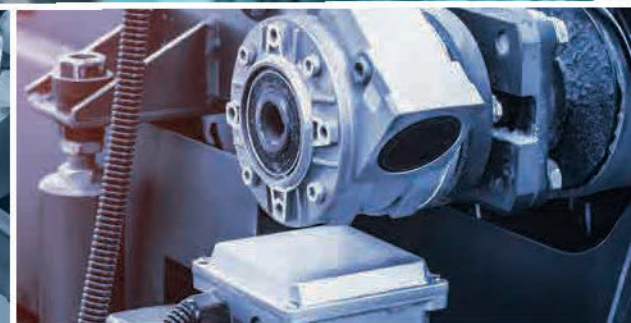


**Belcan**

# Optimising the Supply Chain in a Changing Environment



# Organisations must safeguard employees and protect the business

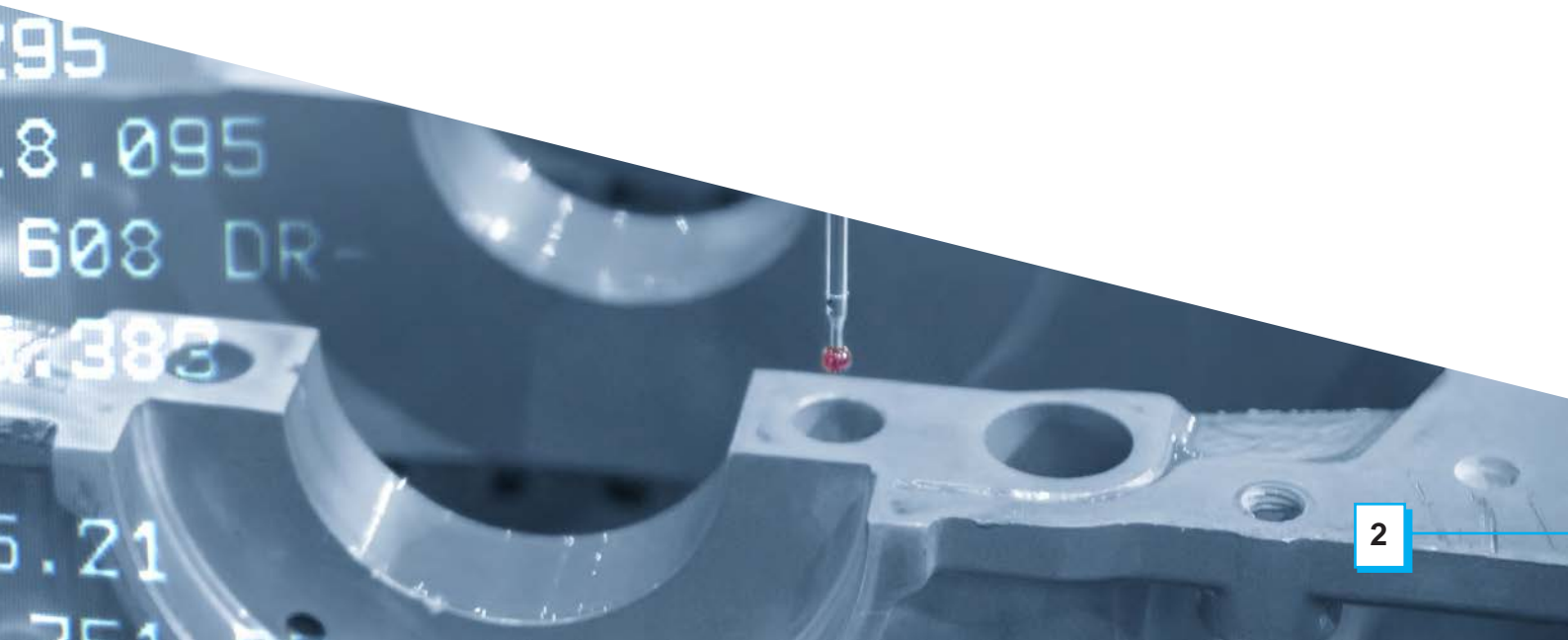
## Executive Summary

The global situation has caused a largescale of automotive manufacturing interruptions across the globe with OEMs shutting plants temporarily to suppliers ceasing production for a few weeks. The temporary stoppage means no shipments, no transactions and staff are on either reduced income, reshuffled within the business, or laid off.

