressed demands during disruptions. Accordingly it will become necessary to:

- Assess the pending orders that are not fulfilled yet
- Analyze the general demand pattern including emergency requirements across the network
- Look at the refreshed product and marketing mix in the wake of new requirements



## Available inventory stock

Due to the mass lockdown in multiple countries, there might be stocks-in-transit lying across the upstream and downstream parties of the supply chain. Some may be in the in-transit storage locations or vendor locations. Consolidation of the pipeline inventory is necessary to understand how many days' worth of inventory is on hand. The same exercise can be performed in the downstream processes to estimate the number of overall finished goods across warehouses and what percentage of the customer demand it can fulfill. While assessing the overall network inventories, it is important to focus on the following areas:

- Special emphasis on the fast-moving and critical items. It will reduce the potential risk of stock-outs
- It is quite likely that few of the items may soon be approaching their shelf life or already have and an appropriate usage or disposal plan should be devised
- Design similar strategies for slow-moving or dead items as well

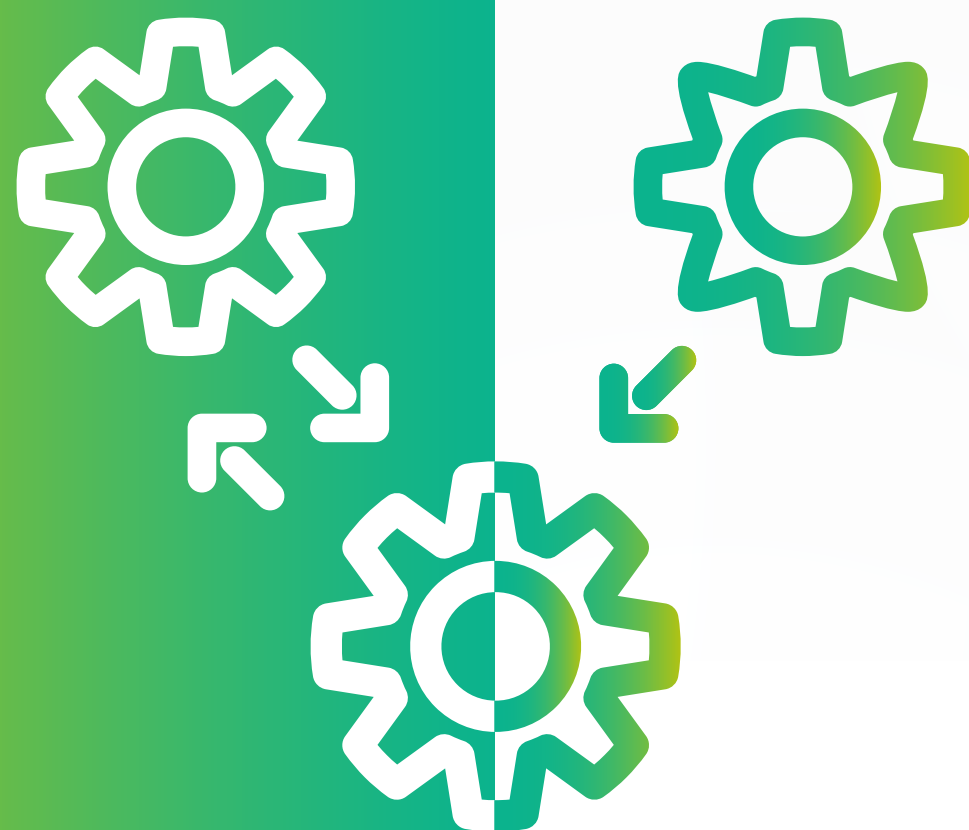




## Supplier capability

In the current scenario, it is paramount to understand supplier capacity and challenges in delivering materials as per the planned schedule. The material requirement planning should consider the pending purchase orders, the stock in transit (local and imported), and the available stocks in the vendor-managed inventory. Correspondingly, the production plan must be aligned with the material availability and the same updated communication must cascade across the value chain. Apart from that, the following should be a part of the action plan:

- Find alternate sources for the materials if the regular sources do not work
- Review all procurement and service contracts and update them if required
- For uninterrupted production, initiate emergency procurement plans with due approvals



## Manufacturing capacity

All manufacturing assets should be in the right condition, based on the optimum process parameters. Due to the sudden suspension in production, there is a chance that WIPs are lying in various stages of operation. The WIP stock-check as well as quality evaluation are crucial. The review checklist should contain the following areas:

- Check the workforce availability and create a deployment plan for different processes or machine areas
- Redefine and reset processes and workflows
- Evaluate the capacity of CMOs for supplying the required items



## Logistics and Distribution Capability

The last-mile function in the entire value chain is responsible for fulfilling the customer demand, owing to which, logistics and distribution take on a more crucial role. Adequate planning for the efficient distribution of end-products to different delivery centers, drugstore chains, and pharmacies will complement the efficacy of production. Following are some of the parameters that decide the distribution capability:

- Managing decentralized distribution systems may be a greater challenge during the pandemic. So, companies can focus more on centralized or hybrid options
- Review the logistics planning, load building, and capacity planning in the context of the shifting demands and new network configuration
- Greater focus on inventory visibility can improve the efficiency of the logistics and distribution capability

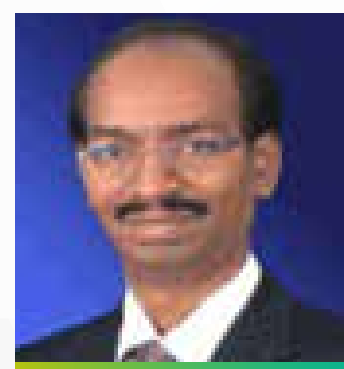


## Conclusion

Recovering from the COVID-19 pandemic at the earliest possible requires a highly focused approach. The proposed 4-step process and the five key focus areas can guide pharmaceutical organizations in sailing through these turbulent times and reinstating the supply chain to its optimum efficiency.

## About the Author

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Mithugopal is a senior management consultant in TCS' life science advisory practice. He has over 22 years of experience in large-scale business & technology transformations, manufacturing excellence, integrated supply chain management, data analytics & business insights, enterprise risk & performance management

He has significant experience in the area of digital strategy & transformation, industry 4.0 & intelligent automations including IT & OT integration.

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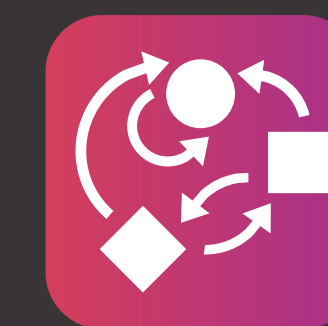
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