

Supply Chain Risks 2020 Barometer

Testing the Supply Chain's resilience to the pandemic





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Management consulting

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Created in 2000 and the result of close collaboration with companies, the Specialized Master® Global Risk Management is in line with the philosophy that presided over its creation: only a cross-cutting, multidisciplinary and integrated approach to risks, based on solid scientific foundations, can enable us to deal with today's uncertainties.



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01

INTRODUCTION

COVID-19 has brought the Supply Chain to the forefront by revealing its strategic role in a globalized economy, both for governments and companies.

While the onset of the crisis in China highlighted the dependence of Western countries on what has become the world's workshop, the extension of the pandemic to all countries generated a simultaneous crisis of supply and demand and led to an unprecedented recession for the entire global economy.

The difficult control of contamination and uncertainty about when a vaccine will be available is weighing on the recovery and the resilience of companies already hard hit by months of health restrictions.

The aim of this Barometer is to inform Supply Chain and Risk managers on the threats ahead and on the solutions to be favored in order to improve their resilience in a crisis context that is likely to last for some time...

Could Resilience be the new Holy Grail for businesses?

COVID-19 has led to the biggest crisis ever experienced by the global Supply Chain since the beginnings of globalization nearly 40 years ago.

Brutal and unprecedented, this event has brought into the open the interdependence of real economies in a similar way to the 2008 crisis for global finance. Companies are interconnected through an increasingly complex Supply Chain and are exposed to the failure of the links that make it up.

In their quest for competitiveness, companies have often overlooked the need for security, pursuing their policies of delocalization, global sourcing and concentrating their supplier panels, stocks and logistics flows, while ignoring the players who operate them and the associated risks.

The 2019 Supply Chain Risk Barometer showed a total underestimation of the health risk considered as one of the least likely and least impacting for the Supply Chain!

While it remains very complicated to predict at company level, the scale of the crisis has exposed the weaknesses of today's organizations.

Today, it is no longer permissible to manage crises on a day-to-day basis. It is time for the Operations, Purchasing and Risk Departments to work together to implement resilient Supply Chains, capable of anticipating and managing occasional or major failures, whether in a key link or in a particular sourcing or sales area.



Laurent Giordani
Founding partner

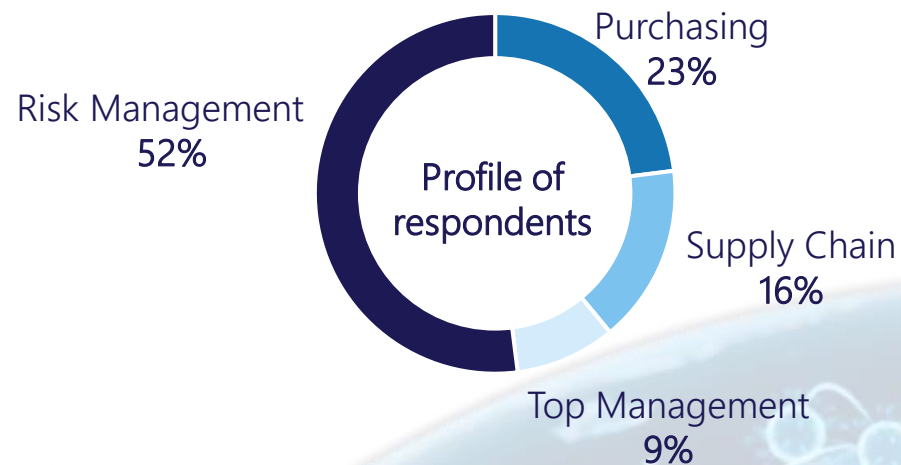


Thibaud Moulin
Partner

Scope of study

For this second edition of the Supply Chain Risk Barometer, we have focused our attention on the Covid-19 crisis, while maintaining a broader vision of the risks to come.

We sent our questionnaire to more than 500 Supply Chain, Purchasing and Risk managers and obtained nearly 100 responses, which we supplemented with interviews in order to obtain direct testimonials of what some companies went through at the height of the crisis and decided to implement to improve their control.



14 business areas split into 4 main sectors



Aeronautics/Defense & Automotive **24%**



Trade & Retail **29%**



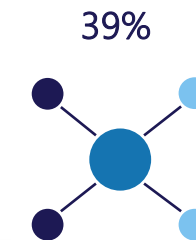
Other Industries **24%**



Networks & Services **23%**

Supply Chain profiles

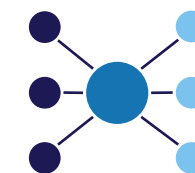
(in number of upstream and downstream partners)



