

# INFOSYS SUPPLY CHAIN INTERVENTIONS AND EARLY WARNING SOLUTION

Infosys  
cobalt





As the COVID-19 crisis upends well-established demand and supply cycles, enterprises seek to understand the impact and devise responsive strategies to cope with present challenges. They are faced with questions such as if a country is likely to impose an export restriction on a product, how soon will the sourcing team get to know of it? Is it only when

the supplier communicates about it or when such a restriction is reported in that country's press? Similarly, is there a data based recommendation engine that can suggest alternate suppliers when the primary one fails to supply? Or suggest suppliers from external data that are not limited to the organizations vendor database?.

## A unified view from detection to intervention

Infosys Supply Chain Early Warning solution offers two fold interventions strategy and aims to address these challenges by providing tactical capabilities that are subsequently enhanced to become strategic. With tactical interventions and supplier recommendations, our solution focuses on three aspects of the supply chain:

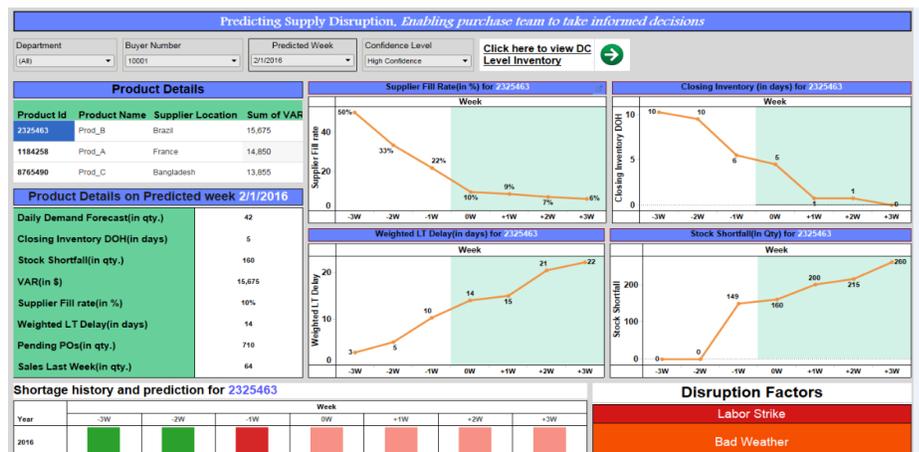
Sourcing	Transportation	Tracking
<p><b>Early warning systems</b> tracking news blogs and websites around the globe to identify any decisions, events, or lockdowns that can impact your supply network or ports your supply chain use.</p>	<p><b>Updated data on opening/ closing hours</b> of gas stations and hotels en route so that drivers are assured about long distance routes feasibility. If you have a fleet and drivers of your own, this would ensure smoother fleet operations.</p>	<p><b>Dashboards for company leaders and B2B customers</b>, showing the products not being delivered and in this case, where are the components stuck – at manufacturing, in transit, at customs, etc.</p>
<p><b>Reverse auction for suppliers of items</b>, allowing the ecosystem to self-discover. Cost forecast from recent data allows setting of ceilings for these auctions as well as provides a view of the impact.</p>		
<p><b>Next best supplier recommendation engines:</b> if an update is received that a supplier will fail to supply. Who should be the next supplier to move that order to? These engines leverage data on suppliers from external data sources to allow quick identification of new sources.</p>	<p><b>Optimize logistics:</b> cost reduction is the key during and after any global crisis, so new ideas are needed to reduce transportation costs. The Infosys solution goes beyond a single day load optimization to take orders over a period of a week or more and optimize without considering pickup and delivery dates as hard constraints.</p>	<p><b>Capture human intelligence real-time:</b> with a global map that a supply chain personnel in a local office location is able to access and update. This could be information obtained from suppliers or 3PL. An example of such an update would be about a supplier S of this city or region, has shut operations and can meet demand only for the next 2 weeks. Multiple such inputs from local offices allow the tracking map to be 'live' and dynamically reflect recent information.</p>

