



The virus outbreak means major shifts are underway in chemical markets

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Top five pandemic paradigm shifts

The coronavirus outbreak has accelerated fundamental changes which were already underway in global chemical markets

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There are moments in life when time speeds up and the world suddenly changes, almost overnight. The coronavirus pandemic is proving to be the catalyst for one of these moments, as Milan's deputy mayor Pierfrancesco Maran highlighted in April: "Before, we were planning for 2030; now the new phase, we are calling it 2020. Instead of thinking about the future, we have to think about the present."

He was talking about the dramatic paradigm shift taking place in people's idea of cities. For decades, these have been built around cars, with people and cycles pushed to the side of the road. But the pandemic has suddenly allowed people to dominate again - and they have also loved seeing blue skies and breathing clean air, sometimes for the first time in their lives.

Mobility is not the only area where major paradigm shifts are now underway. The pandemic has also revealed the fragility of today's global supply chains.

These were mainly set up as a cost-saving exercise over the past 25 years, with no thought for how they might operate in a crisis. The experience of recent months has unfortunately demonstrated that they are unfit for

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purpose, and now need to be replaced with more local operations.

Of course, part of the today's surprise at the pace of change comes from our natural preference for 'business as usual', where tomorrow will likely be very similar to yesterday. But we also all know that nothing lasts forever. And today is proving to be one of those moments when major change starts to happen almost overnight. In turn, this creates challenges and opportunities.

Challenges abound

The challenges are most obvious, because many of today's income streams are suddenly under major threat. Companies have operated successfully for decades on the basis that markets will always grow in line with GDP and so, at worst, a new investment will come online a few months too soon. And because of

this growth focus, strategies have been based on a supply-driven approach. Long-term access to competitive feedstocks has been the key to success, along with low-cost reliable operation. Customer segmentation has been well down the list of areas to monitor.

Today, however, this paradigm is no longer true. Many markets are instead seeing negative growth, and suddenly facing major pricing pressure due to oversupply. As a result, companies only have two choices - they can either cross their fingers and hope for a return to 'business as usual', or they can start thinking 'out of the box' about how they will compete successfully in today's New Normal. Logic suggests they now need to refocus on the other end of the value chain and instead become demand-led.

Agility is therefore becoming a critical success factor. And once the need for change has been understood, it is clear that the New Normal is creating a major opportunity for companies to rapidly build and scale new businesses which will likely provide solid revenue and profit growth for decades to come as a result of the five key changes now underway:

1. Demand patterns

The lockdowns have broken down the inertia surrounding work and home-based routines. Travel, leisure, construction, real estate and other industries will likely see major change as a result. The EU's Green Recovery Deal is just one example of the new opportunities that are likely to develop. Europe, for example, is likely to see very rapid growth of Electric Vehicles at the expense of gasoline or diesel, and other regions will see similar challenges and opportunities emerge. The key is to focus on demand rather than supply, and aim to create the deep techno-commercial capability required to gain first-mover advantage by evolving from today's product focus to a solution orientation.

2. Reshoring supply chains

Global supply chains have proven very fragile during the pandemic. They have collapsed not only because of the uncoordinated nature of the lockdowns around the world, but also due to volatility in demand patterns. These problems are unlikely to disappear quickly, making it essential to closely monitor developments in all the major end-uses on a segment by segment basis, rather than assuming 'one size fits all'. In the food packaging market, for example, anyone selling into the restaurant business in recent weeks has seen volume collapse - whereas those selling to retail supermarkets have been overwhelmed with orders.

3. Energy abundance

Energy markets have also seen a major paradigm shift, with Q2 providing a taste of the world to come. The issue is that it already



[Click here](#) to watch a video on the five paradigm shifts you need to be aware of as pandemic unfolds

makes economic sense in some regions to 'scrap and build' - in terms of scrapping older, fossil fuel-based infrastructure, and replacing it with modern renewable-based power sources. This confirms that 'cost-advantaged feedstock' is no longer a critical success factor when considering new investments, especially with BP forecasting \$100/tonne carbon taxes by 2030. It also highlights the problems faced by the US shale expansions down the ethylene chain, and the wake-up call awaiting OPEC and others who believe that pivoting from transport to chemicals will somehow keep oil demand growing in the future.

4. Circular economy

The need to reshape supply chains in a world of potential energy abundance suggests that moves towards a circular economy will accelerate. Even without the pollution issue, it would make little sense for the world to continue spending \$80bn-\$120bn each year on producing single-use plastic products, which are then thrown away immediately after use. The pandemic has confirmed that plastics are very valuable materials - but we need new locally-based business models to be created, covering the value chain from collection through processing, manufacturing (based potentially on 3D printing) and distribution. Thinking 'out of the box' will likely create a goldmine for those innovative companies who focus on capturing the sweet spot in the new value chain, and rapidly scale the new business model(s) across the main cities and towns in their chosen regions.

5. Modern manufacturing

Another area long overdue for change is manufacturing, particularly in the specialty/fine chemical area, where the technology would often seem familiar to our Victorian forefathers. Reshoring provides a major opportunity to rethink both design and operation, with the aim of finally moving away from traditional batch processes to adopt digital, continuous

and bio-enabled technology to create a safer, greener, faster, cheaper and more flexible manufacturing footprint.

There is little doubt that the next few years are going to be difficult times for the wider economy. Most likely, as the IMF has warned, the world could see the worst economic downturn since the depression. But this forecast simply increases the need for an action orientation.

Major opportunities are now emerging in key markets such as shelter, mobility, health, food and water. These are all basic human needs, and the economic crisis highlights the potential to establish new business models based on the concept of sustainability and affordability. The key changes outlined above are all mutually reinforcing, and map on to our need as consumers to 'do more with less'. Not only do we now have less spare cash available, but issues such as waste, pollution and climate change have also become too urgent to ignore.

The chemical industry has gone through many changes in the past, and we have no need to worry about the prospect of further major change in business models and value propositions. Instead, we need to focus on the fact that we have a great future ahead of us, based on our unique ability to serve a wide range of essential human needs.

We have the technical and commercial skills required to develop the service-led solutions that consumers desperately require. And we also have the ability to roll these solutions out rapidly around the world, by repurposing and reinventing our existing capabilities and offerings. ■



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