



Building Resilience Amid Disruption

Navigating the human and business impact of COVID-19 on the chemical industry

May 26th 2020



The chemical industry is no stranger to disruption—from SARS to trade policy conflict and the financial crisis.

Yet COVID-19 is unprecedented in its impact, creating a universal imperative for governments and businesses to take immediate action to protect their people.

Unlike many other sectors, the chemical industry is not in a position to stop production and send workers home. Instead, it needs to strike the right balance between social distancing and keeping plants running to provide the basic necessities for society, as well as the antiseptics, disinfectants, protective packaging and more needed to fight the pandemic. Leaders should prepare for the short term while also developing new capabilities and ways of working that will enable longer-term changes.

To do so, the industry can look to past disruptions for guidance on how to navigate the crisis today.

Across disruptions, one success factor stands out: resilience. From strategy to operations and execution, building a sustainable, resilient business has been key—and now, it is more important than ever. For chemical companies, this crisis represents a significant challenge. But it can also be a compelling reason to instill greater resilience across the organization.

COVID-19 takes well-known chemical industry challenges to a new level

Safety of employees and operations

Meeting environment, health and safety challenges (e.g. hazardous processes and products), exacerbated by new issues related to operating during a pandemic.

Uncertainty and volatility in demand

Adjusting to significant volume and price declines. Deviations in end use demand (e.g. increases for food packaging/sacks, pharmaceutical ingredients, disinfectants and medical plastics vs. declines in automotive and construction).

Profitable growth after a downcycle

Flexing product portfolio and operations to align with new customer needs following the crisis, such as global stimulus package effects. Innovating for growth in new areas (products, services, markets).

Integrated production systems

Tuning asset-intensive, integrated production systems that cannot easily shift product streams to align with varying product demand. Consider new avenues to manage assets through alliances and alternative product disposition/uses.

Cost and margin pressure

Readjusting traditional advantages (raw materials, processes, innovation) is required by building feedstock flexibility, employing automation/robotics/AI/advanced computing and adding supply chain options.

Structural change

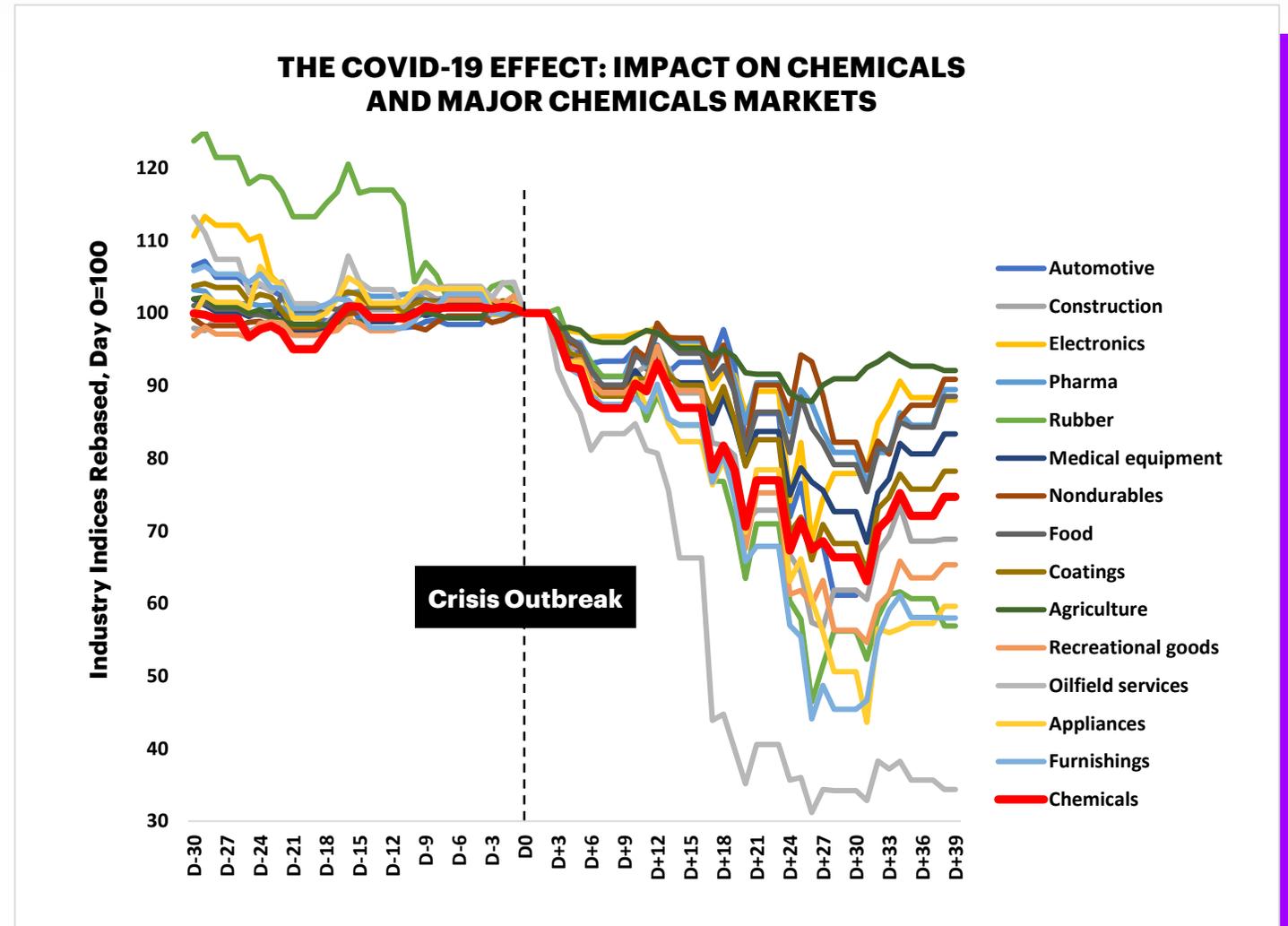
Orchestrating investments and reshaping assets. Changing industrial consumer geographies (e.g. to Asian Tiger Cubs and localization) driven by industrial calibration factors (labor cost differences, automation/robotics, additive manufacturing, customization demands and contagion risks). Meeting circular economy challenges.

