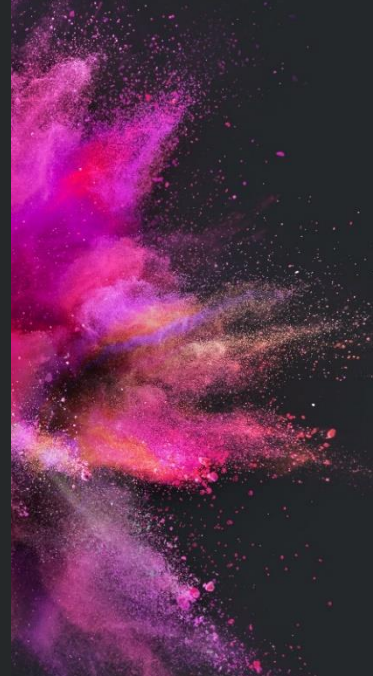


## Resilience Perspectives Post 2020

Insights into how different industries dealt with the impact of the pandemic and lessons learnt



### Introduction

In 2008 when Lehman Brothers had just collapsed and the market looked like it would not recover, the world economy came to what seemed like a standstill. The realisation that there was no safety net forced larger institutions to remodel age old business departments. Given the harsh reality of the situation there was no way that industry pundits could have foreseen the rapid recovery that followed, breaking financial simulation models and leaving analysts dumbfounded at the absurdity of the events they have come to witness.

Covid-19 has been a crisis in a different order of magnitude. This is a once in a generation pandemic, forecasted by some far-sighted observers, and yet ignored by most governments and industries. It has torn through sectors, testing businesses to the utmost limits of their agility and adaptability, and has greatly impacted Small to Medium Enterprises (SMEs). The businesses that were lucky enough to weather the waves of lockdowns have been permanently changed; Changed in ways that senior analysts or risk departments could never have calculated, resulting in very differing fortunes - some companies not surviving while others achieving once in a lifetime growth that has propelled them into new leadership positions among their peers e.g. Zoom, and BYJU (the online education platform). Other ever-growing high performers have continued to do well, e.g. Amazon whose net sales for 2020 grew by 38% to \$386bn and operating income rose to \$22.9 billion, up 50.8% year over year<sup>1</sup>. Netflix<sup>2</sup> reported that it added a record 37m memberships in 2020. Consequently, its revenue grew to \$25bn up 24% year over year, and operating profit was \$4.6 billion up 76% year over year.

As we welcome a new year, energised with the expectation of vaccines eradicating the threat of Covid-19 globally, it is worth looking back at the year and exploring how industries were affected by it and just how differently they responded. We also examine the role of technology in the pandemic and how businesses in different sectors are leveraging to survive and thrive in the age of the pandemic. Finally, we will capture lessons learnt to help you with planning for resilience in the future.

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Written by:  
Sarah Burnett, Partner, Head of  
Technology Immersion, and  
Ahmed Tariq, Technology  
Analyst

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Sources:

<sup>1</sup> [Amazon](#)

<sup>2</sup> [Netflix](#)

## Change in the face of a pandemic

Our research indicates that in the wake of the pandemic organisations have implemented big changes in resourcing as well as organisational structures and work models. Mitigation of most organisational risks have cut deep into work forces, re-assigning responsibilities, and maximising clauses within employee contracts. At the same time frequent reviews at all levels of some organisations have led to restructuring resources and revaluating the de rigueur of those organisations.

Table 1 summarises some of the findings.

