

**Resilient supply chains** in a digital-first world

Building digital supply chain resilience is a longer-term journey that must progress through the maturity stages from the simplest, unstructured ad hoc stage to the advanced, systemized, optimized stage leveraging digital technologies.

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In today's post-COVID world, there are numerous disruptions and challenges worldwide. Dealing with these isn't new in the supply chain world, but the scale of the disruption is different, with organizations facing an acute shortage of raw materials, components, and labor. At the same time, energy prices are sky-high. Ports are congested and inflation is biting. There are a number of reasons for the shortages — in some cases, it's historical capacity that's unable to keep up with demand growth; in others, the supply disruptions are due to a lack of workers or shipping containers.

In this digital-first business era, supply chains are undergoing a seismic shift. Supply chain professionals who have studied and operated supply chains for decades have always talked about the importance of visibility, agility, and resilience. But in a world that is inherently more disruptive than in the past, visibility, agility, and resilience are even more important than ever.

## What is supply chain resilience?

Continuous volatility and heightened uncertainty will be the new normal.

This requires resilient supply **chains** that are and intelligent, and that enable agility.

highly transparent

Supply chain resilience = visibility + intelligence + agility





Ability to

understand







Visibility is the ability to see any disruptions in the supply chain as they develop in real time.



Intelligence is the ability to quickly turn massive amounts of data into focused, actionable insights.



Agility is the ability to execute and respond quickly.

It's not just important to see but also to act — and act fast — to be a truly resilient supply chain.





While we are all still managing disruptions and unpredictability, our company is now striving for a balance in sufficiency, efficiency, agility, resilience, and sustainability. That includes investments in digital tools all the way from basic visualization tools, which we call descriptive, to more predictive tools that help us understand the next possible drift, and then playing into the prescriptive space for managing it. These include simple bots as well as Al tools and digital twins. What's important is that the data is accessible end to end so our customers are well informed ... our edge is in reading the trends in real time and then being very agile in responding and executing with high impact.

Head of planning and logistics at a global leader in alcoholic beverages

Although supply chain resilience is critical in today's disruptive environment, manufacturers have often found it difficult to fully detail the business case, justify its return on investment, and build the necessary internal capabilities. In a calm, predictable environment, resilience may well be a "cost" that can't be borne. In a chaotic, unpredictable environment, however, manufacturers can't afford to ignore it.

The past couple of years have revealed persistent cracks and vulnerabilities in the supply chain, giving organizations a great opportunity to transform their supply chains and become truly resilient.

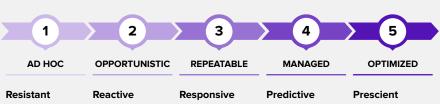


Source: IDC SC Survey, March 2022

Organizations are at various stages of their digital supply chain resilience journey. It's clear, however, that organizations now compete in a fast, disruptive, information-intensive digital-first world in which the new supply chain complexities can't be handled the old way.



## IDC MaturityScape Benchmark: digital supply chain resilience — maturity distribution across the stages



Focused on functional metrics and performance, without consideration for the digital tools or key processes to identify, anticipate, or effectively respond to disruption.

Some adoption of digital tools, but siloed and sporadic and poorly linked to key business processes resulting in limited identification or anticipation of disruption.

A range of digital tools is in place, and the beginnings of supply chain resilience are established, but capabilities remain disconnected and key process and disruption response is modest.

Digital tools are well established and effectively connected to key processes, resulting in good capabilities to identify, anticipate, and manage disruptions proactively.

A digitally enabled, thinking supply chain that can easily and comprehensively identify and anticipate disruptions and either mitigate them ahead of time or be prepared to react quickly when they

occur.

About of global supply chains consider themselves to be in Stages 4 and 5 of maturity, whereas only 7.8% of organizations consider themselves to be in Stage 1.

Most organizations are in Stages 2 and 3, where adopting digital technologies to identify and anticipate disruptions in the supply chain is central.

Organizations should aim to move from one stage to the next by taking appropriate measures, step by step.

Source: IDC MaturityScape Benchmark: Digital Supply Chain Resilience Worldwide, 2022 (n = 620)

The use of digital technology as an enabler of supply chain resilience is inevitable. Digital supply chain management platforms have been available for some time. But what makes such systems effective is the presence and availability of reliable data. The more that organizations share data and actively participate in the network, the greater the transparency and flexibility of the results.

Disruption has impacted the whole supply chain, so the capabilities and tools to better manage risk — both proactively and reactively — must reflect that. To secure end-to-end visibility across the value chain, organizations must mesh IT systems and physical devices. These include heterogeneous and legacy systems. Networks include diverse assets, often including multiple connected architectures. Organizations should work with technology vendors to ease the transition to a converged, human-digital interaction environment.

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