The financial impact is significant and severe

COVID-19 has quickly turned into an epidemic of massive, global proportions—one that is posing a serious challenge to many industries.

For a wide range of companies, COVID-19 is affecting demand, supply, customer and investor confidence. Indeed, value chains are being disrupted in unprecedented ways. For the chemical industry, such challenges are compounded by the fact that its customer industries, such as automotive and electronics, are deeply affected by plant shutdowns and the disruption of sales channels.

Furthermore, the oil industry is experiencing oversupply in tandem with weak demand resulting from reduced economic activity associated with the virus. This is disrupting the oilfield chemical business as well as the economics of alternate feedstock routes and recycling.

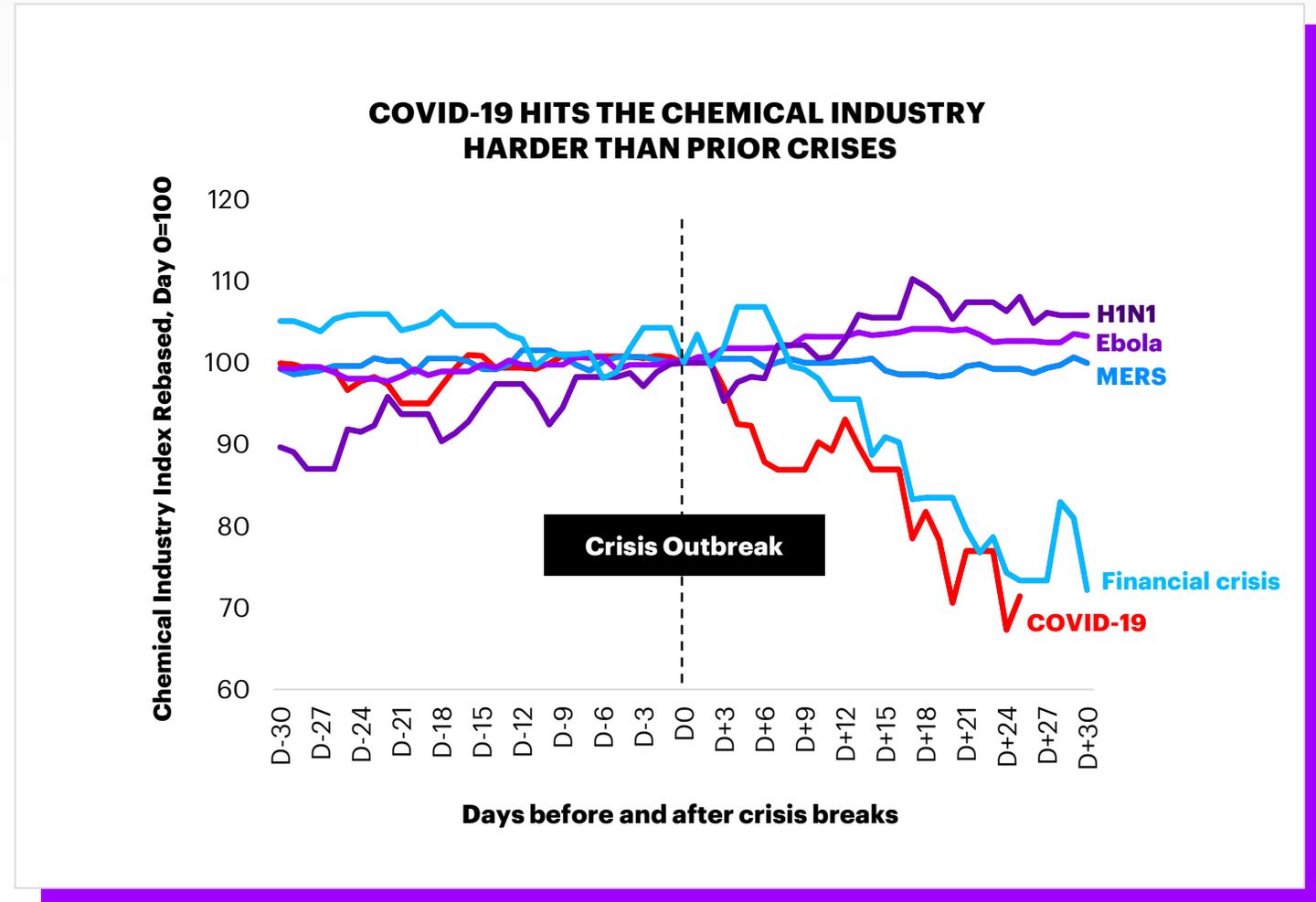


Source: Accenture Research based on analysis of industry indices sourced from Capital IQ.
Index = 100 at the crisis date of outbreak (DO): COVID-19 DO = Feb 21, 2020. Top vs bottom three most impacted industries.

Chemical industry market value has been affected profoundly

In the weeks following the COVID-19 outbreak, the chemical industry share price index dropped farther and more deeply than it did in previous crises, including the 2008 financial crisis. During that time, there were also more shutdowns of plants in customer industries, such as automotive, than there were during the financial crisis.

For example, by March 20, 2020, COVID-19 has resulted in over 135 auto plant shutdown announcements around the world, mostly for temporary timeframes, but reopenings may be delayed.¹

