Considering the potential business impacts of the COVID-19 outbreak

22 March 2020
The COVID-19 outbreak has been declared a pandemic by the World Health Organization, causing huge impact on people’s lives, families and communities.

As the international response continues to develop, we know that organisations are facing potentially significant challenges to which they need to respond rapidly.

We are working closely with organisations globally to help them to prepare and respond, by sharing our experience in working with companies, governments, regulators, NGOs and international organisations around the world to respond to some of the most high profile outbreaks (including Ebola, MERS, SARS and bird flu).

Common issues that many organisations are facing from COVID-19

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<th>Workforce</th>
<th>Supply Chain</th>
<th>Sales</th>
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<td>Protecting wellbeing and welfare, especially of those living in affected territories</td>
<td>Re-routing, delays, disputes and knock-on impact on customers</td>
<td>Decline in sales leading to cash flow and covenant issues</td>
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<tr>
<td>Operations</td>
<td>Travel</td>
<td>Regulation</td>
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<tr>
<td>Reduced resilience in key functions, infrastructure and services, or locations become unavailable</td>
<td>Restricted or prohibited to some locations, and impacting business and leisure demand more generally</td>
<td>Compliance challenges in certain sectors</td>
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Potential COVID-19 scenarios to inform crisis planning

**HOT SPOTS**
Rapid rise in cases avoided. Ongoing disease hotspots emerge, but are contained by public health measures.

**Assumptions:**
- Not all cases are detected, allowing spread at a reduced frequency.
- Successful testing, contact tracing and quarantine of cases prevents an ongoing rapid increase in cases.
- These successful public health measures must be mirrored in all affected countries.
- Presymptomatic and mild cases prevent complete containment of the virus until a vaccine becomes available.

**Timeframe:**
- 12 to 18 months, timing of peaks uncertain.

**EARLY PEAK**
Rapid rise in cases, peaking in Q2 2020.

**Assumptions:**
- Reflects the UK government’s previous mitigation strategy.
- Assumes case isolation and quarantine, but no social distancing.
- Cases peak in summer 2020, declining as population immunity levels increase.
- Severe cases significantly exceed health system capacity.
- Potential for further peaks depending on the seasonality of the virus.

**Timeframe:**
- 12 to 18 months, peaking within 3 months.

**DELAYED PEAK**
Public health measures spread the peak over a longer period of time.

**Assumptions:**
- Reflects the UK government’s current suppression strategy, which show a peak in Q4 2020.
- Testing, contact tracing, quarantine and social distancing controls in place and consistently adhered to, spreading the impact of the disease over a longer period of time.
- Impact on health systems somewhat reduced compared to early peak scenario.

**Timeframe:**
- 12 to 18 months, peaking in 6 to 9 months.
Setting up your COVID-19 response: example strategy and operating model checklist

**Strategic considerations**

- Establish a cross-functional steering committee, led by a C-suite member. Ensure senior representation from business divisions plus specialist leadership such as HR, Legal, IT, Operations, Risk, Communications, Finance, Health and Safety, Procurement, Sales and Crisis and Business Continuity.
- Establish and agree process for decision making and agree critical milestones.
- Determine reasonable worst case scenarios to inform planning assumptions. Consider likely trigger points for decision-making. Review and refresh Crisis, Continuity and specialist plans (e.g. pandemic/COVID-19). Stress test assumptions and exercise plans.
- Prepare your core Incident Management Team (IMT) to coordinate response and containment efforts.
- Map critical stakeholders and agree communication strategies for them. Base the immediate response and communications on established facts from reliable, trusted sources.
- Appoint functional workstreams and owners, and align activity with response objectives.
- Ensure alignment with organisation reputation, purpose and values (e.g. supporting the wider community response).
- Agree communications to staff and stakeholders - and feedback loops. Balance transparency and preparedness with not wanting to appear to be over reacting.

**Set up an Incident Management Team to coordinate your response**

- Set clear roles, accountabilities and objectives.
- Agree meeting cadence and team ways of working.
- Agree communications and stakeholder engagement strategy.
- Use approved sources of information to monitor the spread of the virus and emerging clusters of cases.
- Embed an incident reporting mechanism.
- Identify critical decision triggers to manage and contain the virus (e.g. travel restrictions; office closing/work from home; meeting restrictions/virtual solutions).
- Deploy a rapid response process for your own cases and develop personnel recovery plans.
- Verify that technology infrastructure can support remote operations.
- Review supplier service availability and resilience.