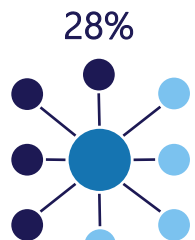
"Simple"
<500

39%

33%



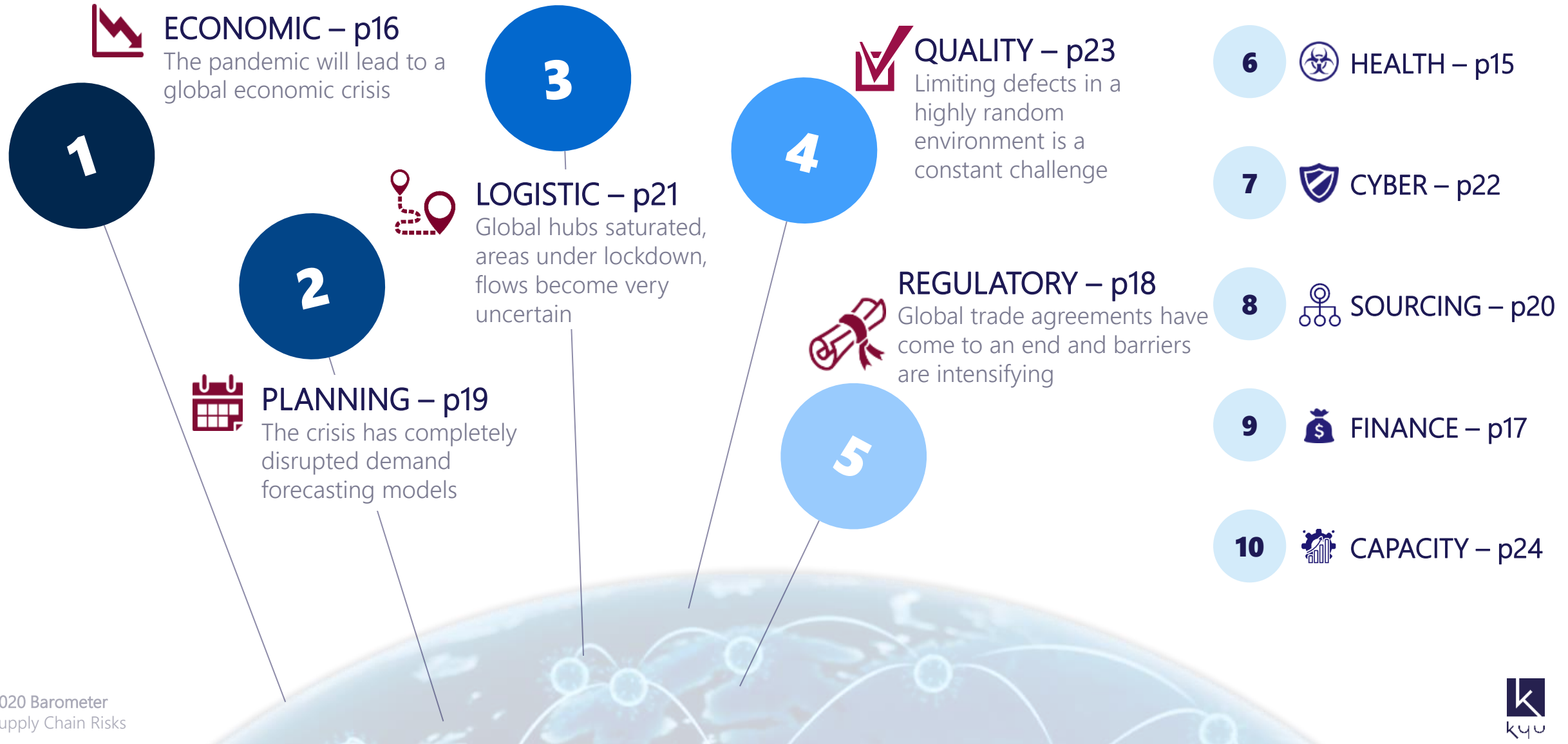
"Intermediary"
<5 000



"Complex"
>10 000

28%

Top 10 Supply Chain Risks in 2020



02

CHAIN REACTIONS

The search for competitiveness, the conquest of new markets, the concentration of supply sources in a given geographical area... so many reasons that have contributed to stretching and exposing Supply Chains over the decades.

The crisis has revealed the complexity and lack of visibility that many companies had on their upstream and downstream chains.

In the face of COVID, they have had to urgently try to reconstitute a map to be able to reorganize themselves on a day-to-day basis in line with the sequence of bad news.



63%

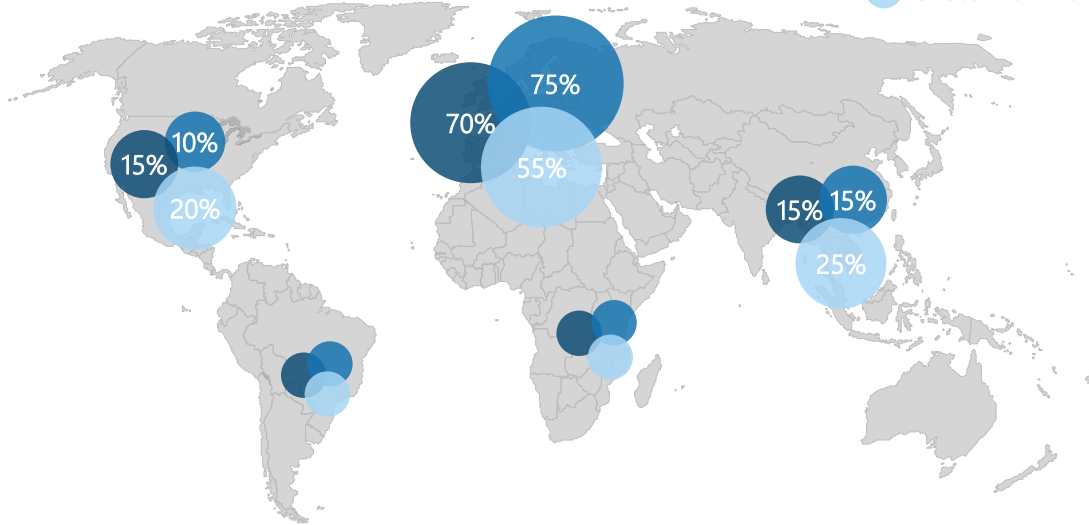
of respondents have a mapping of
their Supply Chain

French excellence in the front line



Location of respondents' Supply Chain

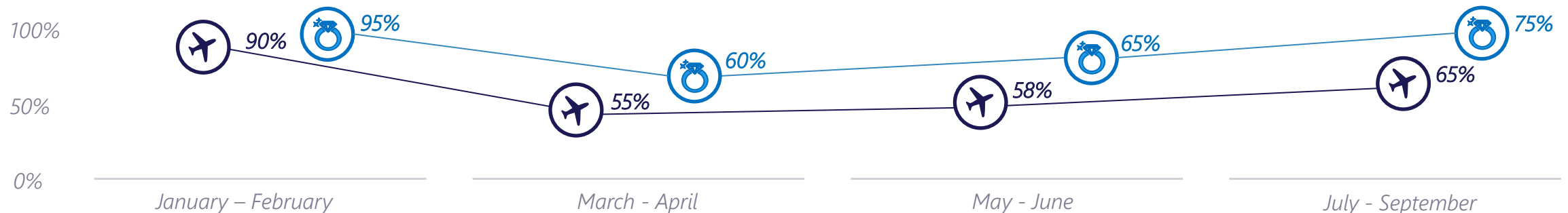
- Suppliers
- Manufacturing facilities
- Customer Markets



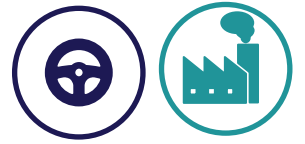
Sectors of excellence in French know-how, Aeronautics and Luxury goods have an essentially European manufacturing base from which they supply the majority of their components (excluding electronics), assemble and distribute their products. They rely on small suppliers with very specific know-how.

The crisis has taken a heavy toll on these sectors, which have been hard hit by the lockdown effects in China, then in Europe and North America. Air France saw its revenues fall by 83% in the first half of the year and posted an operating loss of more than €2 billion. For Airbus these figures are 39% and €1.6 billion respectively. In Luxury goods, the impacts are equivalent with a 40% decline in revenues for Kering and Hermès in the first half and profits divided by 6 for LVMH.

Estimated activity rate during the crisis

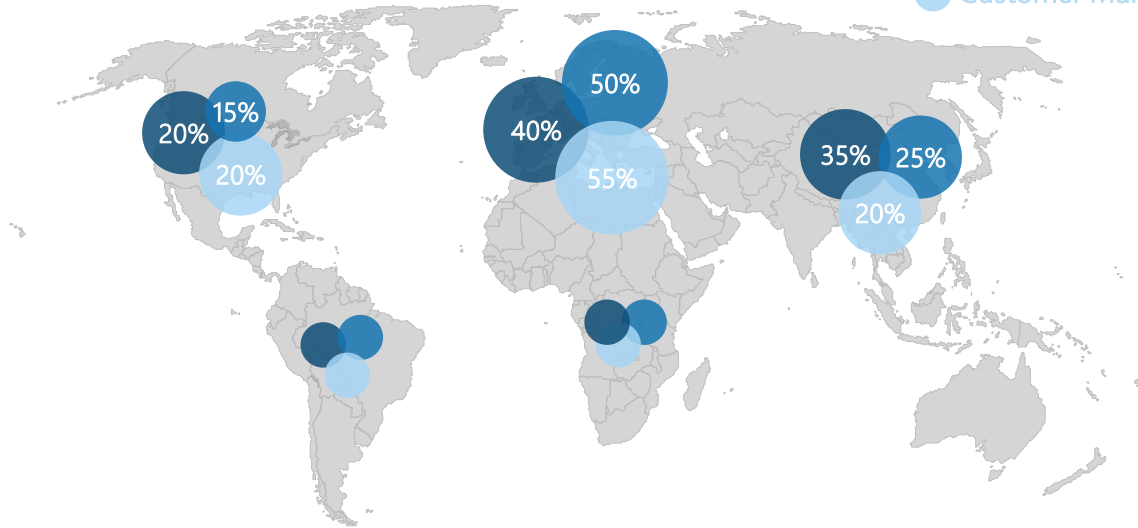


Industry back on track?