The distressed global supply base has affected the automotive industry significantly and positioned organisations under extreme pressure to increase cash flow, re-evaluate supply chains, optimize costs, and develop a safe working environment for employee welfare, along with simultaneously moving and managing staff who are working remotely.

Belcan advises organisations that action should be taken sooner than later to avoid future challenges when manufacturing operations are restarted and scaled to volume. Therefore, to support the automotive industry, Belcan has developed a 5-stage model that provides a guideline for executives and practitioners to use during this crisis and, more importantly, to build a robust operational readiness strategy and mitigate business risk.

**CEOs are refocusing efforts to improve cash flow, supply chain efficiency and employee welfare/wellbeing.**





**During the unprecedented global economic situation, automotive suppliers will see a sharp decrease in orders. Organisations have already suspended or adjusted financial year targets.**

## **Introduction**

The global situation has significantly changed the dynamics of the automotive industry with regards to OEMs who have temporarily ceased manufacturing vehicle production, which as a result has affected manufacturing suppliers who have shadowed the OEMs. Manufacturing suppliers have either continued at very low volume (depending on geographical supply) or completely shut down manufacturing operations on a temporary basis. This has caused ripple effects across the entire supply chain for example, Materials Planning & Logistics, Product Engineering, Purchasing, Finance, and Supplier Assistance.

The government regulations put in place are country-specific, but implemented to reduce health risks and distance individuals to prevent the spread. The industry has reacted to safeguard employees and ensure their wellbeing. These regulations are causing further challenges within the industry as organisations do not have full access to labour, manufacturing capacity has been significantly reduced and logistics routes/hubs are restricted or closed due to border or lockdown restrictions. As declared by most OEMs, they will not restart manufacturing operations for a few weeks, which directly affects the manufacturing suppliers and global supply base. Coupled with these challenges, organisations are taking measures to increase cash flow by reducing staff (either reduced working hours, reduced pay or consolidation of staff and additional layoffs), reduce material costs (raw material and finished goods maintained at a preferred level, only build what is required) and remote working (working offsite using the appropriate tools).