**Scenario planning**

- Evaluate COVID-19 specific scenarios for your organisation. Identify potential risks and assess impacts.
- Ensure business continuity plans include arrangements and processes for handling an infectious disease outbreak, epidemic and pandemic.
- Model the financial impact of scenarios and potential triggers for urgent action (e.g. breach of covenants).
- Identify strategic interventions to stabilise your organisation.
Setting up your COVID-19 response: considerations (1)

**COVID-19 response strategy**

### Workforce

**Protect your people and plan your workforce**

- Have you identified the critical work which delivers your P&L, the workforce that do this and the capacity of the organisation to move labour to sustain those critical activities?
- Do you have full visibility of your people (geography, nationality, visa, etc.) and the right processes and systems in place to track and move your workforce, where required, as well as the legal / tax implications of doing so?
- Do you have a system in place to monitor changing laws and regulations (e.g. travel restrictions) affecting your workforce?
- Have you completed workforce profiling to understand where work levels are likely to decrease or increase due to impact?
- How can you enable flexible / remote working arrangements in the event of quarantine and do you have the necessary infrastructure in place?
- Is a comprehensive set of people policies in place that address the risks identified by your scenario planning and any local, legal or regulatory requirements?
- Have you reviewed your HR policies to understand where risks are exacerbated / mitigated and the extent to which this supports / undermines the proposed response (e.g. flexible working, immigration, travel, and other relevant policies and regulations)?
- Have you put risk mitigation around employees working whilst ill and causing further spread by considering the ability to enforce policy changes quickly?
- Do you have a strategy to manage any defined benefit pension plans, as stock market and bond yield falls will have led to increased deficits at the same time that trustees and regulators are under increasing pressure for cash funding?

### Operations and supply chain

**Maintain business continuity and protect your supply chain**

- Have requirements of key suppliers, such as Facilities Management and IT service providers, been reviewed in light of any requirements that may change during a pandemic period (e.g. increased cleaning regimes)?
- Have you liaised with key third parties to ensure they will be able to continue to deliver desired service levels during the coming period?
- Are you monitoring exposure trends and restrictions against your supply chain?
- Have you performed an operational risk assessment and considered the impact of disruptions on critical business functions?
- Do you have visibility of critical supply chain parts and data to properly assess the potential damage and create immediate plans?
- Do you have any third party single points of failure?
- Have you performed a risk assessment across all supply chain tiers?
- Have you considered using machine learning to find patterns that can be indicators of risk - or opportunity?
- Have you evaluated strategies for alternative sourcing, including the impact of tariffs to cost?
- Do you have a communications strategy in place for key supply chain stakeholders?
- Have you activated product redesign/material certification resources?
- Have you conducted scenario planning exercises to understand the operational implications, both financial and non-financial, of various scenarios?

### Communications strategy

**Provide clarity to employees and stakeholders and enable business continuity**

- Have you created an internal and external stakeholder map for key communications (considering staff, customers, suppliers, regulators, etc)?
- Do you have a clear communications strategy that can be implemented in a crisis to protect your reputation and maintain the trust of your stakeholders?
- How are you communicating with your employees?
- How are you keeping employees regularly informed about the latest updates and guidance?
- How are you providing reassurance and consistent messaging to all staff and showing a duty of care?
- How are your crisis communications aligned with your organisation’s culture and communications requirements?
- How can best practice approaches be tailored to suit your organisation?
Gain insight and assess your exposure to risk

- Do you understand how an affected country/region might impact the commercial performance of your industry, your business, or that of your suppliers?
- Do you understand the potential impact of a global or country-specific slowdown, combined with Brexit, on your business?
- Are you able to access robust data insights to underpin key decisions that you need to make?
- Do you have the time and skills to digest and analyse existing data sources in new ways to enable decision making?
- Are you able to identify new data sources that may be required?
- Are you able to rapidly automate data capture processes for new data sources?
- Can you efficiently blend datasets to reveal insights?
- Do you have the skills and experience to manage sensitive data responsibly?
- Do you have models that answer your questions or issues, including challenging and validating data and model assumptions?