Industry	Challenges	Examples of strategic responses & measures
Local authorities	Local Authorities (LAs) continue to be overwhelmed by the sheer volume of challenges that they face as revenue streams dry up. Income has shrunk with citizens spending less money on parking, arts and culture and leisure centres, and business rate revenue is dropping drastically. Costs are high, because facilities such as local bus services have to be maintained. Additionally, authorities have had to digitalise services to reduce person to person interactions, and yet LAs have to continue supporting other forms of service delivery to ensure they are still accessible to those who are not tech savvy. Resistance to new technology continues among many employees who are more comfortable with the status quo.	LAs have increased investments in technology to create capacity and increase service efficiency, as well as improve capabilities for staff working from home. Partnerships to grow the tech sector have become the priority to generate jobs, apprenticeships and wealth. Work is in progress across many LAs to increase collaboration across sectors to realise and share benefits. Other measures include maximising use of assets, e.g. shared use of buildings, to generate revenue.
Government departments	Huge backlogs of cases have built up in departments due to the sheer volume of work and staff absences caused by the pandemic e.g. applications for services such as Disclosure and Barring Service (DBS) and Land Registry. The increasing use of technology to address immediate requirements has raised concerns in some instances where developments lacked roadmaps for the future and the productionising of these solutions in the longer term.	Departments are utilising data available for insights to spot opportunities, cut costs, and improve outcomes. Departments are embracing agile ways of working to deliver continuous improvement over the traditional big bang approaches. Some departments have come under more pressure with the need for innovative solutions e.g. HMRC needing to manage new financial support packages. This is covered in more detail in the case study section of this paper.
Healthcare	Apart from the enormous pressure of providing actual healthcare in the pandemic, challenges have included the visibility of information and accountability within the supply chain for medical products and supplies. Furthermore, the sector has been slow to adopt advanced data management and continues to face challenges with the lack of data integration between different healthcare stakeholder groups such as hospitals and social care. In the pandemic, demand for information has gone up along with requests for information increasing, and a complex and wide array of sources to be tapped <sup>3</sup> . The sector continues to seek solutions to deal with on-going challenges such as staff absence management during the Covid-19 crisis, e.g. at Norfolk & Norwich University Hospital (NNUH) <sup>4</sup> as well as managing a rise in call outs with increasing levels of suicides and domestic abuse.	The trials and tribulations of the healthcare sector has been covered well in mainstream media. To recap, in the UK, the sector has taken advantage of the shared services model to centralise and pool resources e.g. through NHS 111 call answering service. GP consulting has gone virtual either by phone or via conferencing apps. In hospitals, wards have been redesigned with more space created for COVID-19 patients while separating others from the disease. Staff have been retrained to work in critical care units and there has been a huge increase in data management for analysis.

Table 1  
Impact of the Covid-19  
pandemic on different sectors

Sources:

<sup>3</sup> [gov.uk](https://www.gov.uk)

<sup>4</sup> [The Eastern Daily Press](https://www.eastern-daily-press.co.uk)

<i>Education</i>	<p>Education is also seeing major shifts. With the risk of teachers and students becoming super-spreaders, remote learning has become the go to channel. However, there are concerns that the model impacts low-achieving children more than others. Accordingly, education experts are advising schools to focus remote learning plans towards low achievers. Other concerns are about providing students with opportunities to develop their social skills and societal education that is important for their softer skills and all-round development. Many also simply miss their friends and there are concerns about mental health with feelings of isolation. The lack of international students means smaller universities and organisations are having a hard time keeping positive cash flow. Laid off or on furlough, adults have turned to online courses in droves to learn new skills.</p>	<p>There has been a big shift to online learning and teleconferencing as well as collaborating platforms for course planning and co-editing of homework and assignments among teachers and students. The number of online courses for children and adults of all ages have increased, with universities and media companies releasing new courses e.g. Imperial College London and BBC<sup>5</sup>.</p>
<i>Finance</i>	<p>The Financial sector in the UK has been one of the most affected. The Financial Conduct Authority (FCA) has released data that shows 4,000 firms in the sector risk failure due to COVID-19<sup>6</sup>. More companies have issued profit warnings so far in 2020 than in the whole of 2019, with 86% of Financial Services profit warnings in the first seven months of 2020 citing COVID-19<sup>7</sup>. Banks, finance and credit services, and property and casualty insurance companies are showing the most strain, while asset management and investment banking are more insulated. Challenges include borrowers asking to defer loan repayments as well as high volume emergency requirements to provide government funded business loans. Furthermore, with the growth in online shopping has come an increase in online fraud affecting cards and payments - an issue that underlines the need for investing in more capabilities to fight financial crime. Mortgage lenders are having mixed fortunes. While rising unemployment has increased mortgage defaults, demand for houses in suburbs and the countryside has increased loan requirements.</p>	<p>Organisations in the sector have had to review the workload and decide what could be done securely by staff working from home and what could only be done in the office. Risks have been reviewed in many different areas from revenue assurance and loan processing, to increased online fraud and cybersecurity. Many are boosting the level of digitalisation and automated processing of customer interactions and back office functions to cope with the growing workload. Contact centre interactions have gone up with personal banking agents for the rich having to be pulled in to boost capacity.</p>
<i>Professional services</i>	<p>Demand for consumer financial advisory services has shot up with many people needing to dig into savings, investments and pensions with some specialist pension advisory firms having backlogs of two to three months. In the UK, Stamp Duty, the tax on house buying, has been put on hold for smaller properties until March 2021. This has led to a buying frenzy as many city dwellers, fed up with being locked down in flats, have sought to move to the suburbs and the countryside. Estate agents, conveyancing lawyers, surveyors and mortgage lenders have had an extremely busy time of it.</p> <p>Lawyers have also been in demand to deal not only with conveyancing but with wills and probate as well, as families mitigate wealth risks against the possibility of the worst health outcome.</p>	<p>The sector has lagged in terms of technology adoption and continues to handle demand in traditional manual ways. However, some forward looking law firms, are reviewing their technology capabilities and implementing strategies to bring systems up to date and to equip staff to do more work electronically. The work-from-home imperative has been a major driver for change with firms investing in conferencing and collaboration tools. However some continue to face risks with old versions of software that are no longer supported by their vendors still in operation.</p>