Location of respondents' Supply Chain

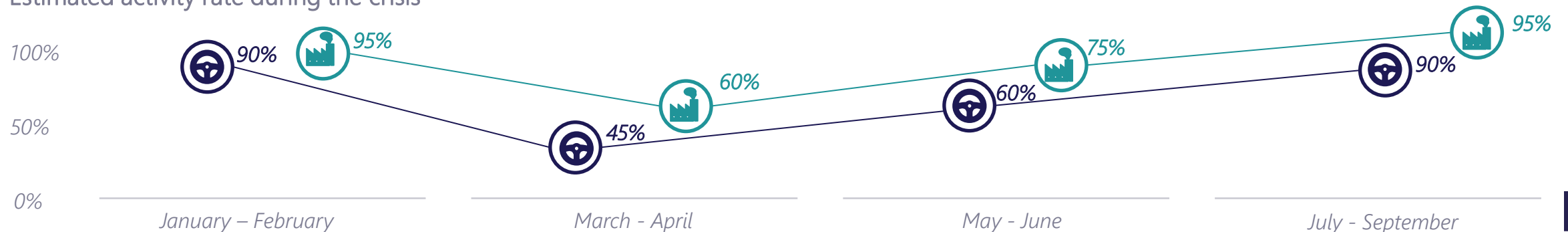
- Suppliers
- Manufacturing facilities
- Customer Markets



The French automotive industry and other sectors such as metallurgy or building materials have diversified their sources and markets while maintaining a strong European base.

The automotive industry, which had been affected by its capacities and markets in Asia since January, really came to a standstill when Europe came under lockdown with sales down 70%. The construction industry also came to a complete halt and is forecasting a 15% drop for the year. However, unlike the aeronautics industry, cycles are shorter and business seems to be picking up again quickly, supported by public incentive policies, with purchase premiums in the automotive sector and the mobilization of €7 billion from the stimulus plan to accelerate the energy renovation of buildings from 2021 in the construction sector.

Estimated activity rate during the crisis

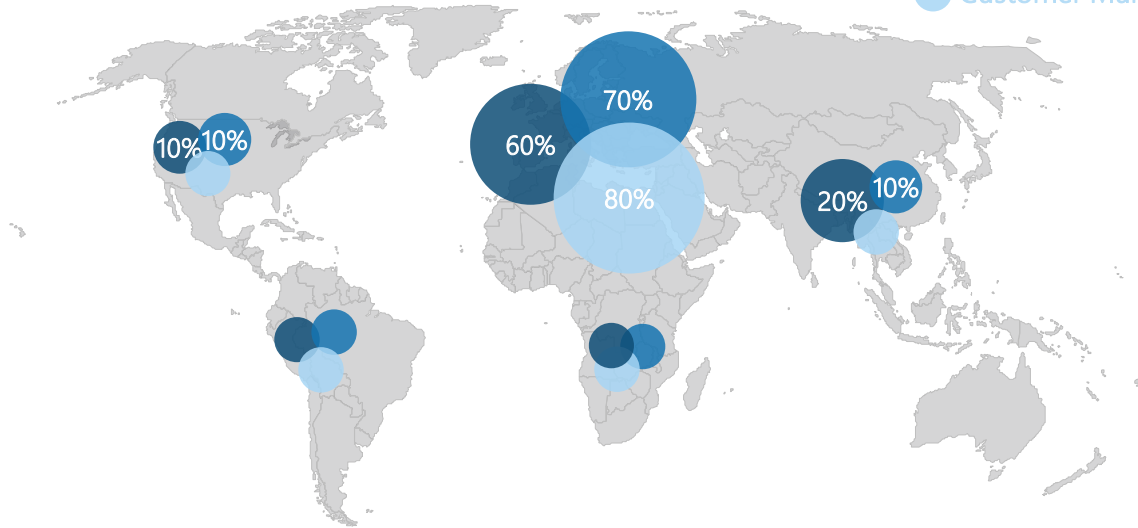


Soon the end of physical trade?



Location of respondents' Supply Chain

- Suppliers
- Manufacturing facilities
- Customer Markets

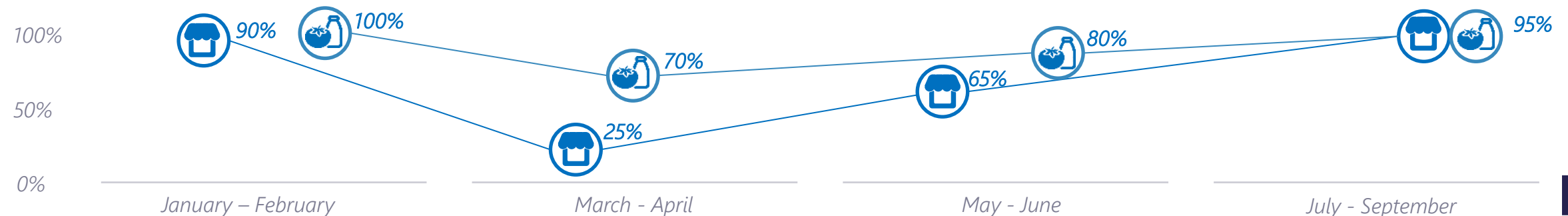


Largely dependent on globalized sources, retail and specialized distribution have been diversely affected by the crisis.

While the former suffered little from the period of lockdown due to the essential nature of its goods, particularly food products, and its multimodal distribution methods, specialized distribution has experienced varying fortunes depending on the sectors, brands and their maturity in terms of e-commerce.

While the return to normal has been stunted by the rules of social distancing that impact the use of physical stores, the crisis has led to profound changes in consumer habits, some of which are set to last and will modify Supply Chain models: a decrease in the pace of shopping, an increase in drive and delivery, trade-offs between local stores and supermarkets, etc.