## Enhancing strategic sense with AI and automation

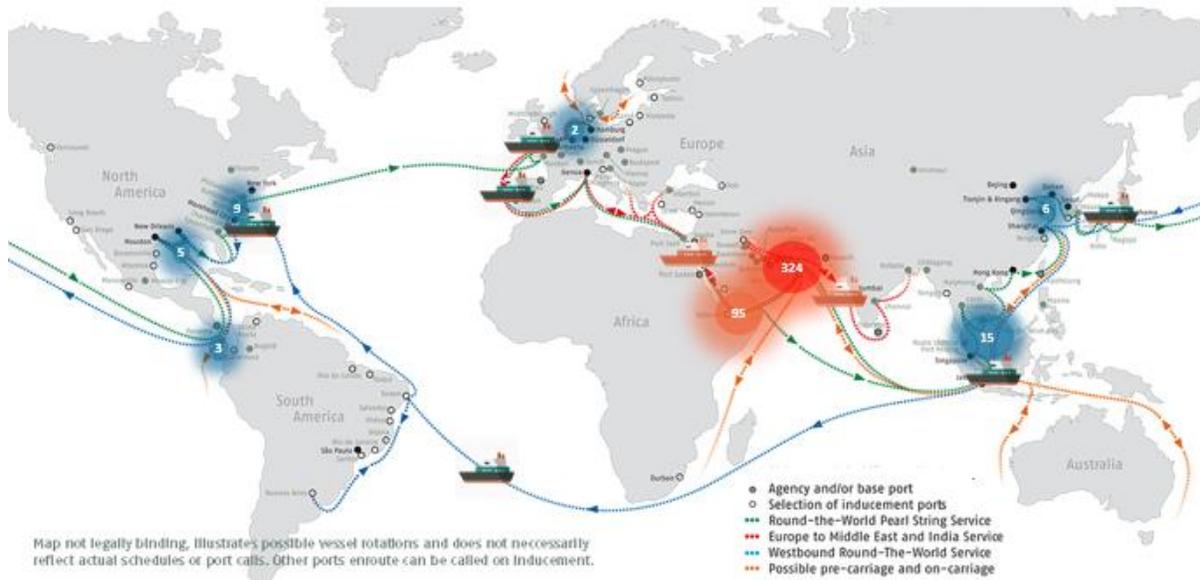
These sourcing, transportation and tracking interventions are taken to a strategic level using advanced analytics as follows:

- 1) Early warning enhanced to include impact probability. Converting a predicted event to an impact probability based on history from past events in similar countries such as Hong Kong protests, forest fires in Australia, floods in Bangladesh, civil war in Syria, etc.
- 2) AI-led risk scoring based on supplier defaults in the past and linking it to their factors such as financials, nation, ownership (part of a conglomerate), size, past delays, ethics audits, labor productivity (surrogate for automation), etc. This will feed into a "supplier recommendation engine" that can select alternate suppliers in case of shortages from a current supplier.

From heat-maps to disruption factors to early warnings, the solution delivers multiple proactive and reactive views of stresses in the supply chain and areas of opportunity for reconfiguring the operating model.



## Supply Chain Early Warning Dashboard



## Overcoming volatility for large enterprises

### A leading apparel brand



Supply chain dashboards showing inventory levels, demand levels, delays and open orders were created to enable decision making for supply chain managers. Now the dashboards also include store closures, density of pandemic, and online demand too. Additionally, using store stocks to fulfil online demand reduced fulfilment costs.

### A leading grocery retailer



Infosys leveraged orders and fleet capacity constraints and added degrees of freedom to the optimization by seeking tolerance threshold inputs for pick up dates and delivery dates. Flexibility in constraints reduced transportation costs by about 5% in spite of limited tolerance levels provided.

### A specialized European retailer



A global supply chain map with all supplier and transporter locations data organized in a proprietary framework was created. Events were identified early in time by leveraging External social media and news blogs data using proprietary dictionaries. This helped predict shortages and likely delays with an accuracy of more than 75%..

## Sensing fast, responding faster

From early warning systems to supplier recommendations, these are essential

interventions in any supply chain dependent firm during these testing times. Contact us for a customized plan: we are committed to putting in place

a solution that works to understand the intricacies of your supply chain and is configured to deliver the outcomes you need

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