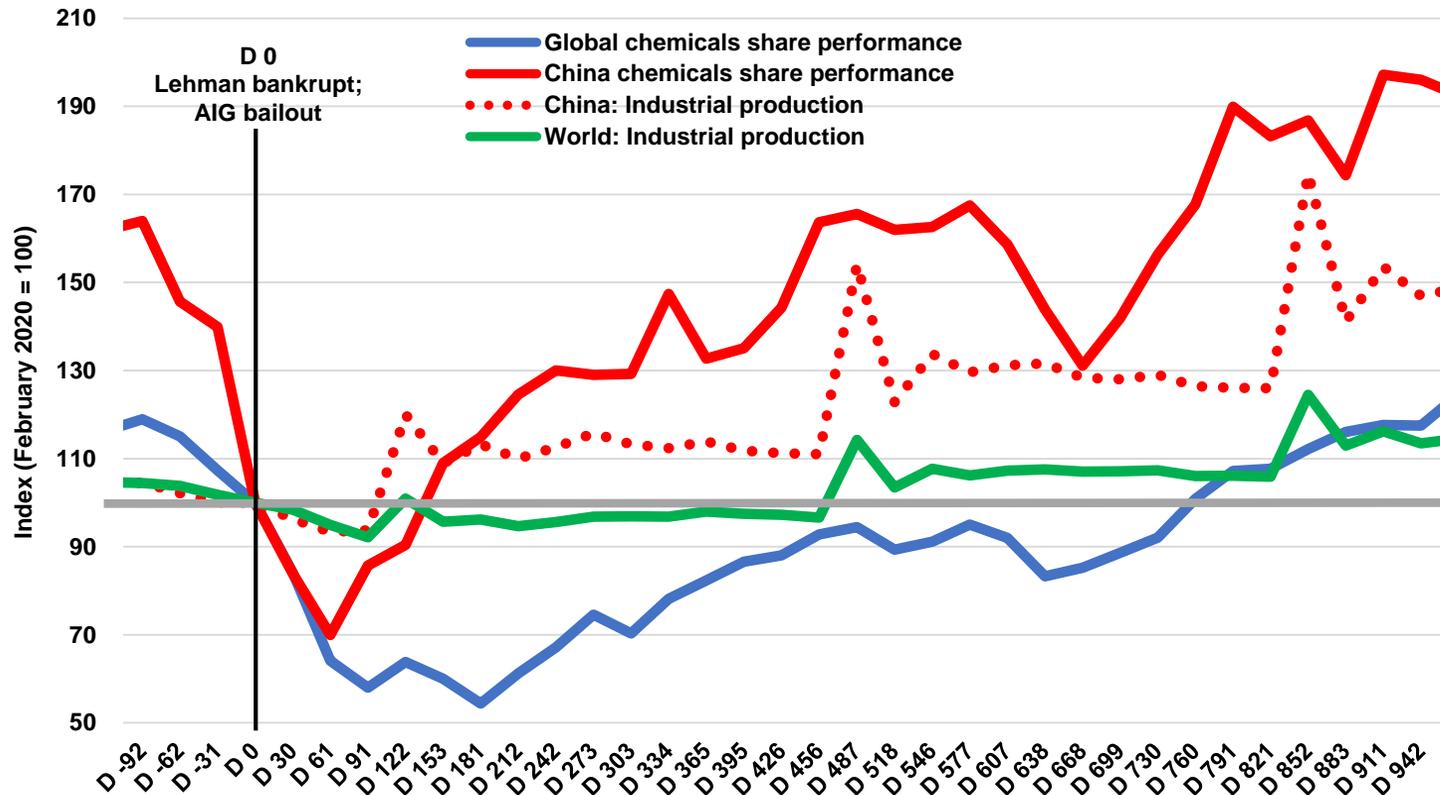


Source: Accenture Research based on analysis of chemical industry index sourced from Capital IQ. Index = 100 at the crises date of outbreak (DO). Dates are as follows: COVID-19 DO = Feb 21, 2020; MERS DO = May 20, 2015; Ebola DO = Apr 10, 2014; H1N1 DO = Apr 17, 2009; Financial crisis DO = Sep 15, 2008.

China recovered faster than the rest of the world after the financial crisis of 2008

Market recovery in China following the 2008/2009 financial crisis

Chinese chemicals share price & industrial production



Comments

- China's chemicals share performance went down significantly prior to and following the Lehman bankruptcy, but recovered faster compared to global chemicals share performance
- Steady recovery of industrial production with peaks during the Christmas period, especially in China
- It took two years for global chemicals share prices to recover, which can serve as an indicator for the COVID-19 recovery

Source: Accenture Research analysis of Capital IQ data and National Bureau of Statistics of China; Global industrial production based on a GDP weighted average of the monthly industrial production indices for US, Eurozone, China and Japan

Governmental interventions are likely to require new and different ways to restore performance

Governmental aid programs

Announced government aid programs (excerpt)



US: **~2000B USD**



- \$500 billion for company loans and \$350 billion for small businesses
- Unlimited amount of asset purchases to support markets



China: **~400B USD**



- \$394 billion of infrastructure spending
- Banks to roll over loans, relax guidelines on overdue debt, suspend payments
- Bank of China frees up \$80 billion



Spain: **~220B USD**



- \$219 billion of aid available, including \$120 billion of guarantees for company loans and €17 billion of direct support for enterprises



