



Where we are today

Industrial manufacturing has responded to the immediate challenge of keeping open the supply of vital goods and services. The sector as a whole employs 2.5 million people across the UK, relies on global supply chains and faces the challenge of adapting facilities and processes to new working restrictions and varying customer demand.













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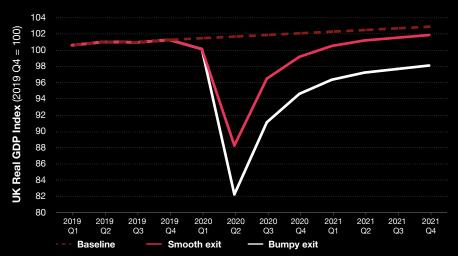
Not only is the impact of COVID-19 strongly felt, so too are the measures taken to mitigate its spread - restricted trade routes, limited travel, and social distancing measures. While some players will continue to remain operational to deliver key goods and services, some now face the challenge of restarting production in a very different way and, depending on end markets, with uncertainty about the shape of demand.

Industrial manufacturing is not suffering alone. In the 'Smooth exit' and 'Bumpy exit' scenarios, Strategy& Economic analysis suggests GDP could contract by around 20-30% quarter-on-quarter in Q2 2020. However, our figures suggest the industrial manufacturing sector will be hit harder than the economy as a whole, with a possible fall in economic output of more than 37%.

37%

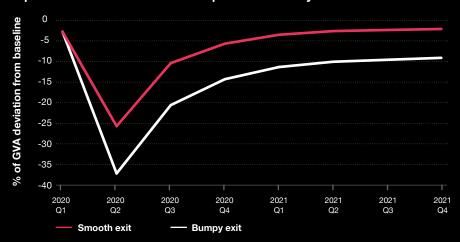
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UK GDP index (Q4 2019 = 100), quarterly levels in each scenario



Source: Strategy& UK Economic Analysis May 2020

Impact of COVID-19 on Industrial products GVA by scenario



Source: Strategy& UK Economic Analysis May 2020

A brief look at sectors served by industrial manufacturing shows the challenges. Aerospace companies such as Boeing and Airbus are slowing or temporarily suspending production in an attempt to avoid 'white tails' (aircraft with no buyer). Defence spending is also expected to shrink. While NATO countries, for example, are still committed to a budget worth 2% of GDP, future contributions will be 2% of a much-reduced GDP.

Elsewhere, chemical manufacturers are either struggling because their products feed other badly affected sectors, or they are repurposing production to support protective equipment efforts. Meanwhile, electronics manufacturers are struggling because of supply chain issues, notably in China and other southeast Asian countries.

Despite the gloom, now is the time to put in place post-crisis plans. This period of enforced downtime - rare in the 24/7 shop floors of industrial manufacturing - provides the headspace and capacity to rethink and reconfigure business operations.

44,000

Current no. of sector employees

'Total number of employees' represents the total number of employees in the Industrial Products sector. These figures are deduced from ONS data, specifically the Business Register and Employment Survey 2018 provisional.

Jobs at risk RAG rating

'Jobs at risk' rating reflects the analysis conducted by the International Labour Organisation. They assessed the global impacts of COVID-19 on different sectors, assessing those most likely to lay off workers due to lower cash flow.

22%

of workers normally come into physically close contact with >20 fellow workers

Physically close contact is defined as a distance of 2m. Source: PwC Research QuantiBus April 2020.

of workers can work from home

The Work From Home index is based on a survey carried out by PwC Research, and is the equivalent to the % of respondents saying they can work from home.

What are we learning?

Sector exposure shows the merits of diversification

Whether making parts or assembling products, manufacturers with a broader, more diverse set of customers will fare better than those who specialise in serving specific industries. Some are already demonstrating the agility to pivot from their conventional output. Chemical manufacturers Dupont de Nemours, Ineos, and Huntsman Corporation, for example, have reprioritised to make chemicals for use in the manufacture of personal protective equipment and hand sanitisation products. Ford, meanwhile, is assembling over 100,000 face shields per week. Smaller players can pivot similarly.

Supply chains should be more diverse

The crisis also demonstrates the need to have a diverse supply base. Those with long, complex global supply chains are particularly exposed, and face the challenge of navigating a host of cross border restrictions and closures apply elsewhere. Those with a broader network of suppliers and assembly plants in different regions will be able to absorb the shock better than those reliant on single suppliers.

The crisis will prompt greater consideration for dual- and near-sourcing, with a focus on localised supply chains and potentially drawing on suppliers traditionally tied to other industry sectors.

Workforce pressures and the case for automation

According to the UN International Labour Organisation, the 463 million people working globally in manufacturing are among the worst affected by the virus and its repercussions.

As manufacturers plan to restart operations, they will be aware of the challenge of social distancing. Taken together, the effects of the virus and the impact of mitigation measures, mean that the post-crisis factory floor will look very different. First, rigid eight-hour shifts, five days a week are unlikely to be the norm. Second, the case for automation - adding resilience to operations and augmenting a skilled workforce - will get stronger.