Sources:

<sup>5</sup> [The World Economic Forum](#)

<sup>6</sup> [Financial Times](#)

<sup>7</sup> [EY](#)

<i>Transport</i>	<p>As lockdowns commenced, the public transport infrastructure that keeps London moving needed more funding not to grind to a halt. Sadiq Khan, the mayor, demanded a £4.9bn settlement from the government for the next 18 months to keep tube and bus services going so essential workers could travel to work.</p> <p>During the same period, the shift to online commerce has boosted transport of goods with many delivery and logistics companies hiring more drivers to satisfy demand.</p>	<p>Public transport companies have been investing heavily in digitalisation, e.g. electronic ticketing, and route and real-time travel information. However, these will not make up for the lack of passengers given that those people who can, continue to work from home.</p> <p>Measures taken by delivery and logistics companies have included enhanced parcel tracking and messaging services, with more services online, e.g. stamps and ordering, to increase the efficiency of their processes.</p>
<i>Retail</i>	<p>Closure of non-essential shops and the shift to online commerce has annihilated those that relied on physical shops alone, whilst online retailers have grown simultaneously. Many have had to boost their capabilities not just to take orders digitally and fulfil them quickly, but also to provide click and collect services. This is an area where capabilities have been stretched, with staff shortages due to the pandemic, and high demand leading to queues of customers waiting to collect their orders.</p> <p>Supermarkets have remained largely resilient and some e.g. Tesco, have significantly grown their online arm of the business. Tesco has reportedly more than doubled its online groceries business.</p> <p>Other retailers have joined forces to boost their online presence e.g. independent brick and mortar book sellers have come together to sell via <a href="http://www.bookshops.com">www.bookshops.com</a>, and Bicester village offers a collective online presence for its designer outlets.</p>	<p>Many are investing in technology to improve the customer's online journey to differentiate themselves from competitors. Technologies being deployed include size, and shape-based style advice and stock search in online clothing stores, and virtual personalised shoppers and assistants.</p>
<i>Hospitality, leisure and media</i>	<p>This sector has been severely affected with many pubs and restaurants going out of business. Cinemas, theatres, and other entertainment venues are also struggling, and some will never open again. On the other hand, TV streaming companies have benefitted hugely with the need for home entertainment growing exponentially. The thirst for box-sets has increased resulting in more royalties and revenues for providers of this entertainment channel.</p> <p>Another indicator is the rise in demand for Augmented Reality (AR) and Virtual Reality (VR) goggles. In Q1 2020 Facebook reported circa \$300million<sup>8</sup> in non-advertising revenue, with the number being largely driven by sales of its Oculus VR product range. CEO, Mark Zuckerberg has been quoted saying that the pandemic could kick off an acceleration for XR adoption.</p>	<p>Companies in the sector have tried a number of new approaches to continue to run their businesses. In the restaurant sector measures have included joining forces with food delivery services for takeaways e.g. the long-term partnership between AmRest and Just Eat announced in August 2020<sup>9</sup>.</p> <p>In the entertainment sector, actors and production teams have formed COVID-19-safe bubbles so that they can perform together. Some have turned to creating new content for on-line performances.</p>

## Resilience challenges in 2020

Businesses have adapted in various ways to a new battleground. They conceived different strategies and implemented them quickly, breaking down common work practises and doing what was necessary to weather the storm. In this part of the report we explore some of the challenges and how enterprises dealt with them.