Balance customer care with commercial priorities

- Have you updated your sales and demand planning strategy, including assessing changes in customer behaviour (e.g. buyer habits)?
- Have you formed a coherent customer communications plan?
- Does your plan help to preserve and enhance customer loyalty?
- How does your health and safety plan extend to customers?
- Do your policies reflect the need to protect both your customer and commercial interests (e.g. updating policies to be flexible on cancellations and changes, rationing products with insufficient stock sales to top customers)?
- Have you evaluated your competitive position under the new environment, identifying both risks and opportunities?
- Have you identified and created an action plan against the core marketing and sales priority areas (including inventory planning, pricing strategy and discounting)?
- Can you innovate and invest in available sales channels (e.g. online vs in-store)?

Join-up efforts on a cross functional basis to ensure business continuity and resilience

- Do you need to financially or operationally restructure your business to reduce risk and protect value?
- Have you updated your working capital plans and forecasts?
- What contractual options are available to you as the customer, or could be used against you as the supplier?
- What contractual levers do you have available to suspend, terminate or change the terms of supply (e.g. invoking force majeure provisions, termination provisions and step-in rights)?
- What access do you have to emergency funding, increased production funding needs or government supported financing, tax and liquidity e.g. CCFF, CBILS, tax deferrals, rates holidays, etc.?
- Have you considered the tax and regulatory implications of moving people to alternative locations? What systems and processes do you have in place to monitor movement of your employees?
- What insurance policies and access to emergency insurance do you have in relation to your scenarios (e.g. notifiable disease implications)?
- What technology infrastructure/resilience capabilities do you have?
- Can your IT infrastructure support vast remote access demand?
- How are you securing and maintaining your IT systems and data?
- Have you assessed whether the changes in the IT environment would increase the risk of a cyber attack?
- What are your triggers for making disclosures to the markets?
- Have you considered the personal and corporate tax and regulatory implications?
How PwC can help

The following slides set out ways in which PwC might be able to help you.

Some of the services outlined are not permissible if we are your auditors.

Please speak with your usual PwC contact if you have any questions about auditor independence rules.
We can work alongside you to tackle the challenges you face in responding to COVID-19

<table>
<thead>
<tr>
<th>Crisis response and management</th>
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<tbody>
<tr>
<td>• Establish a <strong>crisis response structure</strong> with established workstreams, clear responsibilities and accountabilities.</td>
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<tr>
<td>• Develop <strong>likely and reasonable worst case scenarios</strong> and their potential impact, to support crisis and response planning.</td>
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<th>Workforce</th>
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<td>• Assess potential impact and develop options to identify and move labour with the key skills to support the P&amp;L of the organisation.</td>
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<td>• Proactively manage where, when and how disruption will impact the availability and effective utilisation of skills in the business.</td>
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<th>Communications strategy</th>
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<tr>
<td>• Develop a <strong>rapid communications plan</strong> and approach to build and maintain trust and reputation during the crisis for key stakeholders.</td>
</tr>
<tr>
<td>• Tailor <strong>best practice templates</strong> and <strong>communications materials</strong> such as emails, FAQs and intranet.</td>
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<th>Customers and revenue</th>
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<tr>
<td>• Revise your <strong>sales strategy</strong> to deal with evolving customer behaviours and competitive environment (risks and opportunities).</td>
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<tr>
<td>• Prioritise actions to <strong>protect customer relationships</strong> and commercial interests.</td>
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<tr>
<td>• Model customer <strong>behavioural change</strong>.</td>
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<th>Operations and supply chain</th>
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<tr>
<td>• Perform an <strong>operational risk assessment</strong> and consider and plan for the impact of disruption on critical business functions.</td>
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<tr>
<td>• Understand your COVID-19 <strong>supply chain risks and impacts</strong>, including third party suppliers.</td>
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<th>Focus on data</th>
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<tr>
<td>• Identify <strong>data needs</strong> and develop protocols for data extraction, preparation and analysis.</td>
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<tr>
<td>• <strong>Model the impact of scenarios</strong> on industry sector or business-level commercial performance, and stress test commercial revenues against downside economic scenarios.</td>
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<th>Head office functions</th>
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<tr>
<td>• <strong>Legal, IT, Commercial and Insurance</strong>: review existing insurance coverage, IT infrastructure and resilience, force majeure, contract clauses.</td>
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<tr>
<td>• <strong>Finance, Treasury and Tax</strong>: financing (private or government), restructuring and cash-flow.</td>
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<tr>
<td>• <strong>Investor Relations</strong>: market disclosure.</td>
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COVID-19 specific support

We can tailor and flex our role to satisfy your specific crisis response needs, wherever you need us most. We want to provide the specific support that you need to sustain your business.