Estimated activity rate during the crisis

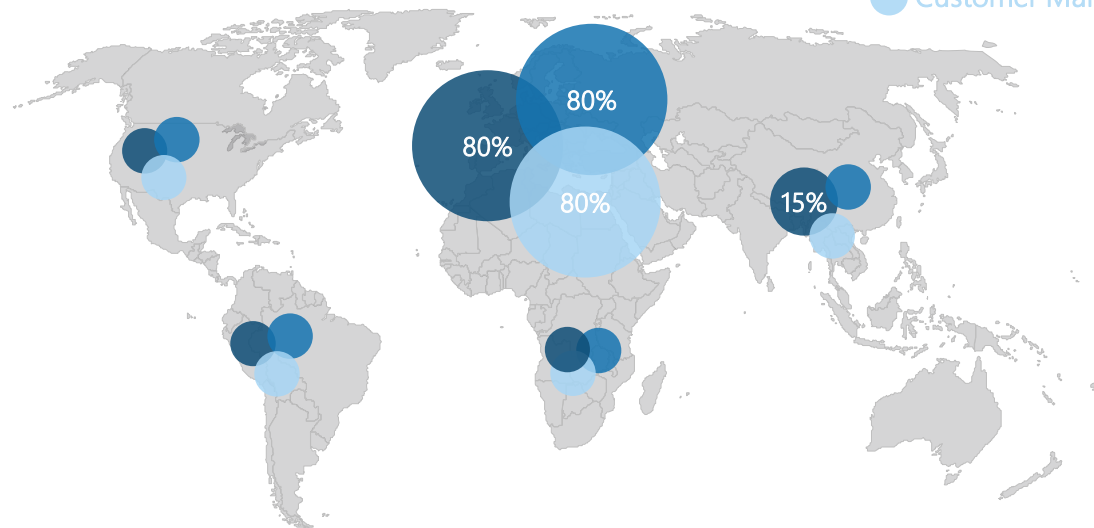


A recurring crisis



Location of respondents' Supply Chain

- Suppliers
- Manufacturing facilities
- Customer Markets

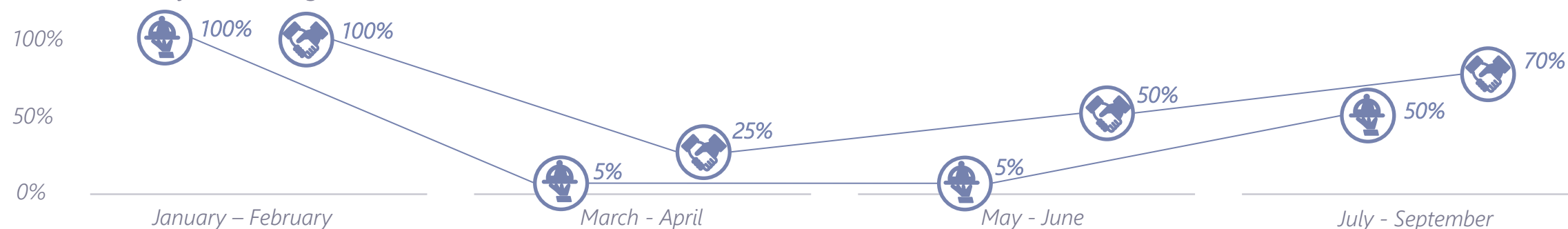


While the Supply Chain of service companies is mostly local, as close as possible to the operations, an increasingly large proportion of consumable supplies are sourced in low-cost areas, mainly in Asia. The crisis underlined our dependence on this when it came to procuring protective masks.

Business services have been affected by the temporary closure of their clients' sites and the general decline in activity. Although the recovery is gradual, budgets are limited and the search for cost reductions is likely to limit the recovery.

For the hotel, restaurant, events and tourism sectors, the situation is even more alarming and uncertain because health and sanitary measures are effectively preventing them from running their businesses.

Estimated activity rate during the crisis



03

SYSTEMIC RISKS

While the COVID crisis has not brought any new risks, it has raised companies' awareness of the potential consequences of a partial or total shutdown of their Supply Chain.

The economic risk is becoming more and more critical, as companies already face or anticipate countless bankruptcies of their suppliers or customers, and a slow recovery of their activity. The health risk is in fact revalued upwards, due to the growing realization of its impact on the economy.

Companies have also seen how vulnerable they can be to planning and logistics risks, sometimes requiring a complete rethinking of the Supply Chain organization.

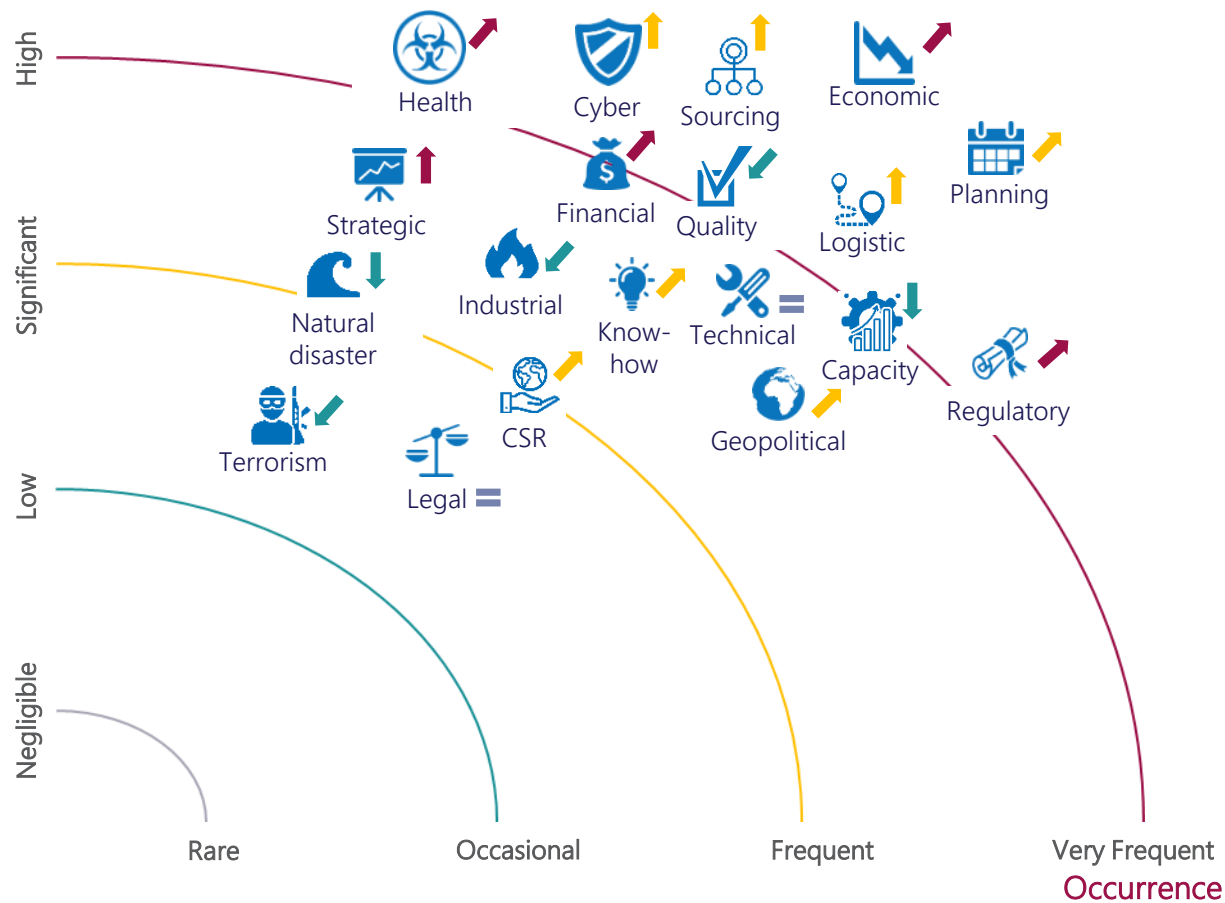


35%

of respondents consider economic risk
to be the most critical

2020 risks matrix

Impact



Main noteworthy developments



An underestimated risk in the past, the current crisis is a reminder that the potential impact of a pandemic can be enormous.



Companies are concerned that a major economic downturn could impact their supply chain.



The cash position of companies is being undermined by the long-term decline in activity and still significant expenses.



Sanitary or protectionist regulatory constraints impact the activity.



Lack of visibility on a demand that varies greatly can lead to major disruptions.



Highlighted by the crisis, the lack of supply sources has proven to be a major pitfall



Congested at the height of the crisis, logistics flows proved to be over-concentrated and under-capacitated.



The digitalization of the economy continues and the risks of disruption or cyber attacks are increasing.

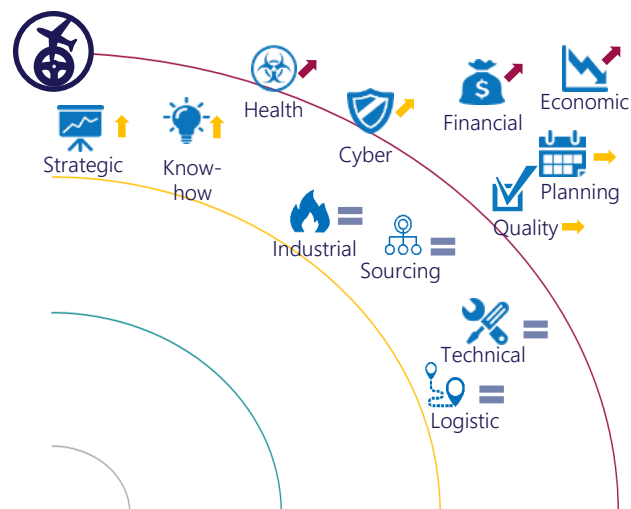


Quality risk remains an operational concern in a context of high customer sensitivity.