### Working from home

The most profound change through the pandemic has been the relocation of work, from offices to homes for almost the entire office-based workforce. This happened more or less overnight due to the lockdown restrictions. The need for virtual collaboration tools and in particular, video conferencing saw vendor company stocks skyrocket, in contrast to office

Sources:

<sup>8</sup> [Global Data](#)

<sup>9</sup> [Emerce](#)

space providers' decline. Companies' own offices were laid empty with uncertainty of when staff would return.

The change has particularly impacted larger organisations that had invested in shiny, lofty office buildings in expensive city locations. They had to invest in completely new out-of-box infrastructure and to assure cybersecurity of a geographically dispersed workforce. In addition, adopting management methodologies for remote working as well as health and safety considerations was of importance given that business operations had to be conducted by staff at home, with best case scenarios of home offices equipped with desks and chairs, and worst case scenarios of staff working in shared flats, with inadequate office furniture, laptops balanced on their laps and possibly working on their beds. Upskilling and investing in collaboration software became a necessity to allow a complete and frictionless transfer over to remote work and management, even then taking weeks before tech support departments could finally keep up with the raw demand of all the issues being reported. Demand for home office equipment rocketed, and for a time resulted in a shortage of stocks in essential items such as laptops, screens and desks.

### Tackling supply chain issues

The pandemic has impacted supply chains from raw materials to manufacturing and logistics. While demand for some items such as cars dropped, demand for other products, such as personal protective equipment and hand sanitisers, surged exponentially leaving supply chains in disarray.

Organisations had to revisit their orders and prioritise essential goods over others. Product catalogues shrunk accordingly giving priority to the production of key goods. This effect was most visible in supermarkets, where after the panic buying subsided, the shelves had fewer varieties of products, e.g. biscuits and luxury food items, but more of the essentials.

Some suppliers turned to more analytics to better match supply to demand e.g. Sainsbury's, the supermarket chain, adopted Blue Yonder<sup>10</sup> for enhanced supply chain management. Analytics tools bring together information from different sources, e.g. stock levels, issues such as delivery problems, and order volumes and trends, to allow suppliers to better plan their own supply chains by rescheduling and adjusting order levels, production lines and delivery schedules.

Procurement functions across industries had rapid changes implemented to fast track orders for essential supplies. The biggest changes were in the public sector that is highly regulated. For example, in the UK government agencies and departments took advantage of Public Contracts Regulations (PCR) emergency clauses that allowed them to make direct awards for supplies on an emergency basis<sup>11</sup>.

Terms of contracts had to be renegotiated, credit lines extended and/or payments sped up to help smaller companies with cash flow issues.

### Shift to ecommerce

The move to ecommerce has been a long journey with industry behemoths like Amazon leading the way, and e-commerce apps such as Shopify bringing online shopfronts within reach of smaller retailers. Lockdown has accelerated the speed of travel, adding more pressure to the brick and mortar store model and the shift to online. It might not spell the complete demise of the sector however, as post lockdown people are likely to be desperate to get out of their homes and do some good old-fashioned shopping in store with their friends. Change is inevitable though. The new strategy for retailers is to provide novel flagship stores, whilst keeping most sales capacity shifted to online.

Retailers are investing in their online stores and improving the customer experience. An example is Boden, which is discussed in the case study section of this paper. Another is Bicester Village adding personal shopper advice via WhatsApp messaging.

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Sources:

<sup>10</sup> Reuters

<sup>11</sup> Eversheds Sutherlands

### Capacity planning

Something that continues to be a huge problem is staff shortages due to self-isolation, and of course, the virus itself. This has affected capacity in all industries irrespective of the area of work or field of specialisation. The effects are being felt in the reduced range of products output by food manufacturers, with fewer varieties of food and reduced ranges of products being stocked by supermarkets, as well as services of all kinds taking longer, such as company financial audits, and telecom connections.

