

Point of view

# COVID-19 : THE SUPPLY CHAIN FUNCTION ON THE FRONT LINE

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*May 2020*



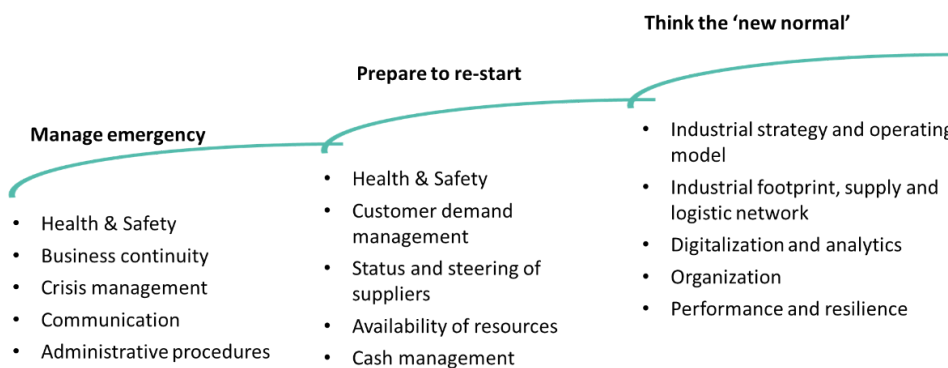
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**The COVID-19 crisis has brought to the forefront both supply chain and the Supply Chain function. A recent cartoon indicated that the Supply Chain is now as critical as coffee in managing the crisis.**

**It is critical for:**

- **Ensuring continuity of business & operations when the acute crisis occurs**
- **Restarting operations**
- **Adjusting to the 'new normal' in the mid-term which is sure to be volatile, uncertain, complex and ambiguous ('VUCA')**

## Illustration 1 : 3 horizons of action for Covid-19 supply chain response



### 1/ Organizing the Continuity of Business & operations

The Supply Chain teams have been on the frontline during the Covid-19 crisis, and will again be on the frontline in potential further outbreaks, be it :

- Organizing the supply of PPE (Personal Protective Equipment)
- Implementing downgraded working modes for Supply Chain teams (remote work, remote access to tools, supplier contacts)
- Managing “stop & go” operations, based on an end-to-end view, integrating customer deliveries, vendor deliveries, inventory management, resource availability, etc.
- Redirecting production means toward new types of production (production of hydro-alcoholic gel, production of PPE, incl. additive manufacturing, up to manufacturing of respiratory medical devices).

The “lockdown”, potentially “the first episode” of lockdown, helped organizations gain experience on appropriate crisis response, which will only be beneficial in the event of a second wave. Documented and disseminated procedures particularly enable proper management of the initial “shock” phase.

Initial feedback shows that an orderly and coordinated suspension of operations is critical for an orderly and coordinated restart.

### 2/ Resuming operations

This phase seems to us to be the most critical today. It takes place in a particularly uncertain and changing context, after an abrupt halt in operations. In this type of situation, “back to basics”, even if it means adapting them, is generally a relief to the organization. We illustrate 3 key principles for the restart of operations:

#### 2.1 – High frequency, transparency & collaboration

Without parts, components, or skilled resources, industrial or service activities will be difficult to restart efficiently. Preparing to restart operations involves joint planning, transparent to both customers and suppliers, with an adequate frequency, based on the following parameters:

- Customer need / request: restart date, specific logistical constraints, risk of changes, etc.

- Supplier capacity: risk of default or “no-restart”, restart date, level of activity in production / quality / support, specific logistical constraints, risk of changes, or even stock coverage and status of work in progress.

A high frequency of exchange is beneficial, opening the door to new modes of information sharing (e.g. supplier watchtower, Air Supply platform in aeronautics), including at a detailed level of granularity.

In most cases, B2C sectors are accustomed to high frequency exchange, whereas B2B sectors are much less so. It will be necessary for operators not only to make forecasts, but also to establish a set of assumptions and frequently monitor deviations from that baseline.

## 2.2 - The art of industrial planning - Back to basics

The planning cascade is traditionally based on 3 tiled horizons:

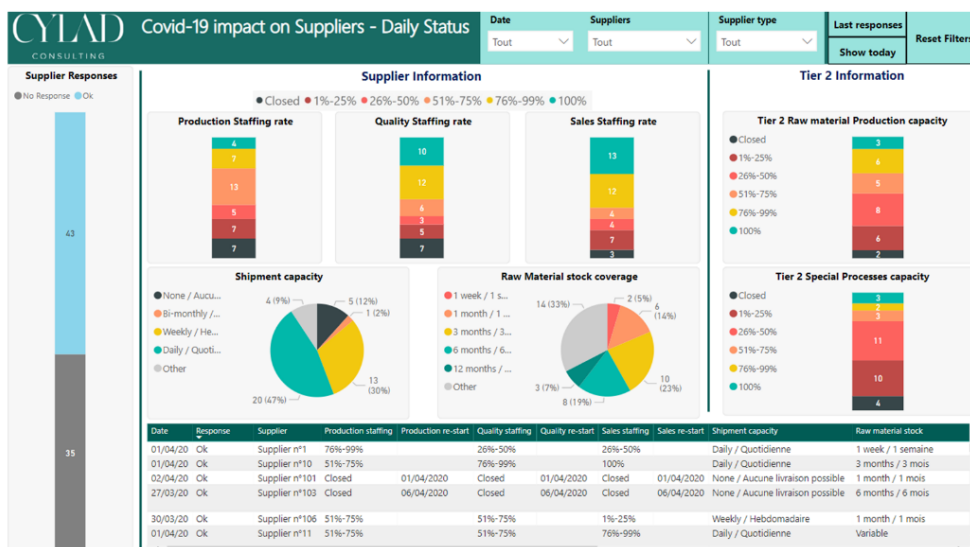
- In the very short term, production scheduling allows for precise control of the production, based on a detailed and accurate view of the situation
- The Master Production Schedule enables matching of load vs. capacity for different means of production
- The Sales & Operations Plan (S&OP) enables longer-term planning in the form of scenarios and hypotheses