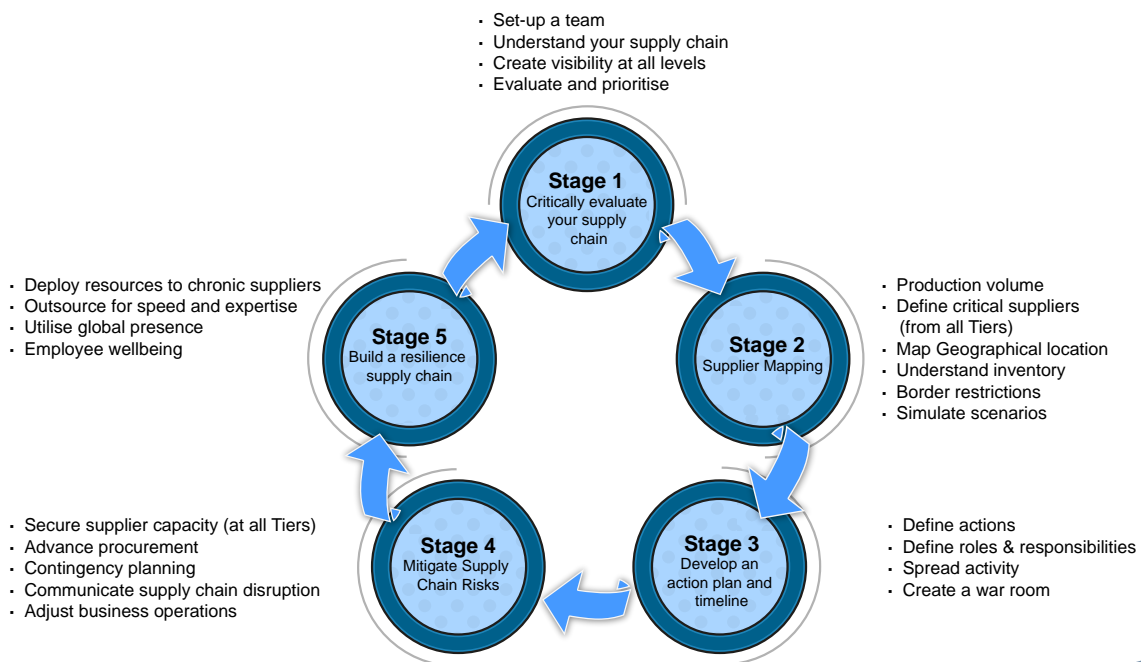
To further mitigate business risks, organisations have the opportunity to develop their supply chains and re-shape their businesses to ensure operational readiness when the industry restarts. Belcan has developed a 5-stage model, which organisations can use to help develop operational readiness and mitigate business risk. The model can also be used as a guide for a business to ensure supply chain activities and associated tasks are achieved.

To reduce supply chain costs, companies have pursued strategies such as lean manufacturing, offshoring, and outsourcing – HBR 2020.

## Belcan Methodology

Belcan has been developing supply chain solutions for over 30 years and have created a wealth of knowledge on expediting organisations to achieve results. The 5-stage model has proven to yield results and protect an organisations supply chain, ensuring cost avoidance with the advantage of identifying and migrating risks quickly, so an organization is better prepared with the minimum impact on the supply chain. Further, when supply chains become disrupted it can lead to unintended reputational damage, which could take months to recover with organizations tackling many challenges at the same time.

The 5-stage model is worked through by an organisation to understand the supply chain, map the critical suppliers and components, develop an action plan and timeline, mitigate the risks and build a robust and resilient supply chain.



## Stage 1: Critically Evaluate The Supply Chain

Stage 1 of the model involves developing a cross-functional team to formulate a comprehensive understanding of the supply chain to create visibility at all levels, evaluate and prioritise the visibility.

**Set-up A Team** – Formulate a cross-functional team within your organisation and robust governance structure to ensure fast decision making. Typically, the cross-functional team should consist of purchasing, material planning and logistics, supplier technical assistance, and other experts who could contribute to evaluating the supply chain. The team formulation is critical during this stage as organisations are under pressure to complete these activities in a timely manner.

**Understand Your Supply Chain** – During the development and implementation of this model, we have identified a number of organisations that did not completely understand their supply chain. Recognise and document how the supply chain functions, who does what, which activities are manual/automatic and how the supply chain responds to different situations when under stress.

**Create Visibility At All Levels** – The visibility enables an organisation to gain insights from the data gathering exercise which will be used as an input during the next few stages. Do not only focus on understanding your bill of material but also extend this out to operations.

**Evaluate And Prioritise** – When critically evaluating your supply chain it is important that you rank suppliers which are at greater exposure and risk for disruption. Develop a heat map to show priorities. This can also be used for the senior team within the organisation. The supply chain activities must be evaluated and prioritised retrospectively with reliable data. Try to develop an early alarm protocol.

## Stage 2: Supplier Mapping

Stage 2 of the model involves supplier mapping and analysis to critically define production volume and mix, critical suppliers at all tiers, geographical location, inventory within the entire supply chain, border restrictions in place and simulate supplier scenarios.