Illustrative roles we often provide on crisis projects

- Crisis strategy guidance and/or quality assurance
- Project Management Office (PMO) and data insights
- Workstream lead(s) (e.g. communications, supply chain, employment policy, data and analytics, tax, legal, restructuring, immigration and wellbeing, etc.)
- Surge capacity including managed service capabilities for critical services

We can provide local resources, insights and knowledge from the locations that matter to you

- UK network: 22,601 people working in the UK
- European network: 88,064 people in Europe
- Our global network: 276,005 people worldwide

- 936 partners
- 316 European offices
- 736 offices
- 157 countries
COVID-19 scenario planning and review workshop

We can help you develop a robust and commercially astute response to minimise the negative impacts of COVID-19, maintain the delivery of your critical business processes and protect your people and assets. The scenarios we help you draw up will be based on fact-driven insights from our economics and epidemiology experts.

Our approach

We facilitate a half/full-day workshop, which could be virtual, to support your assessment of your reasonable worst case scenarios. Our experts will work with a cross-functional team from your organisation, and bring knowledge and experience to provide insight, help identify previously unconsidered risks and also support your response.

01

We will help you identify the reasonable worst case scenarios for your organisation.

We will use a combination of your own planning, open source material and our experts' views on how the situation may develop to inform this discussion and identify a list of scenarios which merit more focused planning.

02

We will support you to identify and prioritise potential risks and impacts around:

- People
- Workplace
- Legal/Regulatory/Tax
- Supply and distribution chains
- Commercial/Sales/Customers
- Finance/Treasury
- Reputation
- Technology

Prioritise by assessing the impact and likelihood to inform allocation of effort and resource.

03

We will facilitate the consideration of mitigating actions and preparedness plans:

1. Identify actions to mitigate risks.
2. Where risks cannot be mitigated, consider preparedness activities. This may be linked to crisis management, pandemic and BCM plans.
3. Agree clear owners for the risks identified, and key actions that must happen now.

As part of this discussion, we will also consider triggers that will require decisions to be escalated to the senior decision-making team (e.g. Crisis Management Team or the Board).

Objectives

- Agree likely and reasonable worst-case scenarios.
- Identify potential risks and key impacts.
- Assess current levels of preparedness, including other sources of information which could be leveraged.
- Identify mitigating actions against the key potential impacts, identify and prioritise actions which need to happen now and agree clear owners.

Tailoring our approach

We recognise that clients are all in different states of readiness and so, for some clients, the workshop is used to review and challenge both their scenarios and existing plans.
Working capital and cash management

Common challenges and worries

- Unclear cash position and cash forecasts, including currency effects.
- Unclear eligibility for government supported financing, tax and liquidity e.g. CCFF, CBILS, tax deferrals and rates holidays, employer grants and refunds, etc.
- Developing robust contingency plans and what if scenarios to model impacts (e.g. cash needs, customer demand changes, supply chain failure, credit insurance withdrawal, restricted x-border payments, regulatory change, etc.).
- Understanding FX risk, due to changes in supply chain or customer flows.
- Weak cash controls: key cash approvers do not recognise that 'business as usual' principles no longer apply (e.g. ensure on-time customer payment or prioritising supplier payments align with business critical activities).
- Liquidity or FX management tools are withdrawn or become unavailable - such as bank accounts, facilities and derivatives.
- Difficult relationships with struggling customers who have liquidity issues/financial instability.
- Unclear who critical suppliers are, to continue your operational delivery.
- High invoice error rates to customers, causing delays in customer payments.
- Fragmented sales, production and cost planning - unable to assess current sales demand with adjusting production schedules and purchasing.
- Unable to assess options to defer existing purchases or forward orders, such as consequences if credit insurance cover is pulled.
- Responding to requests from other financial stakeholders where additional liquidity is being sought.

Suggested next steps

Although each situation, organisation and set of stakeholders is different, we have found the following steps are key to success:

- Develop a dynamic, rolling 13-week short-term cash flow forecast (“STCF”) and ongoing process.
- Flex the STCF to model various scenarios and mitigating actions including the impact of FX on cash position and covenants. Develop a list of mitigating actions that could be taken.
- Identify any net funding shortfalls and government financing, tax and liquidity options, engage shareholders and funding providers.
- Review current cash and FX reporting processes and controls (e.g. authorisation limits, payment approval processes, hedging strategies).
- Prepare a list of key suppliers and critical payments that must be made to ensure operational continuity.
- Establish cash conservation levers, including existing purchase order review and purchasing needs to assess the ability to cancel or defer.
- Develop a clear communications plan for external stakeholders to accompany any potential ask.
- Establish inventory flow visibility and optimise stock management in the face of potential lead time changes and demand volatility.
- Identify pockets of excess working capital and establish initiatives to quickly convert this into cash.
- Identify surplus assets that could provide short-term liquidity.