Germany: **~800B USD**



- \$800 billion package for loans, guarantees, government stakes in companies
- Cheap credits to keep businesses afloat



UK: **~400B USD**



- Government grants will cover 80% of the salary of retained workers
- No VAT for businesses
- State-backed loans of circa \$330 billion



Italy: **~50B USD**



- \$49 billion of support for companies /workers
- Unemployment benefits, frozen tax and mortgages as well as loan payments

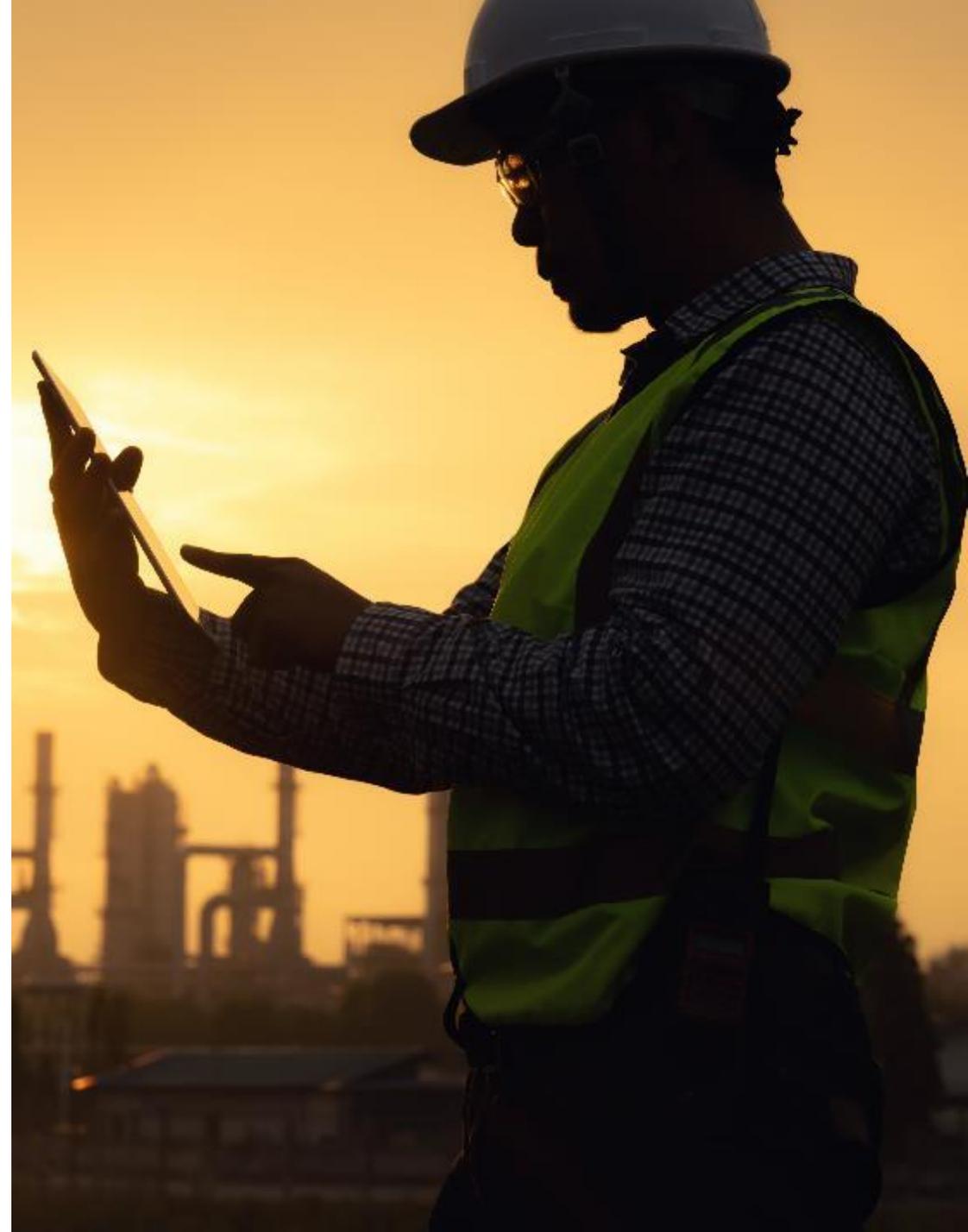
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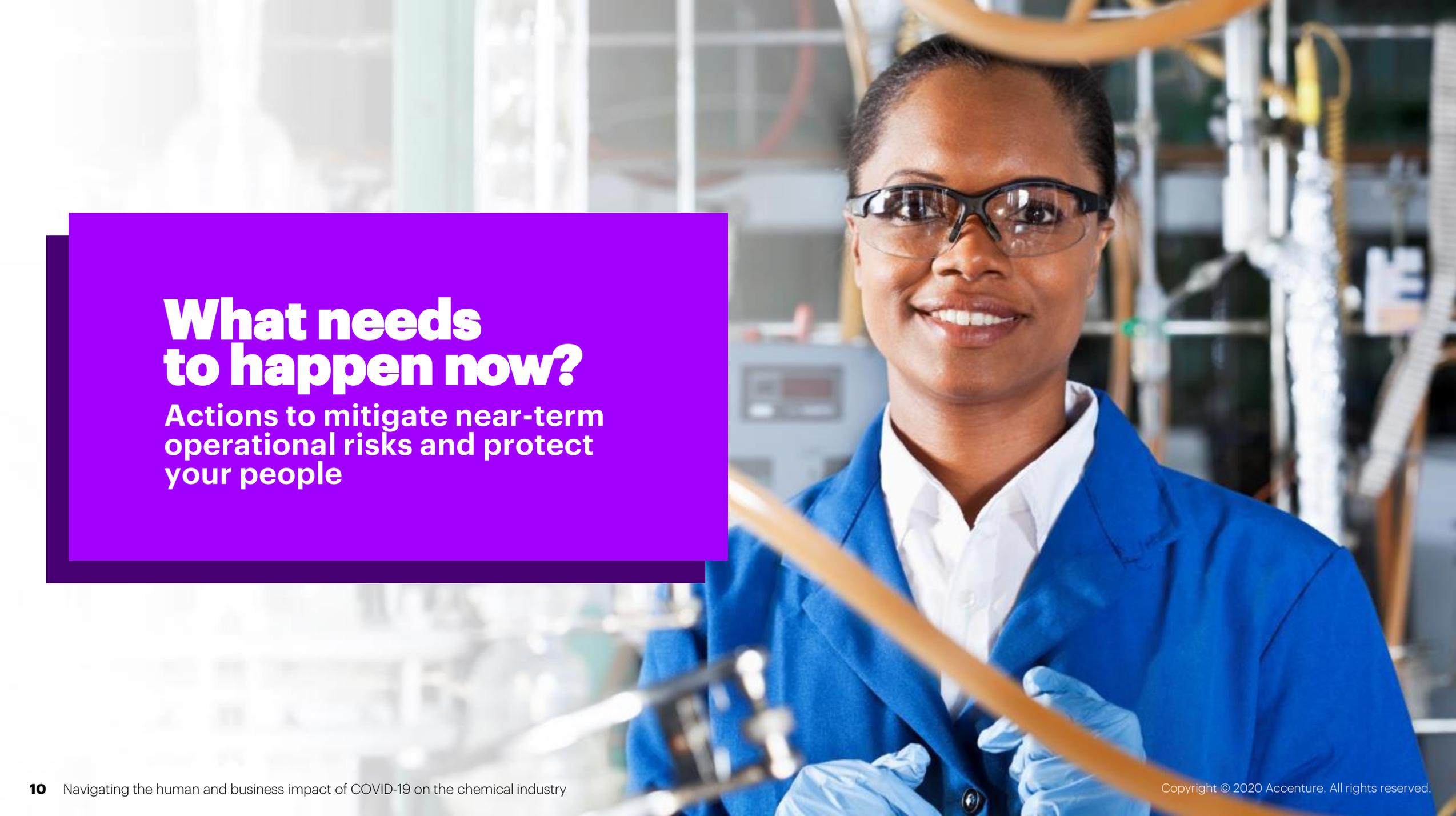
- Government programs primarily aim to secure jobs and limit the rise in unemployment
- As a result, recovering pre-COVID-19 performance is unlikely to center on “traditional” FTE reduction
 - Government programs pursue exactly the opposite: securing jobs
 - Previous efforts left little room for further FTE reduction