The capacities remain dependent on frequent contingencies and COVID does nothing to alleviate the fears of buyers

Analysis by sector

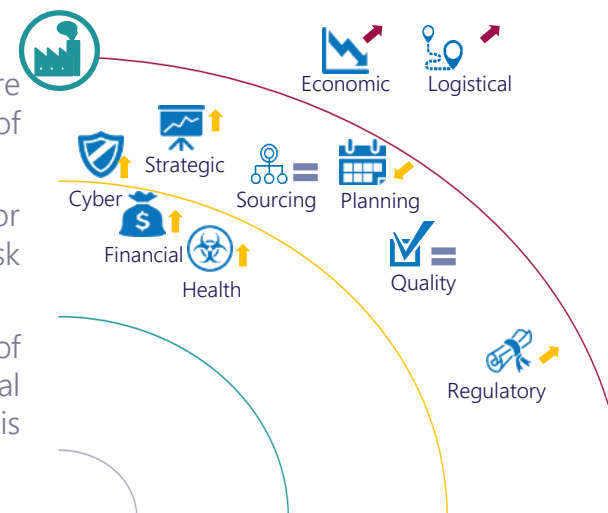


Aeronautics & Automotive

Manufacturers in the sector are worried about the disappearance of their suppliers in the short term.

They are also faced with major forecasting difficulties that pose a risk to quality.

Finding suppliers capable of supporting the future technological transformation in these sectors is going to be a real challenge.

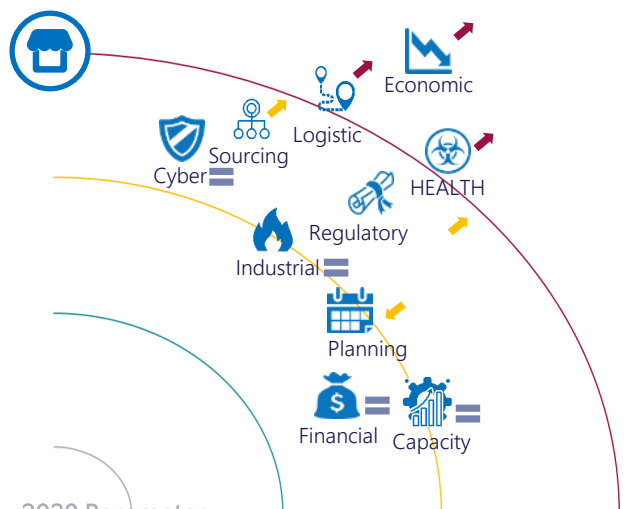


Other Industries

For industry, the shortage of logistic capacities is a recurrent problem that has been amplified by the crisis and travel restrictions.

Threatened by recession, the Industrial sector will have to secure its Supply Chain, probably through a concentration of supplier panels.

From an operational point of view, all sights will be set on planning and quality.



Trade & Retail

The economic crisis will weigh on all levels of the chain, leading to the closure of many stores.

The specter of even partial re-confinement is an omnipresent threat to the sector.

Logistic flows remain tense and a new wave could lead to congestion and strong competition.



Networks & Services

The digitization of services continues and increases the risk of disruption or cyber attacks.

Meeting demand and ensuring an irreproachable quality of service is an ongoing challenge with staff subject to sanitary measures and absenteeism.

The environmental transition seems to be a concern as well as an opportunity.

The epidemic sets in for the long term

After a first wave of alerts on the Chinese Supply Chain in January and February, the virus spread around the world within a few weeks, resulting in the lockdown of almost half of the world's population in early April. For companies, the crisis mode was quickly set in motion. For the vast majority of them, they were able to mobilize at the highest level of their organization to ensure business continuity and the safety of their employees.

Initially faced with a shortage of supplies and transport congestion, it was necessary to draw on stocks, reorganize their location and open up new flows. At the same time, protocols were established to protect employees and avoid contamination in the workplace with adapted equipment, revised operating procedures

and a rethought work organization. This was only possible thanks to a great deal of effort to obtain the necessary information and to organize the activity on a daily basis.

While going into lockdown reversed the contamination curve and suggested an accelerated recovery, the resurgence of the virus and the return of restrictive health measures have since dashed hopes of a rapid return to normalcy.

Despite an unprecedented mobilization of governments and the pharmaceutical industry, the availability of a vaccine will still take months. Until then, companies will have to face and manage the consequences of Covid on their Supply Chain: absenteeism, longer transport times, shortages of materials and components.

"The vaccine, produced in quantity and distributed to those who need it, will be for the second half of 2021. We have to get used to continuing with the same measures this year, at least until the summer."



The economic crisis will reshuffle the cards

The world economy is going through a crisis unprecedented in its origin and magnitude, and this in all countries, including those least affected by the epidemic. After an initial supply crisis linked to the shutdown of factories and services due to lockdown, the shock on demand appears to be more lasting, with a sharp drop in exports, tourism, transport and hotels and restaurants in France.

The GDPs of all the countries in the world contracted by around 10% at the height of the crisis, only to rise again more or less quickly. In France, according to INSEE, after a 13.8% drop in the second quarter, GDP rebounded by 16% in the third quarter, but overall, the contraction should be between 7% and 9% in 2020. In addition to this, a major stock market crash has seen the indices fall by more than 20% over the year and the price of oil become negative.

France, like many other countries, has implemented economic support plans designed to limit corporate expenses (short-time working, lower production taxes), keep their cash flow (state-backed loans) afloat and develop their activities (recovery plan, investment support, etc.). But the race is far from won and already some economies are recovering faster than others, such as China, which seems to have beaten the epidemic and returned to an almost normal level of activity that should position it at the forefront of the global economy.

The post-pandemic economy will undoubtedly be a little less globalized and more digital, but it will first go through several years of uncertainty that will weigh on demand and investment.

"The recovery is not here yet. Business is not expected to turn around before 2023, or 2024 even."

Suppliers with very weakened finances

Shutting down business for several weeks, cancelling or postponing orders, depreciating inventories of goods, etc., have all put a strain on the cash flow of all companies and increased the risk of bankruptcy for the most fragile ones. According to Euler Hermes, corporate insolvencies worldwide will increase by 35% between now and 2021, by 25% in France and should reach a record 57% in the United States.

Here again, the situation varies greatly depending on the sectors concerned. Among those most affected are service companies such as airlines, car rental companies and hotel and restaurant groups. In industry, carmakers and even more so aircraft manufacturers fear the disappearance of a number of suppliers incapable of financially supporting the effects of

the crisis, which would weaken very complex Supply Chains.

Behind the workforce reduction plans of the major companies in the news (Airbus 5,800, Renault 4,600, Valeo 2,000, Daher 1,300, Bridgestone 900, etc.), a whole fabric of subcontractors is weakened by the decline in activity of major clients.

While in Western countries business support plans have cushioned the economic shock, these will have merely postponed the deadline without a rapid resumption of activity.

After the virus, it is to be feared that globalized and interdependent Supply Chains will have to face an outbreak of bankruptcies with even more lasting consequences.