Measures to deal with a reduced capacity include slashing product ranges and reprioritising production efforts, simplifying, optimising, and automating more processes.

### Innovation and diversification to survive and thrive

Unsurprisingly, necessity proved once again to be the mother of invention. We saw the highest rate of innovation ever seen in the field of medicine, drug discovery and pharmaceuticals with vaccines developed in a matter of months instead of decades. Similarly, we saw innovation in the field of academic research and in manufacturing. There were also many examples of diversification like airlines, deprived of passengers, increasing their cargo capacity and taking on deliveries of supplies. Alcoholic drink manufacturers started producing sanitising hand gel, and manufacturers of vacuum cleaners and sports cars invented new ventilators for hospital intensive care units.

Royal Mail in the UK expanded its model by offering a low-cost doorstep service to pick up parcels from private homes and deliver them. The service is arranged by customers through a new Royal Mail online booking service.

Academic departments contributed by outputting rapid research to track, trace, and produce distribution models.

Taxi companies, left devoid of paying fares, turned to delivering food supplies to vulnerable citizens who were shielding or isolating.

## Case studies

In this part of the report we explore some examples of how organisations in the most affected industries responded to the crisis.

### HMRC develops solutions to roll out new government support services fast

HMRC has experienced huge pressures during the pandemic. Not only has it had to deal with capacity issues as staff self-isolated and changed working models due to social distancing and home working, it has also had to develop digital solutions to provide new financial support packages to citizens and companies quickly<sup>12</sup>. It was able to do so by reusing existing platforms that it has for other requirements. It has gained the required skills over a period of time since bringing some outsourced IT services back in-house and has pursued a model of working with partners to accelerate innovation and speed up software development. It has also invested in skills and other measures such as pooling of resources and expertise, for example in its cloud centre of excellence.

### Tesco's shift to online left other supermarkets trailing

One of the largest UK supermarkets, Tesco<sup>13</sup>, adapted well to the new normal. At the start of the pandemic, sales of in-store items such as clothing and petrol in its mega stores were declining, while demand for online groceries was soaring. It moved fast to build capability in response to demand. The grocer hired 47,000 new staff members to pick, pack, and deliver online grocery orders, and bought 200 new delivery vans equipped to deliver groceries. Another change that it implemented was to opening hours - opening the stores that were used for online orders two hours later to create capacity to fulfil the orders. Its rivals also benefitted from the increase in demand, but many have not yet ironed out bottlenecks with their order fulfilment models, e.g. some have been too slow to hire more staff to pick and pack for orders or expand their delivery vehicle fleet.

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Sources:

<sup>12</sup> [Diginomica](#)

<sup>13</sup> [BBC](#)



Some smaller food wholesalers also adapted such as suppliers to restaurants who quickly updated their websites to process consumer orders. Without such measures and with restaurants closed in lockdowns, they would have gone out of business.

### Boden enhances online customer journey

Boden provides a good example of investing in innovative technology to improve the customer experience as well as reducing the need for handling returns. It has reportedly increased sales by 5.1%. The technology that it invested in was a) to improve the digital customer experience with data-driven personalisation, and b) partnered with True Fit to support customers to choose the right size of clothing for their body shape. This has helped reduce costs and lost revenue due to returned goods<sup>14</sup>.

True Fit worked with Boden to implement True Confidence™, powered by its Fashion Genome™, that provides and analyses data sets based on transactions at 17,000 retail brands and from 190 million registered shoppers.

### UK credit card company call centre problems

Supply chain issues arose in all areas, including human capital, as one of the largest credit card companies in the UK found itself in the position of not being able to respond to demand for customer contact at the start of the pandemic. It had previously moved its customer contact services to India and when India went into a total lockdown, the number of staff available to handle calls reduced dramatically, resulting in long waiting times on the phone for even urgent matters such as lost cards and fraud reporting. Customers shared the problems on online communities impacting the reputation of the company.

Other companies with more optimised locations strategies, i.e. contact centre operations in different geographies, managed to meet demand better.