For chemical companies, COVID-19 highlights the importance of digital in a world disrupted by lockdowns

LESSONS LEARNED:

-  Employee protection requires two-way communication channels and platforms.
-  Companies without a fully digital marketing and sales capability are cut off from customers by the lockdown.
-  Remote access capabilities for employees are essential for business continuity at an enterprise level.
-  People-intensive functions such as business services require additional back-ups.
-  Safe asset operations require step changes in intelligent automation, robotics and remote control.
-  Scenario modeling, shift planning and agile team setup are critical to mitigate the quarantine impact on shifts.



A woman with dark hair pulled back, wearing safety glasses and a blue lab coat over a white collared shirt, is smiling at the camera. She is wearing light blue nitrile gloves and is working with a piece of laboratory glassware. The background is a blurred laboratory setting with various pieces of equipment and pipes.

What needs to happen now?

Actions to mitigate near-term operational risks and protect your people

Protect your people, your liquidity and your operations

Actions to take **now**



RESPONSE GOVERNANCE

Quickly implement the program management capabilities, infrastructure and processes required to triage and respond.



PEOPLE, COMMUNICATION & COLLABORATION

Stay engaged and keep communicating with your people to boost morale. In communities where COVID-19 has had a large impact, look for additional social responsibility roles your company could take on to help. Leverage the full functionality of digital technologies to interact and coordinate with employees, customers, suppliers and stakeholders.