"An explosion of bankruptcies is feared by many as early as the last quarter of 2020 (...) - in reality, the moment of truth is more likely to come in the first half of 2021 - at the crossroads of the very cash-hungry recovery and the first repayments of the State-guaranteed loans due in the spring."

Adapting to regulatory constraints

The regulatory constraints resulting from the health crisis will become even stronger with their consequences on business activity and productivity.

The implementation of strict protocols, the provision of protective equipment, the systematic disinfection of workstations, the development of working from home... are all elements that will have a lasting impact on productivity and increase costs for many companies.

Combined with a loss of customer loyalty in the retail, hospitality and transport sectors, this will add to the financial difficulties of companies already hard hit by the crisis.

In addition, the tightening of environmental regulations and taxation as a result of global

warming and the sensitivity of public opinion (ban on pesticides, outcry on diesel vehicles, local consumption, sustainability...) is forcing companies to review their industrial strategies and the architecture of their Supply Chain to adapt to these new constraints.

Finally, uncertainty about world trade is also worrying companies. Brexit remains a major unknown for European flows and the American elections are being scrutinized by all observers who are hoping for a stabilization of American positions on trade, particularly vis-à-vis China.

"We have to adapt to our customers' health protocols, which lengthens response times. The very different regulations between countries on the measures taken and the closure of borders have led to operational management difficulties."

Planning could not be more uncertain

Uncertainty about sales forecasts has become the norm in many sectors. The only certainty is that we do not really know when market demand will return to normal and how the crisis we are going through will affect consumption patterns in the medium and long term. The usual historical benchmarks have become obsolete and this is challenging Sales & Operations Planning (S&OP) processes.

W-, "U-" or "L-" shaped recovery forecasts are being undermined by contamination curves. In certain sectors such as Aeronautics, the scenarios to be considered go from one extreme to the other and prevent the correct planning of supplies, many of which have long lead times, condemning the sector to be piloted on sight and experience delays at the time of recovery.

Uncertainty is also very high in the Retail sector, as successive confinements make it almost impossible to predict what volumes will be sold and through which channel. For example, during the period post-lockdown, we saw a large number of retailers faced with surplus inventories of winter collections on their shelves. This situation is very likely to recur, generating "bullwhip" effects on many Supply Chains.

The S&OP must therefore be completely remodeled. It is no longer a question of finding the right production scenario to meet the Sales and Operations Plan, but of giving ourselves the means to quickly adapt to sudden changes in demand and unforeseen events.

"There is a lack of visibility on projected needs. Even if demand will eventually return, we do not know how to quantify it reliably, let alone anticipate possible shocks. We have a real planning problem and we're going to remain in a crisis configuration while remaining cautious."



Fewer and fewer sources

As a direct consequence of the crisis, the expected bankruptcies of many companies could durably disorganize the Supply Chain and increase the difficulties of some sectors to source their needs.

To protect themselves from such a situation, some customers are pushing their suppliers to move closer together. Among the first to be affected by the crisis, air transport and by extension the aeronautics sector are entering an accelerated phase of consolidation.

While in the short term the challenge for principals is to safeguard critical sources, the mid-term risk is that competition will become poorer in certain markets or even create monopoly situations.

The crisis has highlighted the dependence of Western countries on China (rare earths,

electronics, active ingredients...) and the need to relocate some production. While this will certainly accelerate a pre-Covid trend to relocate to countries neighboring China, it is likely that relocation to Western countries will be limited to products considered as strategic and supported by public incentive policies to compensate for the differences in profitability.

In a context where markets are closing, companies are worried that they will no longer be able to find the suppliers they need for their own products as easily as before, at least at the same price level as before the crisis, and some of them are considering internalizing part of the outsourced activity.

"We are facing a major sourcing problem as business picks up because the crisis has forced us to reduce our panel and many suppliers are going to be hit by redundancy programs."



Great pressure on logistics flows

The health crisis has put pressure on logistics flows with China since January. The world factory is a major hub through which more than €4,000 billion worth of goods transit every year and the halt in production in Hubei province coupled with travel restrictions and quarantine measures have considerably disrupted the country's logistics organization and limited its freight capacity.

All the more so as the principals reacted very quickly to try to secure their supplies by chartering numerous emergency goods shipments and rerouting their supplies. Sea and air flows were very quickly saturated, line-ups of trucks appeared at the entrances to ports and airports and delays accumulated. This led to very strong competition for transport purchases.

Some companies have gone so far as to charter entire aircraft and use alternative routes. The automotive industry, the textile and electronics sectors and trade in general have been particularly affected because of their dependence on China.

Uncertainty remains very strong for companies today with the resumption of the epidemic in Europe and new border closures or increased health measures.

In a globalized economy, and even more so in sectors that operate synchronously between all the players in the chain, logistics cannot afford severe shortages due to a lack of sufficient stocks to cushion the effects. This is what the Supply Chain is experiencing with the COVID 19 crisis.

"We had to charter complete aircraft to reduce delays and ensure continuity of service. This resulted in very significant additional costs, since the flows were saturated, and prices were sometimes multiplied by 2 or even 3."

A cyber virus outbreak?

The Supply Chain has been considerably digitized over the last decade and now relies on numerous interconnected systems between all the players to plan, produce, ship, transport, trace, invoice, and control.... All sectors combined, companies are increasingly vulnerable to the failure of their information systems or those of their partners, whether in terms of availability, integrity or confidentiality.

The massive recourse to working from home during the crisis has added a dose of complexity and increased overall exposure to Cyber risk. As an illustration of this perception, according to a Kaspersky report, only 7% of manufacturers felt that their cyber security strategy was sufficient during the health crisis.

In an increasingly connected environment, where information flows are just as strategically important as the flow of goods, the spread of a virus will be ultra-fast and will directly or indirectly impact all the players in the Supply Chain.

After WannaCry and NotPetya, which marked the year 2017, ransomware-type attacks were again numerous in France in 2019 and 2020, affecting Altran, Airbus, Essilor, Bouygues and Fleury Michon, and more recently MMA, Gefco, CMA CGM and many local authorities.

While large companies have security resources, their suppliers do not always have the means to cope.

"The subject today is not how to avoid a cyber incident, but how to protect yourself and react to an almost certain attack."

Quality defects ever critical

Quality defects on products are still very common, with between 500 and 1,000 recall campaigns referenced each year by consumer associations and the DGCCRF (General Directorate for Competition Policy, Consumer Affairs and Fraud Control). The food industry is the sector most concerned with bacterial contaminations. Then come children's products, which are closely monitored for compliance. And finally the Automotive sector. Recently the case of worm larvae found in Danone's Gallia infant's milk is emblematic of the seriousness of this risk in terms of brand image because this event was very strongly relayed by the media and social networks. To date, Danone's actions have focused primarily on strengthening packaging and controls on the distribution supply chain, a weak link in an industry where the production process is carefully scrutinized.

In the Automotive industry, there are countless examples, some of which are devastating for both the manufacturers and the suppliers involved. In July 2020, Volvo launched the largest recall in its history with 2.2 million cars for a defect in the belt system supplied by the Swedish company Autoliv, the world's leading manufacturer of airbags and seat belts. In addition to the costs and impact on the number of accidents, this preventive recall is seriously damaging its brand image.

The risk is therefore still critical, and the urgent redefinition of sourcing schemes following the health crisis coupled with violent shocks to production plans could lead to an increase in quality defects.

"Supply rate disruptions, the use of dual sources, absences linked to the epidemic... are all factors that can negatively influence quality."