How we’ve helped others

- Cash flow and purchasing control. We developed and implemented cash flow reporting and purchasing controls for a company that had been acquired out of an insolvency process.
- Cash collection support. (1) Rapidly deploying collections teams to collect over $500m in cash, plus robust analytics for management to manage performance; accelerated and increased cash collections by 30% in just five weeks.
- Accessing government funding. For Brexit, we rapidly processed c.3,000 applications from businesses for ‘customs intermediary’ government grants to support EU Exit preparations.
- Cash forecast modelling. Short term cash forecasting models to inform measures to liquidate excess inventory and reassess production.
- Manage FX uncertainty. Identified opportunities and mitigated cash impacts and arranged new facilities with lenders caused by FX volatility on cash-flows, key metrics and derivatives.
- Payment control and monitoring support. We rapidly deployed a framework to control the flow of outgoing payments, based on an assessment of supply chain risk and supplier criticality.

Typical areas we can support you on:

- Short-term cash flow review
- Effective cash management and FX risk strategies
- Rapid cost reduction
- Working capital management and optimisation
- Operational restructuring

- Financial restructuring
- Supply chain review
- Business planning
- Financial risk analysis and response
- Scenario modelling

- Independent business reviews
- Treasury, FX and cash management advisory
- Debt and capital advisory
- Accelerated M&A/managed exits
- Modelling of cash tax forecasts

COVID-19 - Response considerations

22 March 2020

PwC
Workforce

Common challenges and worries

- Limited insight into who truly drives your P&L and who in the workforce could move to sustain those activities.
- Limited visibility of your workforce’s key skills and capability of processes and systems to move your labour to sustain the value-creating areas of your business.
- Limited insight into changing laws and regulations around COVID-19, hindering your ability to move people appropriately to sustain the value-creating areas of your business.
- Inability to predict where the likely current and future disruption will have the greatest/least impact across your business and what this means for organisational skills gaps and therefore your ability to maintain operations.
- Lack of remote working infrastructure to support the critical areas of your organisation.
- Lack of specific COVID-19 policies/communications to effectively support the desired response, exacerbating the issue (e.g. no employee visibility of the remote working response/policy to COVID-19).
- Lack of policy change agility, required to implement and embed policy changes to effectively combat disruption.
- Balancing business needs with your pastoral duty of care to employee wellbeing.
- Defined benefit pension deficits. With stock market and bond yield falls, defined benefit pension deficits will have grown dramatically, at the same time as regulatory pressure on cash funding is increasing.

Suggested next steps

Stand-up a dedicated team to manage and implement the response. Pull together an overarching and flexible plan and team to action the following:

- Define critical clusters of activity/work to deliver on the P&L, establish which employees do this work and which employees across the organisation also have the required skills to support it.
- Define the current and required skills in your workforce and the processes/systems which are needed to deliver the response effectively (including changes required to those systems/processes).
- Accelerate upskilling to cover skills gaps in the value-creating areas of the business.
- Move employees within the organisation to sustain the value-creating areas of the business.
- Identify and respond to legal/regulatory updates, including effective governance to monitor and influence your organisation’s response.
- Proactively anticipate where disruption is most likely to impact the organisation and refine responses accordingly.
- Communicate early with employees on policy and process changes, engaging with Trade Unions where appropriate.

How we’ve helped others

- We’re supporting a global technology company to understand its legal obligations - in relation to the COVID-19 outbreak - to its employees across over 80 countries, plus its extended workforce of contractors and agency workers. This specifically includes pay, reporting obligations, duty of care and health and safety obligations internationally.
- We helped a global lighting company identify, rapidly re-skill and relocate large segments of its workforce, in response to the rapid disruption resulting from an influx of new competitors to its core business offering.