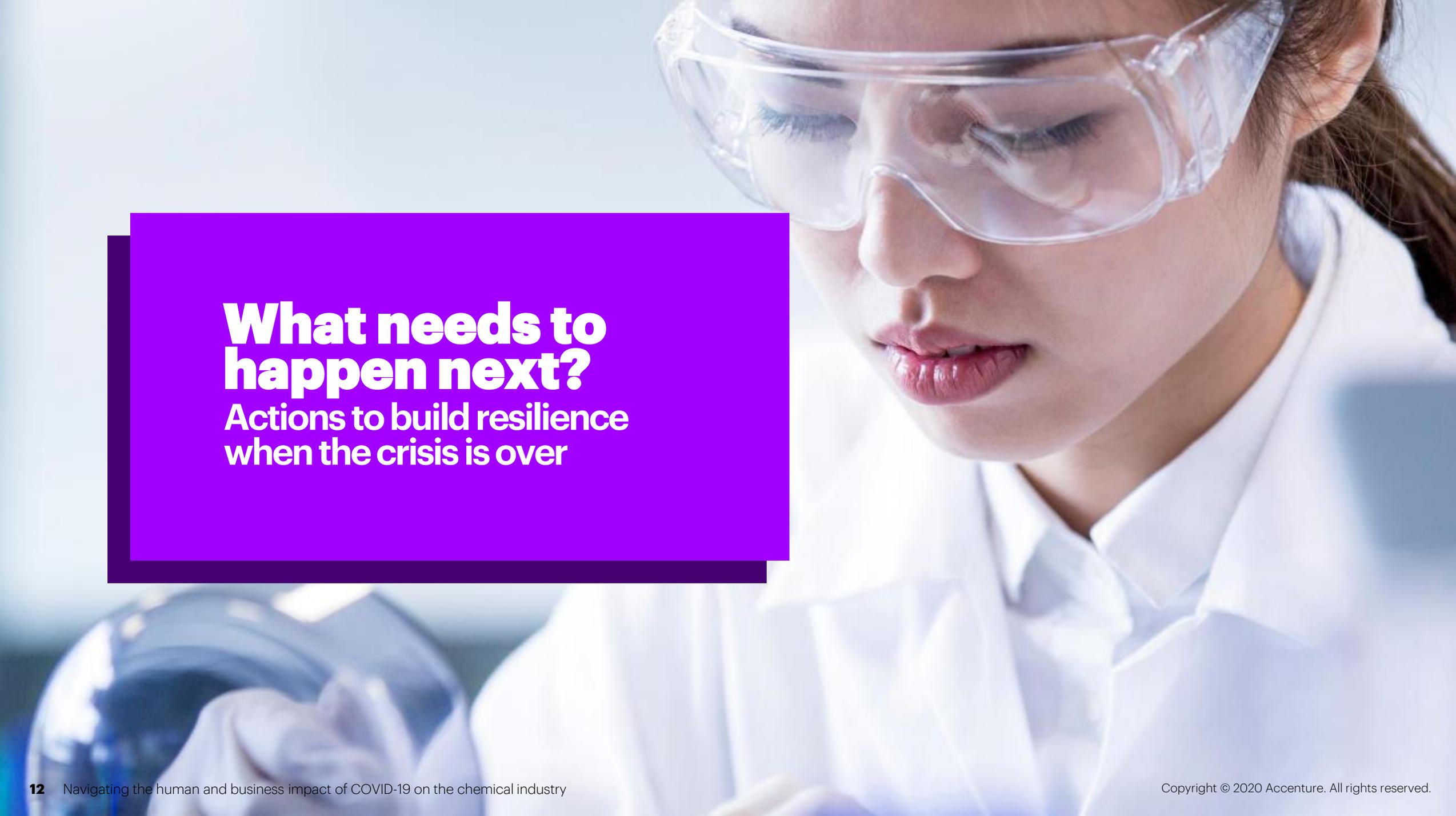
LIQUIDITY, INVESTMENTS

Safeguard liquidity and anticipate disruptions in customer industries, value chains and the global financial system. Rationalize and prioritize relevant investments/ongoing spend.



SUPPLY CHAIN & OPERATIONS

Build redundancy in critical plant operations—including contingency plans for plant workers to ensure continuity of operations. Provide secure remote access when feasible. Analyze supply chain risks and disruption, particularly with third-party vendors. Conduct inventory monitoring/planning/projection at producer and customer level.



**What needs to
happen next?**
Actions to build resilience
when the crisis is over

Actions to take **next**

Post the COVID-19 crisis, the immediate next step is to conduct a fact-based audit of crisis management and performance (including an external benchmark). Next, zero-basing all functions to free up resources is recommended, including setting up governance to sustain the zero-based improvements. Determining how to capture value from past technology investments is also essential.

But to build resilience, chemical companies should consider taking action across the following areas:

R&D

Apply data science, advanced learning, process and data integration to increase productivity and apply virtual agents on customer interface for 24x7 service levels.

PRODUCTION

Move to the next level of production: automated, remote controlled and data science augmented. Enable the digital worker.

CUSTOMER ENGAGEMENT

Build next-level marketing and sales capability with improved customer experience, order-to-cash automation, virtual agents and digital services.

INTELLIGENT ENTERPRISE MANAGEMENT

Develop data and applied intelligence platform to increase transparency, create actionable insights and identify optimization measures.

SUPPORT FUNCTIONS

