Ahead of the curve

by Marian Pufahl, *CEO and Co-Founder, Synfioo*

Supply chains – especially those heavily focused on sea freight – are becoming more and more complex. Globalisation and newcomers wanting to have their cut continue to shape the trade landscape, but so do black swans, like the corona pandemic or the Suez Canal crisis, two events which have recently catapulted resilience atop the supply chain managers' 'wanted list.'

Let's face it: 2021 was a tough year – especially for the logistics sector. Supply chains had been increasingly disrupted, in some cases completely cut because of unforeseeable events. The unhinged spread of COVID-19 has severely impacted industrial production. Border and port closures, infections, and plant shutdowns have caused raw materials and manufacturing parts to arrive late or, in the worst cases, not at all. It did not only affect sea freight – the impact on air and land was also manifold. Meanwhile, the sudden loss of demand has also led to a production standstill in some industries.

The March 2021 blockade of the Suez Canal by the 400-meter-long container giant *Ever Given* has left global trade in complete disarray. The mega freighter was grounded for six days, blocking the passageway through which 30% of the world's shipping container volume and 12% of global trade transit. The stoppage has resulted in a massive backlog of vessels waiting to go through the canal and various ships rerouting around Africa, thus adding about ten days to an Asia-Europe journey. Disrupted sailing schedules meant a surge in ocean vessel arrivals, adding to port congestion and increasing container dwell times. Long story short – these events have shown even more clearly how fragile global supply chains truly are.

National vs international supply chains

Since the perturbations of the pandemic and *Ever Given* still extend into the fourth and therefore the busiest quarter of the calendar year, various political discussions about a possible supply chain shift back to Europe have come up yet again. After all, companies have been forced to restructure their supply chains and sales channels regardless. So why not reduce dependence on foreign suppliers and make one's economy more crisis-proof?

The answer is simple: globalisation, though seriously challenged by other disruptors such as the China-US trade war, cannot be reversed (not even on the whim of the world's most powerful politicians). On the one hand, relocation leads to the loss of specialisation, less product diversity, and the elimination of comparative cost advantages. Instead, companies will more likely pay increased attention to creating redundant supplier networks and adapt their supply chain management to maintain the flow of goods more easily in case of another meltdown.

On the other hand, geographical proximity does not automatically mean greater supply reliability, as disruptions can also occur locally at any time (think the sudden dip in road haulage capacity in the UK post-Brexit). In return, it is pivotal to use data-driven forecasting to predict disturbances to react in the best possible and most flexible way.