100,000

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New forms of collaboration will outlast the crisis

Alliances that once seemed improbable are now being formed to help fight the effects of COVID-19. As an example, in late March, construction equipment manufacturer JCB joined forces with Dyson and reopened its Uttoxeter plant - which usually makes cabs for diggers - to produce the steel casing for Dyson-designed ventilators. Cross-sector collaborations - epitomised by the multidisciplinary VentilatorChallengeUK - will shift focus post-crisis but the benefits of co-creation and shared learning will remain relevant.

Products, pricing and stock: the case for service models

The COVID-19 crisis is forcing industrial manufacturing companies to take stock - literally and figuratively. Now is the time to review pricing policy and decide which products to prioritise when ramp-up begins, as well as address what is the right amount of stock to carry now.

Most manufacturers survive on low margins, particularly those who don't own their intellectual property. Cost base transformation is essential for long-term fitness. Those with lower overheads and capital intensity will be better positioned to pivot in the short-term and prosper in the longterm. Similarly, systems and platforms that help scale down buffer stock will be increasingly important.

Manufacturers should relook at the as-a-service model. Where the supplier relationship is transactional today, this alternative approach promises recurring revenues through market troughs as well as peaks. By providing supplementary services such as maintenance, clients not only get added value but can spread costs across the year.



How do we respond?

To emerge from the current crisis in the best possible shape, we advise taking a series of short- and long-term measures.

Preparing for recovery: anticipate, stimulate, and fulfil demand

Prioritise and sequence business ramp-up

Use demand signals such as customer leads and market insight to inform recovery, preparing for different scenarios depending on the length and nature of the recovery. Prioritise customers and production lines, and seek to unlock maximum value from existing resources.

Enable rapid revenue generation

Where contracts allow, focus on high-margin products, stalling or cancelling production elsewhere. Look to optimise margins by focusing on batch sizes, delivery frequency, payment terms and storage as appropriate. Scan the competitive landscape to identify where contracts can be won and opportunities have opened up as a result of the downturn. Finally, use downtime to reconfigure operational layout for improved productivity.

Establish and address customer risks and gaps

Assess the ability of critical customers to restart operations by evaluating workforce availability, financial viability and potential cross-border restrictions. Support at-risk customers where viable.

Identify M&A targets and divestitures

Manufacturers should clean up their portfolio by divesting in areas that might otherwise be a distraction during the recovery phase. At the same time, they should cast an eye over competitors and supply chain partners who may provide synergies.

463m

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Determine and address workforce risks and gaps

Assess workforce requirements and identify potential shortfalls in critical skills. Mitigate risks where possible, for example, introducing measures to protect returning employees from second wave infection, rolling out cross-training programmes to increase transferable skills, and introducing digital training tools to rapidly and remotely onboard replacement talent. Finally, identify the key performers who proved critical during the recovery phase.

Understand the viability of whole supply chain Identify supply chain strengths and weaknesses during lockdown. Apply those learnings by dual- and nearsourcing where appropriate.

Positioning for success: Rebuild the best possible company

Identify activities that add value to the business Evaluate all aspects of the business to isolate efficient and non-efficient parts of the operation. Act accordingly, including disposing of non-critical activities.

Build resilience through agility

Invest in technologies, such as 3D printing, that enable flexible supply and distribution of parts and introduce digital supply chain solutions for the early detection of end-to-end issues. Embed and integrate data-driven systems that provide actionable business insights. Consider reducing office space in anticipation of ongoing flexible and home working. Finally, explore where functions can be automated on the factory floor, including material movement, repetitive tasks, and predictive maintenance.

Fix the operating model

Adopt digital business processes put in place during lockdown. At the same time, retain those technologies that supported remote working. Keep the streamlined decisionmaking processes used during the crisis. Abolish siloed ways of working and look to standardise, automate, relocate functions as appropriate. Finally, identify and eliminate non-additive activities through selective restarting - if there are areas of the business which are now deemed non-essential, avoid switching them back on until or unless they become needed.

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See this as an opportunity for positive change

One welcome, if unintended, consequence of the response to the COVID-19 virus is cleaner air.

Lower demand for industrial products is benefiting the environment as factories emit less carbon and nitrogen. But what happens when lockdown measures are eased? A return to business as before or a chance to embed net zero targets into the new model and recasting carbonintensive processes?

Rarely does industrial manufacturing have the capacity, downtime, or headroom to make such significant changes. Organisations must not waste this opportunity.

Any organisation that returns to business as before is passing up a once-in-a-generation chance to adapt. reshape and reinvent. It's time to do things differently.

Who to talk to

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We are uniquely placed to combine strategy with technical, industry and execution expertise. We embed our strategy capabilities with expert teams across our PwC network, to show you where you need to go, the choices you'll need to make to get there, and how to get it right.

The result is an authentic strategy process powerful enough to capture possibility, while pragmatic enough to ensure effective delivery. It's the strategy that turns vision into reality. It's strategy, made real.