**Production Volume** – The global epidemic is driving an unprecedented customer demand by both volume and mix. The supplier mapping begins with reviewing the current and future production volume mix to understand the critical gaps across the entire supply chain. During stage 2, it is important the business also identifies production demand and mix for service parts (this is normally not considered). The production volume should be mapped across your critical supplier's at all tiered levels.

**Define Critical Suppliers (All Tiers)** – Using stage 1 to underpin the critical suppliers, build a robust collection of suppliers which are or will become challenging. Gaining intelligence from the supply chain is extremely important. Liaise with your supply base experts and ensure a firm strategy.

**Map Geographical Location** – It is vital that the geographical location is mapped of each critical supplier to understand the impact on the business. For example, if a supplier is located in China and components are required within a short time, it is estimated that a standard six-week lead-time could become problematic, and therefore to mitigate the risk other expensive transportation methods are used to accelerate the transit time. This becomes a very expensive route to procure supply of parts and costs accelerate faster than noticeable.

**Understand Inventory** – Many organisations do not calculate the entire supply chain inventory and this activity can yield results in the short and long term. Review the entire supply chain and record the min/max inventory level at each supplier. Mapping the inventory at all levels will assist with capacity planning during launch and ramp-up. In addition, conducting an in-depth analysis on inventory will help with cash flow and provide visibility for purchasing.

**Border Restrictions** – During any pandemic, border restrictions will come into force and transit times are significantly longer than usual. Therefore, it is important to factor the additional time it will take for transportation/logistics and the impact this can have on parts supply.

**Simulate Scenarios** – When conducting a supplier simulation it is critical to understand if components or products could be developed from a different supplier location and the typical time this will take to implement. For example, in the conductor and electronics industry, key components can be acquired from the spot market if suppliers are short.



## Stage 3: Develop An Action Plan & Timeline

Stage 3 of the model consists of developing a realistic action tracker that clearly defines the roles and responsibilities of each team member. To distribute the work content, activities should be spread across different departments and a war room developed to hold the necessary information.

**Define Actions** – Working through Stages 1-2 of the model, critically define actions that will help stabilise the supply chain and reduce customer impact.

**Define Roles & Responsibilities** – Using the cross-functional matrix (Stage 1), clearly define the roles and responsibilities of each team member. Individuals need to be exactly clear on the deliverables.

**Spread Activity** – During extremely difficult situations, it is advised that tasks are spread across the entire business to distress and improve recovery. For example, purchasing must focus on developing further relationships with suppliers and understanding commodity risk and buying, Supplier Technical Assistance / Quality to provide insights to areas of risks associated with the supply bases, etc.

**Create A War Room** – Develop a rich body of knowledge through a war room concept either virtually or on-site. Ensure all team members are using data to underpin critical business decisions.

## Stage 4: Mitigate Supply Chain Risks

Stage 4 of the model consists of mitigating supply chain risks by securing supplier capacity, advancing procurement of critical suppliers/components, contingency planning, communicating supply chain disruption and adjusting business operations where required.

**Secure Supplier Capacity (At All Tiers)** – Reserving supplier capacity is critical when supply chains are disrupted or the availability of components are reducing to a lower threshold. When discussing with suppliers keep in mind how production scheduling is conducted, the lead-time for sourcing components, the capacity per manufacturing line, etc. Ensure suppliers have the capacity and only those items are produced, otherwise product availability will become another issue.

**Advance Procurement** – As outlined in Stage 2, critical suppliers are those who majorly affect a product being built. An organisation has the option where possible to advance procurement of critical suppliers to ensure minimum supply chain disruption.

**Contingency Planning** – Review the most critical suppliers and develop a contingency plan to mitigate risks. The contingency plan should also extend to small businesses that might experience financial difficulties during this period. Map these businesses as they could hinder your production and stop your customers when manufacturing operations re-start.