Digitize and automate by implementing no-touch business services using intelligent automation, robotic process automation and user experience design. Co-source and/or partner if top quartile performance is not the best use of investments and resources.



**What needs to
happen later?**
Make a quick pivot to growth

Seize growth opportunities

The crisis has created an opportunity to reset for the future—
to strategically re-evaluate business models and plan for growth.

1

Sense short-term market and demand trends

Growth, stagnation and decline will differ by customer and application. Prepare to meet customer demand quickly and at scale. Seek out target customers where the current supplier cannot meet demand.

2

Take digital customer interaction seriously

Generally, customer interactions have been paper-based, complex and time consuming. The crisis has highlighted the need for digital customer interaction capabilities (e.g. sales cycle, service offering, technical and customer service support).

3

Innovate business models

The post COVID-19 world will not be the same as before; some customer industries are disrupted (airlines, retail, etc.) with new winners and new customer business models. Co-innovate with customers and value chains.

4

Scan for acquisition opportunities

Companies should redefine their target portfolio as companies in financial distress are forced to divest assets.

To help our clients navigate both the human and business impact of COVID-19, we've created a hub of all of our latest thinking on a variety of topics.

Each topic highlights specific actions which can be taken now, and what to consider next as industries move towards a new normal.

From leadership essentials to ensuring productivity for your employees and customer service groups to building supply chain resilience and much more, our hub will be constantly updated. Check back regularly for more insights.

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