Regaining **capacity** and productivity

The abrupt shutdown of activity in France sharply reduced the production capacity utilization rate from 83% at the beginning of the year to 67% in March according to INSEE. While business is gradually picking up again, manufacturers are facing various problems to be able to redeploy capacities at the same level of productivity as before the crisis.


First of all, absenteeism is a real challenge for companies. At the height of the crisis between mid-March and the end of April, absenteeism doubled compared to what it was at the beginning of the year. According to the Malakoff Humanis barometer, the virus was the cause of 26% of work stoppages in April and still affected 19% of work stoppages in June. All companies are facing employee absences, contact or positive cases, and this situation will continue with the successive waves of the epidemic.


This is all the more critical as it weighs heavily on industrial productivity, which is already declining, particularly in relation to Germany. So even if the recovery in demand will in fact lead to an increase in the capacity utilization rate, capacity utilization is likely to be less profitable in France than in other countries that have managed the health crisis better or that have a technological lead to operate their production tools in a more automated manner.


Manufacturers are therefore concerned both about the availability of their Supply Chain's production capacities in the short term, but also about its level of competitiveness in the medium term if companies no longer have the means to invest in Industry 4.0.


"The crisis will reshuffle the cards of international competitiveness in many markets. Companies that are able to invest in their productivity will have a clear competitive advantage."


Other risks


 **Strategy.** In complex Supply Chains, unforeseen changes in strategy by partners can challenge the most oiled of organizations (refocusing of activities, abandonment of certain technologies, site closures, etc.)


 **Industrial.** The risk at industrial sites, whether in the form of fire, machinery breakdown or other damage to production facilities, remains a major source of disruption that can affect an entire sector by capillarity.


 **Know-how.** Some sectors are particularly exposed to the loss of know-how (luxury, pharmaceuticals, defense...) with no choice but to support or integrate their partners or risk seeing key sources disappear without an alternative solution.


 **Technical.** By conditioning the time-to-market, the ability to sustain demand and maintain supply over time, technological choices in design are an additional risk factor.

 **Geopolitical.** The transition to a multipolar world and the multiplication of sources of instability (Hong Kong, Taiwan, Syria, Libya, Lebanon, the Sahel, Venezuela, etc.) are all risks of disruption for globalized Supply Chains.

 **Natural disaster.** The Supply Chain remains particularly exposed by events that can affect many links. In 2019, according to Munich Re, 820 natural disasters were recorded, resulting in \$150 billion in damage and business interruption.

 **CSR.** If companies seem more sensitive to their Supply Chain responsibility, they do not perceive any real danger. Excessive confidence in their policies in this area? Without presenting any risk of business interruption, the CSR performance of the Supply Chain is nevertheless a major challenge.

 **Terrorism.** Sign of an increasingly unstable world, the risk of terrorism appears in the ranking by increasing the cost of security and impacting border delays for international trade.

 **Legal.** The legal risk remains contained despite the development of Fraud throughout the Supply Chain, source of greed and temptation, and Counterfeiting beyond the traditional sectors of luxury and fashion (spare parts, medicines...).

04

RISK MANAGEMENT

Many Supply Chain Risk Management systems exist and are deployed in companies, enabling them to cope with the hazards of their Supply Chain, even at the height of crises such as the one we are currently going through.

But these systems have their limits and are only partially applied in practice, due to a lack of resources and/or because of their complexity of implementation.

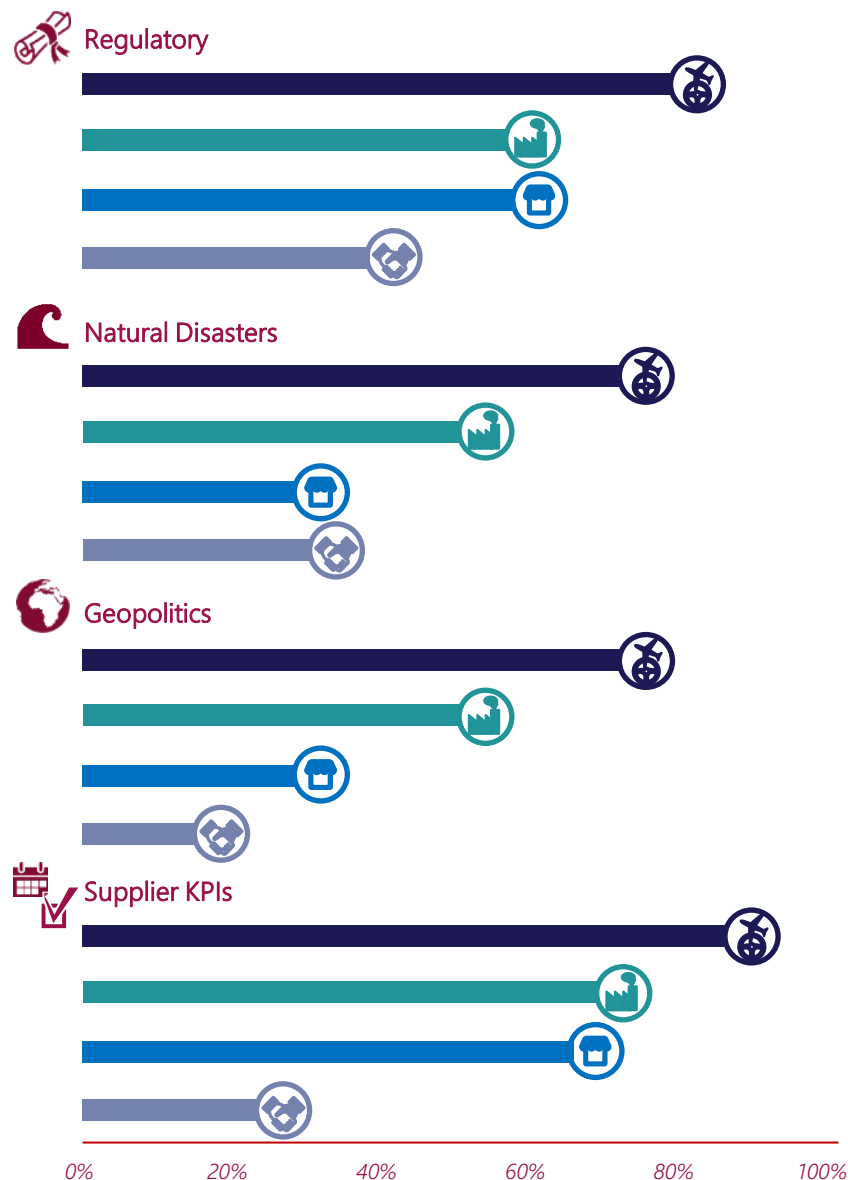
The crisis has revealed their weaknesses and highlighted the need to strengthen some of them, or even create new ones.



70%

of respondents have their own Supply Chain risk assessment

Set up a monitoring system



Monitoring is an essential tool for anticipating Supply Chain crises, but some sectors are still to have invested in systems that allow them to be alerted in time.

