

BUILDING FOR A RESILIENT SUPPLY CHAIN DURING AND AFTER THE COVID-19 PANDEMIC

Managing the impacts of shocks and stresses on supply chains for the built environment in the Middle East

Overview

The current COVID-19 emergency reinforces the criticality of business resilience in the GCC construction and infrastructure sectors, not just for dealing with issues right now but for planning for recovery and securing a stable long-term future. The resilience of the industry is highly dependent on reliable, flexible and sustainable supply chains. This paper describes the supply chain management steps that clients, contractors and major suppliers alike should take to: secure the supply chain right now, look ahead to business recovery, and plan for a post COVID-19 world. **We call this three-step process Secure, Recover, and Prepare.**

Introduction

Our work at Arcadis is almost exclusively with clients in the built and natural environments. These sectors are a major employer and integral to our economy : the construction sector contributes 6.5% of Dubai's GDP and 6.2% to Saudi Arabia's GDP, for example. How can these sectors continue to make significant contributions in these uncertain and volatile COVID-19 market conditions?

The first priority is that we keep our people safe, healthy and in work where possible. Sites should only operate if safe to do so and that in the GCC means following the latest Government guidelines. Lessons taken from what has happened in other parts of the world has informed thinking on health protection for workers. Measures that enable people in all occupations to continue to work – for example, adapting site practice to minimise contact risks – will be essential if we are to continue to build.

The second priority – business continuity – is equally urgent. Cash is a major factor, and it could stop circulating through the sector within weeks. It is important to recall that, in the immediate aftermath of the 2008 financial crisis, nearly 70% of construction business failures occurred as a result of either reduced cashflow, a reduction in workload, or as a consequence of a slowdown in the wider economy. Through a perfect storm of work stopping on sites and the holding of money within the supply chain, untold damage was done to industry capacity – damage that still affects the sector.

However, ensuring overall business continuity is even more complex, and is highly dependent on **supply chain resilience.**



How to respond, recover and prepare for a resilient future?

Even before the Covid-19 emergency, we were all becoming accustomed to a VUCA World (where Volatility, Uncertainty, Complexity and Ambiguity are the new norms). What should the construction and infrastructure sectors do now, to evaluate supply chain vulnerability and create true resilience going forward?

As organisations look ahead, they will want to learn the lessons from Covid-19 but also ready themselves for the next shock or disruption (whether it is due to extreme weather, financial market distress, energy scarcity, cyber-attacks, or civil unrest, for example).

We have set out **8 key steps** to be taken. Some need to be immediate to **secure** supply, others will come next to support businesses to **recover**, and the remainder are longer-term actions to **prepare** for a post Covid-19 world and build for a resilient future.

These are not steps for any single party to take alone. But they will need strong and proactive leadership from clients and developers in collaboration with their supply chains.

Supply chain resilience: Arcadis 8 key steps



SECURE

1. Tactical scenario planning
2. Secure essential resources
3. Mitigate operational & programme risks

RECOVER

4. Accelerated supplier management
5. Refreshed business continuity management plans

PREPARE

6. Embedding resilience
7. Strategic supply chain mapping
8. Digitizing supply chain management

SECURE: Steps to be taken right now:

1. **Tactical scenario planning.** Available levels of inventory and resource capacity should be rapidly assessed against immediate and emerging demand requirements, for critical supply chains. A range of tactical scenarios should be analysed, recognising demand uncertainty and potential supply chain constraints and failures. Deliverability of goods is also vital to consider, particularly safety critical goods and those which may be required in the event of site shutdown. Often, the data to assess impacts across all levels of a supply chain will be limited, and expert judgement will be required.
2. **Secure essential resources.** The tactical scenario planning should inform schedules of essential resources, materials, and products required for business continuity. Many of these will be known already, but there may be hidden risks further down supply chains. As capacity starts to contract, price spikes may be experienced but it may still be possible to secure capacity at reasonable contingent cost.

3. **Mitigate operational & programme risks.** Even if essential resources can be secured, residual risks to the delivery of both programmes and operations will remain. Rescheduling or de-scoping of work may need to be discussed proactively with customers and investors, and careful risk assessment will increase the chances of agreement being reached. Existing relevant contract clauses will need to be interpreted, such as those covering insurances, payment, force majeure and frustration. The parties should consider any changes required to support business continuity including, for example, extensions of time and revised payment terms. In some cases, critical suppliers may need direct financial support.

