



# Operations & Supply Chains After COVID-19

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There's a lot of discussion around what the world is going to look like after COVID-19. There's even discussion around if there will be an after COVID-19 world or if we will need to get used to life with the virus and adapt our personal lives and business models to this situation.

Not all the debates are meaningful, but statistically, one of the most frequent conversations is about how operations and supply chains will change.

I had the opportunity to discuss the topic with several of our clients and I can confirm they are looking very carefully at all the changes COVID-19 has and is going to force. The difficulty is that this is going to be a really

disruptive transition. It was not planned and there was no time to design around it. The crisis just happened and made all the weaknesses of the globalized supply chains visible.

For many years we (i.e. system integrators working in with manufacturing execution systems (MES) and manufacturing operations management) have been asked to implement and rollout systems to coordinate and optimize supply chains, reducing stocks as much as possible and guaranteeing just-in-time (JIT) delivery of components and subcomponents. Reduction of stock equal to reduction of costs was the mantra.

It's not just a matter of production planning, order management, and warehouse management, it's an organization and culture that deeply impacts the operations. Everything in production is JIT. Operations of supply chains has to work as a complex precision clock ticking at the same pace.

Of course, this model was the first to be impacted by the COVID-19 pandemic. You can just think back to the automotive and electronic devices industries that were among the first to stop production because of the unavailability of components. Not only were the required materials not produced, but even if they were produced locally, they could not be transported or delivered. The combination of JIT (no stock) and global supply chains was a powerful mix that was able to screw up the best organizations.

If this is true for the supplier side, it's equally true for the client side. Despite being in the middle or at the end of the chain, the go-to-market strategy needs to be adapted, and so does the way you schedule and organize production.

One side effect of the pandemic was even that many supply chains were dramatically shortened. In few weeks, all of us had to become more digital, and even the most reluctant had to adapt to survive.

At the personal level the physical social proximity has been replaced by the digital social proximity. At the business level many small producers have learned to put their strengths together to bypass the distribution channel and reach the consumers directly. There are hundreds of examples in many different markets. This could be considered just a minor change, but it can have a deep impact on many industries and on supply chains that are dramatically shortened.

For these reasons, and many others, several clients are working on adapting to a potentially different marketplace. They are re-designing the production processes to move JIT to Stock, they are looking for different clients/suppliers/partners to localize supply chains (at least partially). Global companies that are relying on global supply chains are going to try harmonizing the global portion and the local portion considering not only cost reduction, but even risk mitigation. Some companies are considering extending their production in order to be self-sufficient for strategic components.

It is not only a potentially dramatic change, it's extremely complex since it's happening in a situation of great uncertainty. No one is able to predict what the situation will be a few months from now. The sudden change we have gone through has destroyed many of the pillars we were basing our decisions on. We lost many reference points and we are trying to find a new route.

In this scenario the role of system integrators will be strategic. Adapting the production processes will be a priority and will require both automation and MES skills. Production processes and supply chains will be digitized, and the role of data will become even more centric. The market could become even more fragmented and new players could need our support. The need of flexible, fast, adaptable, and scalable systems will grow. But most of all, in my opinion, the relationship with our clients will need to move to a different level. It needs to become a real strategic partnership because achieving such strategic goals in a very short time requires a well-tuned and strong team.

*Originally published on [Automation World](#) - Jun 29th, 2020*