This situation goes back to resilience planning and risk mitigation strategies. In the case of the former example, it is easy to see in retrospect that betting on one country for contact centre operations would have led to problems, but it is very unusual for an event to impact the whole of the vast Indian subcontinent. Companies typically build capabilities for coping with problems such as floods and earthquakes, usually having regional effects only, allowing centres in other regions of a country to continue to operate. However, the pandemic created a situation that was not perceivable before - the lockdown of whole nations. Resilience planning will take new added dimensions in the post-pandemic world.

### Police respond to changing crime patterns

Police departments turned to the reallocation of resources to respond to changing crime patterns as a result of the pandemic. The crisis has resulted in a reduction of street crime, but a huge increase in domestic violence and child abuse. There have also been demonstrations against lockdowns, and large illegal raves and social gatherings that needed policing. These cases required specially trained officers and led to reorganised team structures and retrained personnel while also coping with staff absences due to illness and self-isolation.

### Changes to procurement across industries

An example of how procurement procedures changed as a result of the pandemic include Morrisons, who temporarily scrapped its 14-day payment terms to pay small suppliers as soon as an invoice was received. The business also re-classified small suppliers as those with a turnover of under £1m (previously £100,000), allowing an extra 1,000 businesses to benefit from the new payment terms. It is estimated that 3,000 small suppliers, including 1,750 farmers, will benefit<sup>15</sup>.

Another example is the World Bank<sup>16</sup> who had to streamline its processes to support countries' efforts to procure personal protection equipment and other pandemic-related supplies. The complexity of procurement procedures had increased due to inflated prices, broken global supply chains, a reduced workforce, and the need to manage everything remotely while adhering to working from home requirements. Among the measures introduced by the bank were a set of templates and guidance notes allowing clients to

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Sources:

<sup>14</sup> [Internet Retailing](#)

<sup>15</sup> [IOSH](#)

<sup>16</sup> [World Bank](#)

choose from more streamlined and shortened processes. Contracts became subject to ex-post review with retroactive financing made available for up to 40% of the contract amount.

## How technology could enable and enhance resilience measures

The measures taken by organisations in different industries and the role that technology can play in them are summarised in Table 2.

<i>Measure</i>	<i>The role of technology</i>
<i>Allowing office workers to work from home</i>	<ul style="list-style-type: none"> <li>• Telecoms and broadband networks connecting home workers to business systems</li> <li>• Use of virtual conferencing and collaboration tools</li> <li>• Improved document management and version control</li> <li>• Transfer of confidential information over VPNs and via secure portals</li> <li>• Endpoint security and edge security</li> <li>• More use of cloud for flexible on-demand infrastructure capacity as well as Software-as-a-Service</li> </ul>
<i>Tackling supply chain issues</i>	<ul style="list-style-type: none"> <li>• Supply chain analytics and planning solutions</li> <li>• Intelligent inventory management</li> <li>• Shifts and human resource planning and scheduling</li> <li>• Logistics route and cargo planning and optimisation</li> <li>• Process automation e.g. contact acknowledgements, invoicing, accounts receivable and payable processes, automatic updating of online catalogue entries, prices, and special offers</li> <li>• Internet of Things (IoT) combined with analytics for predictive maintenance of machinery to avoid breakdowns</li> </ul>
<i>Shift to ecommerce</i>	<ul style="list-style-type: none"> <li>• Automated management of new customer registrations, orders, confirmations and acknowledgements</li> <li>• Delivery scheduling, notifications and receipts</li> <li>• Connecting newer digital front offices with legacy back office systems via Robotic Process Automation (RPA), low code applications and data integration solutions</li> <li>• Automation of customer contact management via chatbots, messaging and intelligent virtual agents</li> <li>• Contact centre agent support through intelligent advice such as next best action, knowledge-bases, corporate policy and regulatory compliance guidance,</li> <li>• Sentiment analysis and pre-emptive prescriptive action to mitigate risks</li> <li>• Customer experience enhancements and recommendations e.g. automated size and style advice on clothes and parts for devices</li> <li>• Stock level and supply chain analytics</li> </ul>
<i>Staff absences</i>	<ul style="list-style-type: none"> <li>• Using Intelligent Automation (IA) technologies such as RPA, Intelligent Virtual Agents (IVA), Intelligent Document Processing (IDP), and task and process mining tools, to increase digitalisation and straight through processing</li> <li>• Improving employee productivity via desktop automation, process optimisation and performance monitoring</li> <li>• HR technologies for workforce planning and utilisation technologies</li> <li>• Skills development using eLearning including where possible, holographic visualisation, Augmented Reality (AR) and Virtual Reality (VR) goggles</li> <li>• Improving communication, collaboration and ideation capabilities of teams and groups</li> </ul>
<i>Rapid innovation and diversification</i>	<ul style="list-style-type: none"> <li>• Mining sales, customer journey and sentiment, operations and social media data to find opportunities for new products and services</li> <li>• Tapping external data to support internal research e.g. using AI to analyse sales and market conditions to reveal business insights</li> <li>• Use low code and AI open-source platforms to develop new software products rapidly</li> </ul>