Typical areas we can support you on:

- Rapid strategy decode and operating model
- Workforce discovery
- Employment law and immigration
- Strategic workforce planning
- Policy, process and HR systems assessment and reconfiguration
- Labour and talent mobility
- Skills mapping and workforce architecture
- Employee engagement and communications
- Pensions and employment tax
Operations and supply chain

Common challenges and worries

- Labour availability along the supply chain.
- Volatile demand caused by panic buying.
- Critical service providers - understanding their availability and the ability of platforms to remain at an acceptable level of operation.
- Scarcity of critical parts or ingredients to support continued manufacturing.
- Understanding availability and constraints of supplies.
- Defining supply priorities of critical products.
- Routing products globally, whilst avoiding closed markets and considering increased security and screening.
- Inventory issues disrupting supply model due to a slowdown in global supply chains.
- Loss resolution - understanding and getting a fair and equitable result.

Suggested next steps

- Use modelling to aid decision making and identify opportunities for labour, logistics, cost, service and flexibility improvements as well as understand direct and indirect tax implications.
- Identify supply constraint remediation levers and validate them (e.g. enable alternate suppliers, secure overtime or expedited freight) and cost alternative supply chains.
- Build a tiered factual base of supply, establishing what's available and constrained, and set the mechanism to regularly update the data.
- Understand the impact that delays could have on supply/production lead-times, and consider your inventory position.
- Review how border requirements differ for alternative shipment routes.
- Insurance claims - review and implement actions.
- Use technology aided re-tendering to appoint new suppliers.

How we've helped others

- Dynamic dashboards. We have rapidly built dynamic dashboards to track and monitor supply and network risks.
- Warehousing optimisation - projects to allow sites to operate in excess stock/lower labour scenarios.
- Analysis of lead time and critical inventories to maximise customer service levels on critical products.
- Resilience assessments of critical third party service providers and suppliers, implementing mitigation/recovery plans.
- Provision of augmented resources to deal with immediate critical tasks.

Typical areas we can support you on:

- Dynamic risk assessment and business continuity planning to prepare you for the coming months
- Credit assessments of critical parties to identify potential risks of supplier insolvencies
- Proprietary rapid supply chain analytics platform (SCOOP) to provide an understanding of supply chain to inform decision-making
- Margin impact/revenue displacement to understand the impact on profitability/cash flow/tax profile
- Tariff assessments and mitigation for changing supply chains, including support with border requirements for alternative shipment routes
- Supply chain resilience and network agility testing; to ‘stress test’ how well it would operate under additional pressure
- Deploy AI and RPA technology to relieve stretched workforce of transactional tasks
- Supply chain intelligence to support dynamic routing of product and introducing new suppliers
Case studies

We are supporting many clients across a range of industries in their COVID-19 response and planning. Below we set out some of our broader crisis and resilience experience.

Connecting private sector global conglomerates to the public sector and NGOs in a health crisis

During an international health outbreak, a private sector group of global companies formed together with public sector and NGOs to act as a platform to receive updates, exchange information and share views in response to the crisis. Individual country groups were also formed and worked closely with the public sector on the ground to provide operational assistance to help combat the disease.

We provided technology-enabled support to maximise the effectiveness of communications in a secure environment - including allowing documents to be shared and discussed online, therefore facilitating communication and decision making at the highest level.

Communicating with health workers during a virus outbreak

In the wake of a prolific virus outbreak, a government client needed to rapidly reach out to its 270,000 health workers across the country. This work was part of the '100 Day Plan' engagement to assess the current Ministry of Health strategy, and make recommendations for change. We worked directly with senior government officials and developed the internal communications strategy and plans for the Ministry of Health. We drafted content for internal communications on raising awareness of the virus in non-affected hospitals. This was then expanded to inform all health workers of the risks of another outbreak that was taking place on another continent whilst our team was on the ground. Through this work, we included a number of new communication channels to help drive employees online, including communication hotspots in sites across the country.

Providing key information to combat a potential pandemic

A critical component of an effective response to a health crisis is to have accurate epidemiology information for use by the scientific community and the Ministry of Health. In responding to a potential pandemic situation, our client needed assistance with capturing and providing such key information. We designed the information capture and quality assurance processes from hospitals’ historic and contemporary records. We built a repository for the interrogation and archiving of information and supported the epidemiology community with ongoing analysis from the information set. We managed a daily reporting process for the government, capturing new cases and providing updates on existing cases by communicating with private and public hospitals nationally.

As a result, the government and global health agencies were able to provide an effective response to the health crisis and provide worldwide assessments as to the likelihood of a pandemic situation emerging.
# Key contacts

## COVID-19 crisis response team

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<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Information</th>
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<tbody>
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