In order to feed the steering routines or rituals with information to make the right decisions, a well-designed planning system is based on:

- A consistent and thought through cascade of horizons, granularity, and frequency of computation
- Information from reliable, recent, and analyzed data

In 'normal' times, the planning system (too) often leaves room for approximations and imperfect data. Volumes and habits contribute to a myriad of mistakes.

### Illustration 2 : Example of supplier network surveillance - Daily status




When a crisis occurs, the rigorous application of this cascade of planning and rituals is a real lifeline. It comes with several conditions:

- A set of demand assumptions makes it possible to re-calibrate calculation and control systems on the new basis. In industrial sectors structured along OEMs and tier 1 / 2 suppliers, industrial leaders have a key role to play in cascading a new reference, especially when exchanges are largely electronic (machine to machine).
- The system, because it is more fragile, is less resilient to inaccurate data (inventory, logistic family, reorder thresholds, standard times, Bill of material). Therefore, potential idle time or off-peak hours can be efficiently used:
  - To make reference data more reliable (Master Data)
  - To set-up advanced data analytics tools enabling, for instance, to anticipate problems (early warning) or to navigate BOMs to single out a specific supplier
- In addition, the new context of demand and production means may require adjusting some parameters to remain relevant, for example:
  - Shorter horizons (especially frozen horizons)
  - Lower replenishment thresholds, batch sizes, MOQs, production runs or supply cycles
  - More frequent and rapid arbitration and decision-making routines, in a truly transversal but centralized approach: transversal therefore cross-functional (Sales admin., Purchasing, Supply chain, Production, Finance) but also vertically connected between operational staff and general management
  - Local vs. global optimization across the supply chain, including securing order volume from a cash-strapped supplier
  - Pragmatic, flexible and smart use of operational KPIs to focus on the most relevant decisions to restart activities.

Restarting operations without a good control and understanding of the planning system unfortunately promises to be painful, in terms of energy spent, operational (e.g., OTD) or financial (e.g., dead stock) performance.

### Illustration 3 : Industrial planning system



	Scheduling	Master Production Schedule	Sales & Operations planning
Example of decisions	<ul style="list-style-type: none"> <li>• Priority WO</li> <li>• WO on hold</li> <li>• Overtime</li> </ul>	<ul style="list-style-type: none"> <li>• Resource allocation</li> <li>• Temporary work</li> </ul>	<ul style="list-style-type: none"> <li>• Insourcing</li> <li>• Supplier qualification</li> <li>• Capex</li> </ul>
Granularity	Part Number	Part Number / family	Product family
Time granularity	Day	Week	Month
Horizon	2-4 weeks	12-24 weeks	18 months
Frequency	Daily / Weekly	Weekly	Monthly / quarterly

## 2.3 - Supply chain risk management

Crisis management and disaster recovery tools exist, but they are either infrequently used (Europe) or ineffective (US).

Carrying out an exhaustive analysis of the risks linked to the restart of activities is generally a useful exercise to:

- Share the perspectives of the situation and limit blind spots
- Anticipate and manage potential blocking points
- Prepare for the next crisis

## 3 / Prepare the "new normal"

A return to "normal" is a mere hypothesis, probably not the most likely one. The current crisis promises to profoundly shift some balances and raises a number of questions:

- Can the cash frugality of industrial operations become a critical driver for the supply chain? Is this a good reason to strengthen the S&OP process?
- In an uncertain, complex, and volatile world, should we revert to the practice of using scenarios, including fallback scenarios, and explore each option through multi-variable simulations.
- Is the crisis an opportunity to put the idea of collaboration and transparency between suppliers and customers back on the table, ensuring information sharing and of global optimization? Digital analytics and smart data technologies provide concrete and affordable solutions.
- If the resilience of supply chain and the supply chain function in particular becomes one of the primary objectives, along with efficiency, what needs to be changed in the Supply Chain function's operating model (e.g. processes & tools, information systems, organization/steering, skills, or mindsets)?

## Illustration 4 : Supply chain operating model



CYLAD Consulting assists its industrial clients in dealing with these issues, in order to face the crisis or prepare for the future, whether it be through its team specialized in Supply Chain & Purchasing or its Smart Data team.

We are happy to exchange points of view and to offer our services to explore these new perspectives.