Table 2  
COVID-19 pandemic resilience measures and the role of technology

## Technology for resilience

We have covered how the pandemic has accelerated the adoption of technology, for example through automating processes to make up for staff shortages, and through new applications such as the novel track and tracing service by the UK government.



Furthermore, in Table 2, we have provided a summary of how technology can support the key components of resilience in the pandemic.

One type of technology that has come to the forefront is Artificial Intelligence (AI). The pandemic has seen the adoption of AI for many different requirements, from predicting patterns of the spread of the disease, to estimating human capital requirements during the year, and automating document-centric business processes. It is proving its worth in reducing manual work and friction in business processes.

While the advanced data processing, analytical, and automating capabilities of AI are nothing new, these features have come into their own for organisations striving to navigate economic turbulence e.g. predicting the risk of loan defaults in banking and enabling banks to put measures in place to assist customers as well as to assure revenue. In telecoms it is being used for a variety of purposes including predictive maintenance of equipment to speeding up customer call resolution.

Business process automation is another segment in the market where vendors are reporting increased demand. The segment includes Intelligent Automation (IA) that brings together technologies such as AI in the form intelligent voice, text and document processing together with RPA. There are other technologies that can help with rapid development of solutions, e.g. low-code software development platforms for urgent requirements, but a holistic approach is needed to ensure not only short-term gains are achieved but longer-term strategic objectives as well.

Emergence Partners has created the Tech+ Stack to help organisations visualise the key capabilities that we believe are needed for resilience, and to achieve profound transformation post-pandemic. The Tech+ Stack is shown in Exhibit 1.