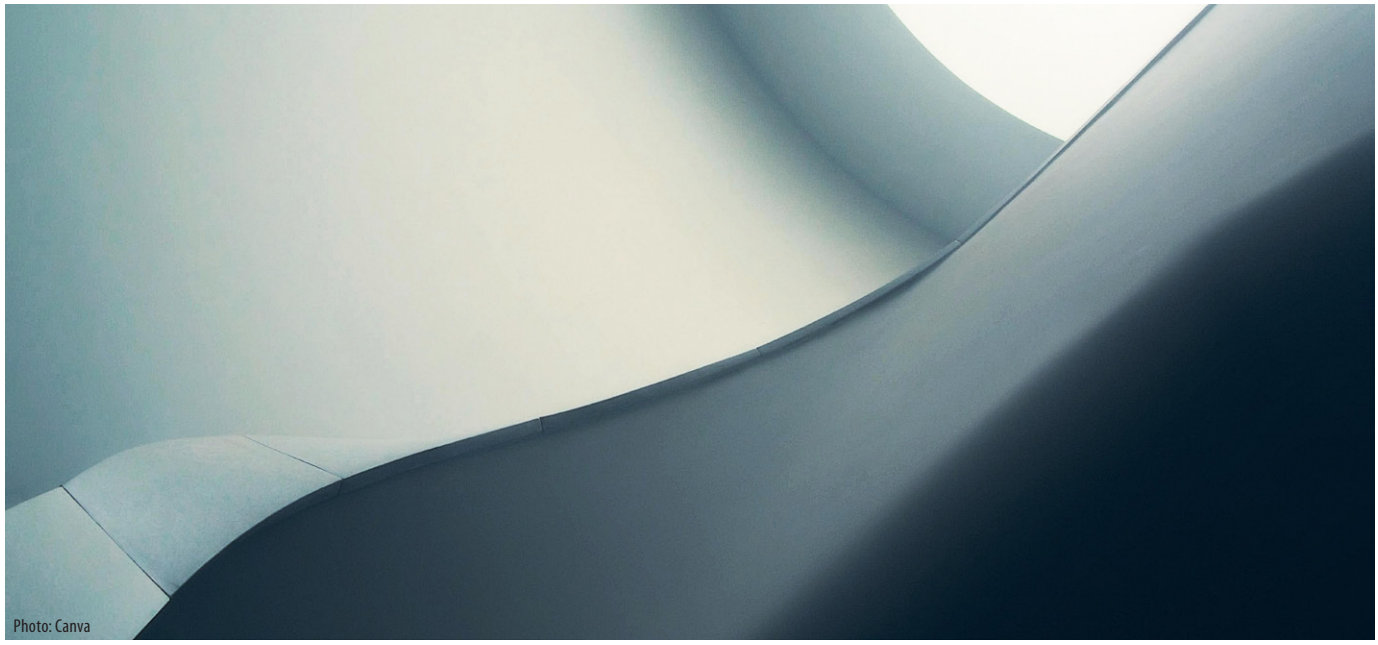


Photo: Canva

Out with the old, in with the new – but how?

The brutal fact is that the disruptive factors repeatedly exposing supply chains cannot be prevented. They can, however, be counteracted, with delays reduced to a minimum. On top of that, it is precisely in these situations that competitive advantages arise through certainty in decision-making and fast reaction times. Transparent and proactive supply chain management is mandatory to maintain the flow of goods more easily in challenging times.

Resilience – the ability to respond agilely and flexibly to new situations and challenges – is one buzzword that must be drummed home time and again. It is *the* central component of any company's resistance to crises. Transparency is, in turn, crucial to reduce the pressure of supply chains and increase one's resilience. To that end, it is essential to connect all supply chain parties involved and to ensure their access to relevant information. The following four steps are imperative.

First, integration of real-time information. Large amounts of data are generated every day along the supply chain. With the data pools collected, managed, and analysed at one central location, the estimated time of arrival (ETA) can be calculated. This way, companies can benefit from automatically shared events – such as the arrivals of containers, transhipping processes, or subsequent transports – and status updates along with alerts regarding possible delays.

Second, flexible resource management. In general, a close look at logistic processes can help to spot potential weak points. By eliminating them, companies can use financial and time resources in a more targeted way.

Third, transparent and smooth information exchange. To know where a particular transport is at any given moment results in transparent and smooth communication with many benefits for suppliers and customers alike. If all parties in the supply chain are aware of the current shipment status, this facilitates communication and ensures optimal capacity planning, thus increasing customer satisfaction.

Finally, quick and proactive decisions. Unforeseen events and disruptions are, paradoxically, always to be expected. That said, keeping an eye on every single transport and checking for possible delays eats up precious time and resources. Instead, by sending alerts directly to the relevant endpoints, companies can monitor these critical parts of their supply chain, reschedule quickly, and make transport processes more efficient.

In need of a knowledge boost update

Innovative solutions based on Artificial Intelligence (AI) are of the essence to implement future-oriented supply chain management. The support they can give managers includes actionable insights and forecasts necessary to adapt supply chains to new challenges in a flexible and agile manner.

However, the mindset of many companies needs an update as well since most retailers are lagging far behind when it comes to digitalisation. Whether retail or wholesale, a recent **bitkom study** states that 73% of enterprises see themselves as laggards regarding going digital. A "breathtaking" 2% are prepared to invest in modern tech solutions on a long-term basis.

Yet, doing so is more than worth it. AI-powered solutions can combine specific transport-based data with location information, add external sources, such as water levels, ship schedules or the port lay-time, and precisely calculated ETAs with the help of machine learning algorithms. The predictions can even be refined over time, granted good quality data goes in.

With such a significant knowledge boost, companies can monitor waterborne transports and planning processes, avoiding financial losses or penalties due to delayed shipments. Consequently, trading companies can position themselves a decisive step ahead of their competitors by establishing an integrated supply chain management, end-to-end transparency that includes all parties in the supply chain, and intelligent logistical processes. ■

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Logistics can be complex and opaque – Synfioo changes this by bringing transparency into global supply chains with the help of Artificial Intelligence and machine learning. With early disruption notifications based on over 70 external data sources and precise time of arrival (ETA) forecasts, companies can coordinate transport and planning processes as well as avoid major financial losses due to delayed transports. Visit **synfioo.com** for more details.