**Communicate Supply Chain Disruption** – Be open with key internal and external stakeholders and communicate the risk of supply shortage, followed by a robust plan to clearly show how the business is under control and the proactive steps in place to minimise disruption within the supply chain. Use best practices by adopting a philosophy of no-surprise approach to key stakeholders.

**Adjust Business Operations** – Each country has different regulations that need to be followed. If necessary, adjust your business operations to mitigate the supply chain impact. For example, when ramping up production, an organisation should understand logistics capacity and where possible pre-book with existing providers which can keep costs minimal, as during these times service providers tend to inflate costs.

## Stage 5: Build A Resilience Supply Chain

Stage 5 focuses on building a resilience supply chain which has the ability to react quickly when under significant stress. Deploy resources at chronic suppliers, outsource for speed and expertise, utilise a global team and ensure employee wellbeing and safeguarding.

**Deploy Resources** – It is critical to identify people (either internally or externally) who can be deployed to chronic suppliers either in person or virtually to create a taskforce team. Typically, this would involve using tools such as shop floor management, problem-solving and specific KPIs to drive the necessary improvements at suppliers.

**Outsource For Speed And Expertise** – Organisations are using Belcan to accelerate their supply chain results and provide experts with know-how to support operations. Belcan is supporting OEMs and suppliers to accelerate the supply chain journey through speed and precision with deploying qualified resources on-site within 8 hours.

**Utilise Global Presence** – Where possible an organisation should utilise a global team to build a cohesive supply chain. The global presence can be developed internally or with support from Belcan's global team.

**Employee Wellbeing** – When manufacturing operations are restored, the business will need to take additional measures to ensure maximum safeguarding of staff. This could result in additional screening of all employees, providing additional personal protective equipment to all on-site employees and additional checks. However, these checks might increase the fall out rate and therefore could potentially affect throughput within the organisation. As a back-up plan, prepare suitable substitutes where possible as this could totally halt operations.

## About The Authors

**Dr Steve Simplay** – Director Automotive Solutions at Belcan Consulting Services, Europe. He has over 20 years of automotive experience from BMW, FORD, VW, Jaguar Land Rover and a number of Tier 1 Suppliers, in engineering, manufacturing and supply chain. He has led projects on developing complete manufacturing facilities located in Europe and Asia for OEMs producing low and high volume products. He has carried out a number of manufacturing site assessments directly at plant locations and is highly experienced when conducting evaluations. He works on supporting his team through manufacturing site assessments, supplier development and supply chain solutions with the additional capability of supporting other business units. He holds an aerospace systems degree and PhD from Coventry University, United Kingdom and is a Chartered Engineer.

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**Steve Turner** – VP Operations at Belcan Consulting Services, USA. He is a senior executive with more than 38 years of purchasing and supplier quality management experience with Ford Motor Company. During this time, He is responsible for strategic planning, cross-functional process improvement and business plan development to create a Global Supplier Technical Assistance Strategy at Ford Motor Company. Further, his capabilities extend where he was responsible for restructuring the strategy and methodology utilized to evaluate supplier quality capability, including driving continuous improvement, identifying performance gaps and improving downstream processes. He has developed a revised site assessment tool to maximize product quality. He has also led development and standardized deployment of global business plan processes including overall strategy, outlining objectives, performance-to-plan oversight and resource planning. He improved process efficiency, communication and organizational design resulting in improved current-model supplier quality and successful new model launches. He holds a BS in Economics from Boston College and an MS in Management from Purdue University Graduate School of Management.

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## Industry Expertise

Engagements led by experts with decades of experience in their respective industries, across all phases of the product life cycle and business / supply chain.



## Experience / Scale

1,650+ highly-seasoned financial, manufacturing, and operations veterans that have run businesses, sites, and large functions – ready for both advisory as well as interim management support.



## Value

Belcan advisors are expert problem solvers willing to “roll up their sleeves” in the offices and on the shop floor to improve performance.



## Speed

Capable of delivering qualified resources globally inside of 8 hours.