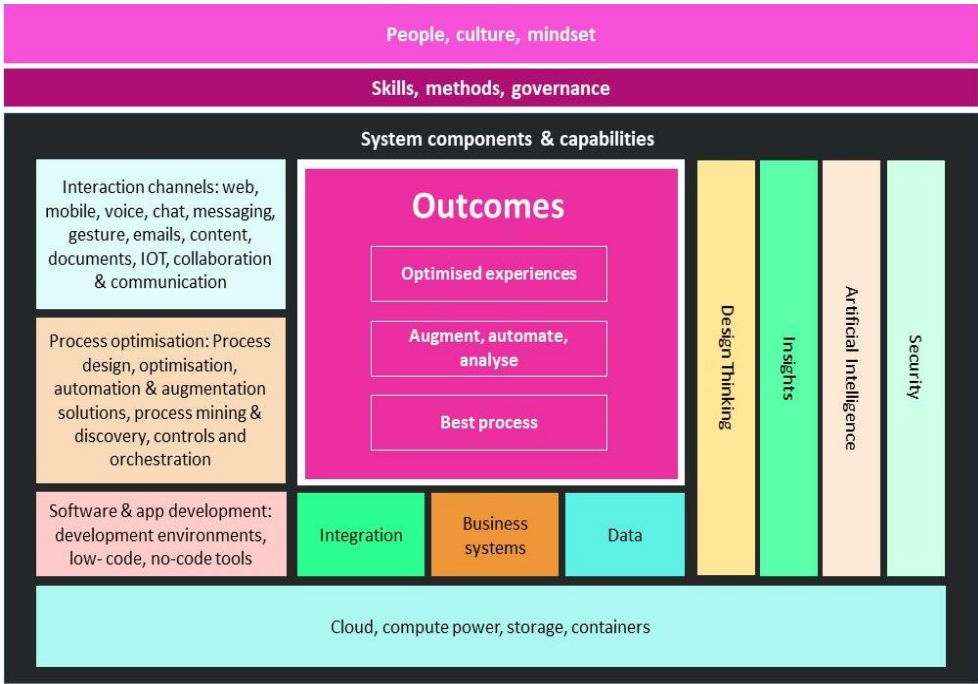


Exhibit 1  
Emergence Partner's Tech+ Stack

The Tech+ Stack is unlike many other architectures because it gives prominence to the people and organisational aspects of the enterprise, and not just the technologies that are essential for resilience and transformation. It helps organisations visualise all the important components in one framework, to identify and prioritise the components that they do not have and that they need to build or enhance.

At the heart of the Tech+ Stack are the outcomes that organisations typically strive to achieve. These are the most important drivers for change and should be treated as such; it is never advisable to invest in technology for the sake of technology alone.

The outcomes focus on optimising experiences for all, augmenting and automating business processes based on insights, as well as creating the best processes through

optimisation and best practice. These are hugely important when organisations are juggling with the shortage of resources and capacity and shifting demand patterns in the pandemic. Therefore, the importance of focusing on best processes that are fit for the current crisis – processes that are either automated or delivered by staff, but with technology augmenting work to increase productivity. A paper that describes the stack in full, titled "[Tech+ Stack: a platform for profound transformation](#)" was published by Emergence Partners on 24 October 2020 and is available for access via the link provided.

## Lessons learnt

Although predicted by some, the pandemic caught organisations of all sizes and in all industries by surprise. While disaster recovery plans kicked in and many technology systems continued to operate, the supply chain of materials and goods became unpredictable, as did capacity levels due to staff shortages. Demand patterns also diverged wildly from the norms and became difficult to predict. In response organisations have learnt to cope with the new normal by:

- Increasing the frequency with which they review plans and priorities work to stay on top of changing conditions
- Reducing product and service lines and prioritising production of essential goods and services
- Streamlining procurement and supply chains
- Reviewing contracts, credit lines and invoice settlements
- Optimising, simplifying and where possible automating business processes
- Restructuring and reallocating staff to essential functions, and if necessary, retraining them
- Reviewing and optimising the mix of delivery locations to operate as best as they could under differing lockdown requirements in different countries
- Turning to technology to do more with less

These measures underline the need for business insights, agility, and skills to be able to learn and understand changing market trends and demand patterns, and to have the skills to successfully implement change and adopt the right technology to power transformation and resilience.

## Conclusion

We have learnt valuable lessons about resilience in 2020 and sadly for some, these have come at a heavy price. In early 2021, with new variants of the virus, the pandemic rages more ferociously than before and healthcare is running out of capacity. Our hopes are pinned on mass vaccination programmes across the globe to build herd immunity. In the continuing uncertainty, organisations need to remain informed and agile. They need to capture insights to make informed product and service-related decisions. Frequent reviews of businesses in the light of changing market conditions is a must, as is prioritisation of essentials over nice-to-haves.

Technology is a key enabler of resilience and in the Tech+ Stack we have highlighted what we believe are key enablers, including capabilities for process optimisation, streamlining, and automation.

Enterprises' dramatic experiences of the events of 2020 should strengthen their resolve to build better corporate resilience in 2021 so that they can weather more storms and black swans in the future.

# Emergence

Emergence Partners is a consulting firm that inspires profound transformation and is a catalyst of change for business leaders, freeing them from the predicament of analysis paralysis. Emergence collaborates with stakeholders to bring both efficient gains and long-lasting impact with advanced technology at the heart of their businesses. We partner with clients to navigate the challenge – and opportunity – to ensure an equable symbiotic relationship between the ingenuity of human creativity and the power of machines.

## Where does your business need support?

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### About Sarah Burnett

#### Founding partner

Sarah Burnett leads Technology Immersion and Market Insights at Emergence Partners. Sarah is a renowned industry analyst and helps companies successfully formulate their technology adoption and innovation.