RECOVER: Steps to be taken next:

4. **Accelerated supplier management:** When the crisis subsides, transparent and trusting supplier relationships will be essential to re-establishing work programmes and clearing backlogs as quickly and efficiently as possible. Many clients may have focused on getting 'closer to fewer' suppliers in recent times, but active and scaled up leadership may be needed across all tiers to support suppliers with rebuilding capacity. Clear and secure demand signals, advanced orders, capability development, and improved payment terms are all levers to consider. Real and perceived risk could become a straight-jacket for recovery, and brave leadership will be needed to avoid that.
5. **Refreshed business continuity management plans.** Many organisations will have learned that their pre-existing business continuity plans don't go wide or deep enough. Refreshed and broadened plans will help build confidence that future shocks and disruption can be more readily accommodated via, for example, 'ready-to-go' and tested home working and staff wellbeing protocols, and emergency command and control structures. A mature business continuity approach could become a key accreditation criteria requirement for future supplier qualification and selection.

PREPARE: Longer-term steps to prepare for a post Covid-19 world:

6. **Embedding resilience.** A review of the post Covid-19 landscape will be essential e.g. do assumptions still apply? Has risk increased? Is the supply chain still intact? As lessons are learned, organisations can look ahead and consider the various options for embedding future resilience. These options will include **redundancy** (such as increased stocks, spare capacity, and supply competition), creating **resistance** (e.g. automation, so shocks no longer have an impact), and improving **recovery** (such as via rapid response protocols). Commercial mechanisms can also be used to increase reliability, for example improved payment terms which reduce suppliers' cashflow exposure.

7. **Strategic supply chain mapping.** Optimising resilience requires a **whole-system approach**, looking across all layers of a supply chain. Strategic supply chain maps will be important for critical programmes and spend categories, to be used dynamically to identify possible points of failure in future shocks. Such mapping also allows truly strategic category management, allowing buying organisations to be more informed about barriers to innovation, efficiency, and competition in their supply chains.
8. **Digitizing supply chain management - implementing 'smart' forecasting and analytics.** Cloud-based supply chain management systems can provide advanced prediction and indication of the consequences of disruption. Analytics can be configured to identify the likely effectiveness of the resilience measures which are in place, and indicate any mitigating action that is required before it is too late. This should, however, be used to inform experienced decision makers, rather than replace them.

Arcadis brings a wide range of relevant tools and experience to this approach. We have created Business Continuity and Incident Management Plans for multiple clients, and have a supply chain resilience model to optimise improvements. We have the knowledge to create robust supply chain maps in our sectors, and carry out informed risk assessments with targeted mitigation. We also bring extensive digital transformation capability, allowing us to select and design the right digital enablers, and embed them into day-to-day operations.



Moreover, Arcadis is fully committed to the long-term health and success of our clients and their people, and of the sectors in which we work. We believe that supply chain management is at the heart of that success, and that the steps set out above will make the difference. The **Secure** actions are clearly the most urgent, but we are already starting to support clients to look ahead to the **Recover** and **Prepare** phases.

Arcadis procurement & supply chain capability

Our experts in procurement and supply chain management work closely with broader technical, delivery and consulting skills from across our business to providing both market insights and practical implementation in the public and private sectors. We follow best practice process & governance arrangements, transferring these to our clients, and mobilise transformational contracts ensuring smooth transition into supplier management. We tailor our solutions to client specific needs & circumstances and deliver with pace and agility.

Our end-to-end service offer includes:

- Intelligent Clienting:** embedding new capabilities, tools and ways of working in our clients' organisations, including skills and operating models to meet future business resilience needs
- Supply Chain Strategy:** creating strategic change and actionable plans to align supply chains with clients' business objectives and priorities, and recognize market opportunities and risks
- Procurement Delivery:** a fully comprehensive transformational procurement service, which delivers robust and efficiently priced contracts, with pace, transparency and assurance
- Supply Base Management:** building on excellent commercial contract management to provide proactive and continuous improvement of safety, risk, resilience, value and performance.

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