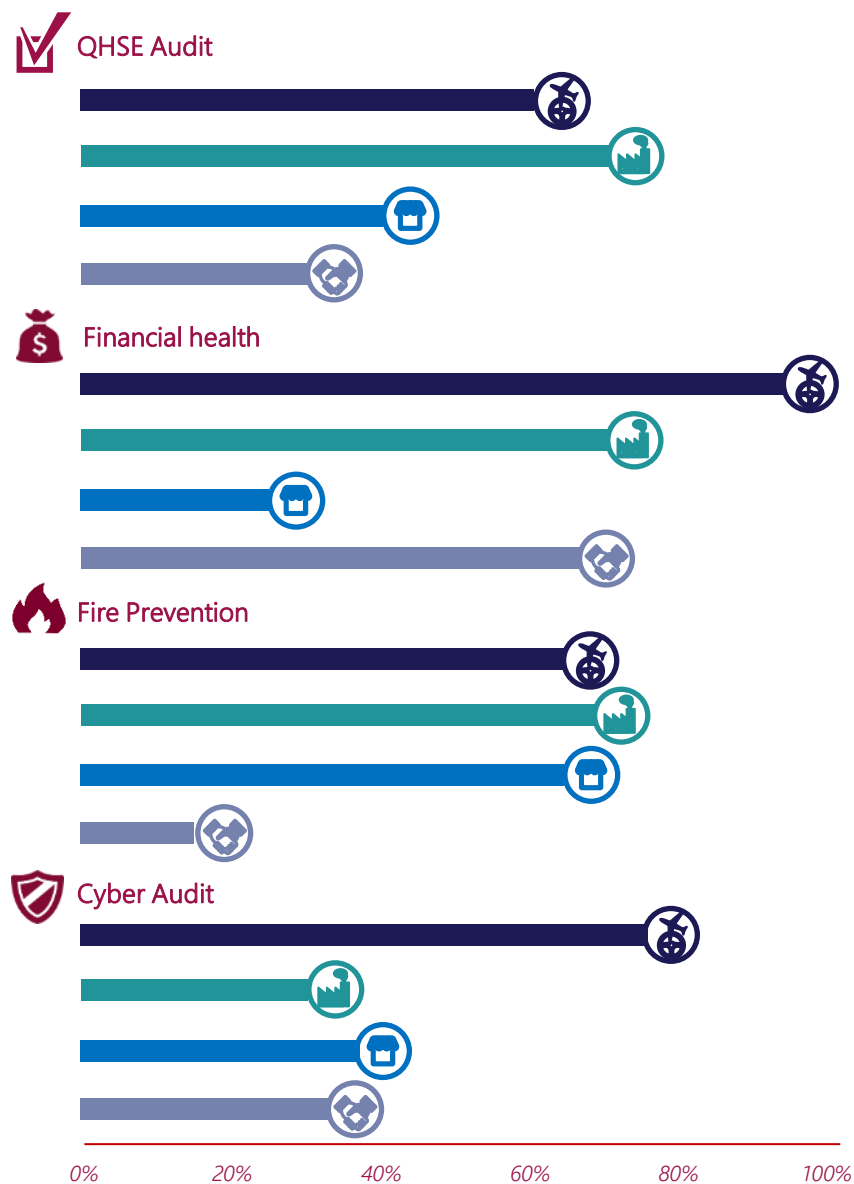
Globally, the Industrial sector is at the forefront, which is understandable due to the nature of its highly regulated activities and its globalized Supply Chain, vulnerable to climatic disasters and geopolitical upheavals.

Retailers seem to be less concerned about climatic or geopolitical phenomena, which is surprising because their supplies depend largely on areas of the world that are likely to be affected by these problems.

Finally, the Services sector appears much less structured to monitor its Supply Chain. Even if this can be explained by the co-location of supply sources and operating centers, it seems that service companies are lagging behind in terms of the maturity of the tools enabling them to perceive the rapid changes in their environment.



Evaluate your suppliers



Knowing the risk management capacity of your suppliers means evaluating them regularly and managing improvement plans if necessary.

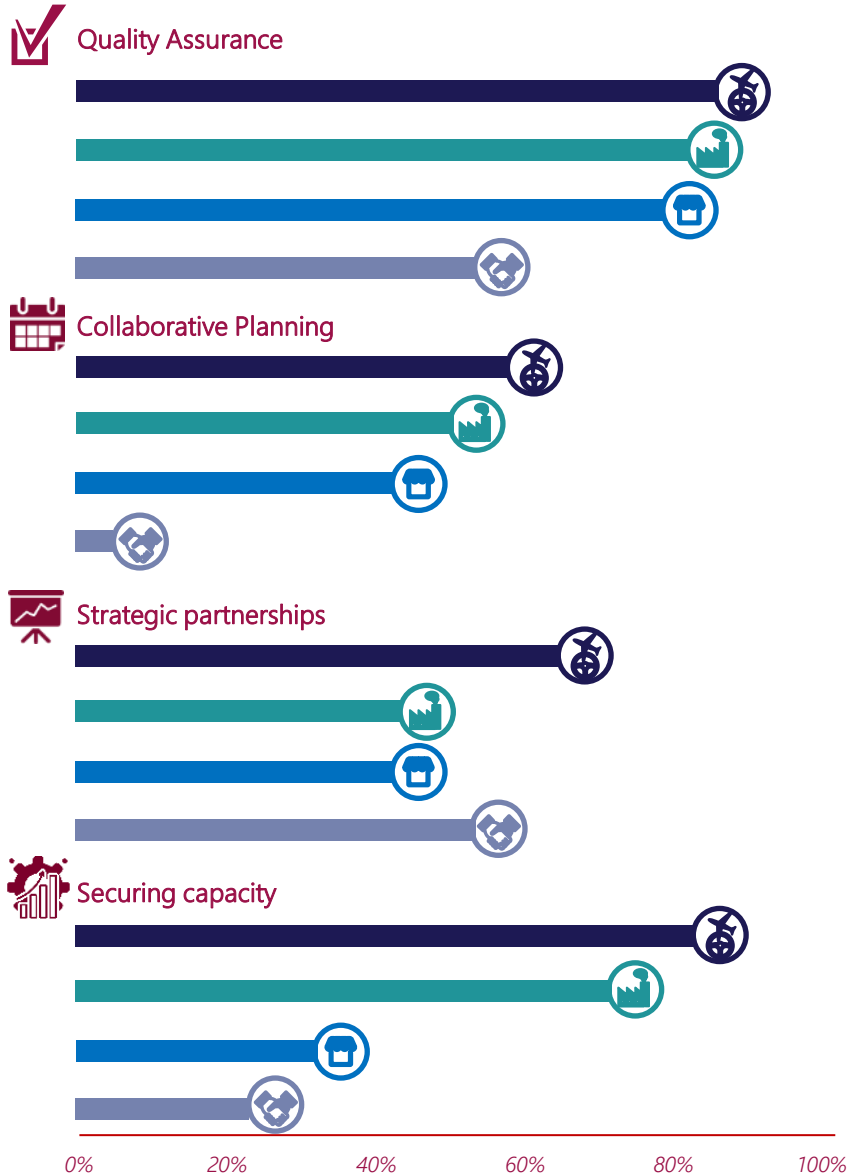
This approach is well integrated in industry, which conducts audits and collects information to guide its suppliers so that they can gradually implement the necessary preventive measures.

Even if there has been a slight increase in the deployment of QHSE audits by firms in the Retail sector, they are still not all equipped to deal with the wave of bankruptcies on the horizon and will have to assess the damage.

On the Services side, this sector is still poorly structured to conduct supplier assessments, whether on their QHSE compliance or fire prevention. While in many cases service providers must comply with existing regulations, without real controls, the risks are significant.

Finally, a real change compared with 2019, the Aeronautics and Automotive industries are performing Cyber audits on their suppliers and seem to be more wary of the need to at least question prevention and protection systems.

Prevent failures



The Supply Chain is constantly adjusting to the markets it serves. To continuously control this complexity, prevention systems need to be integrated into the steering processes.

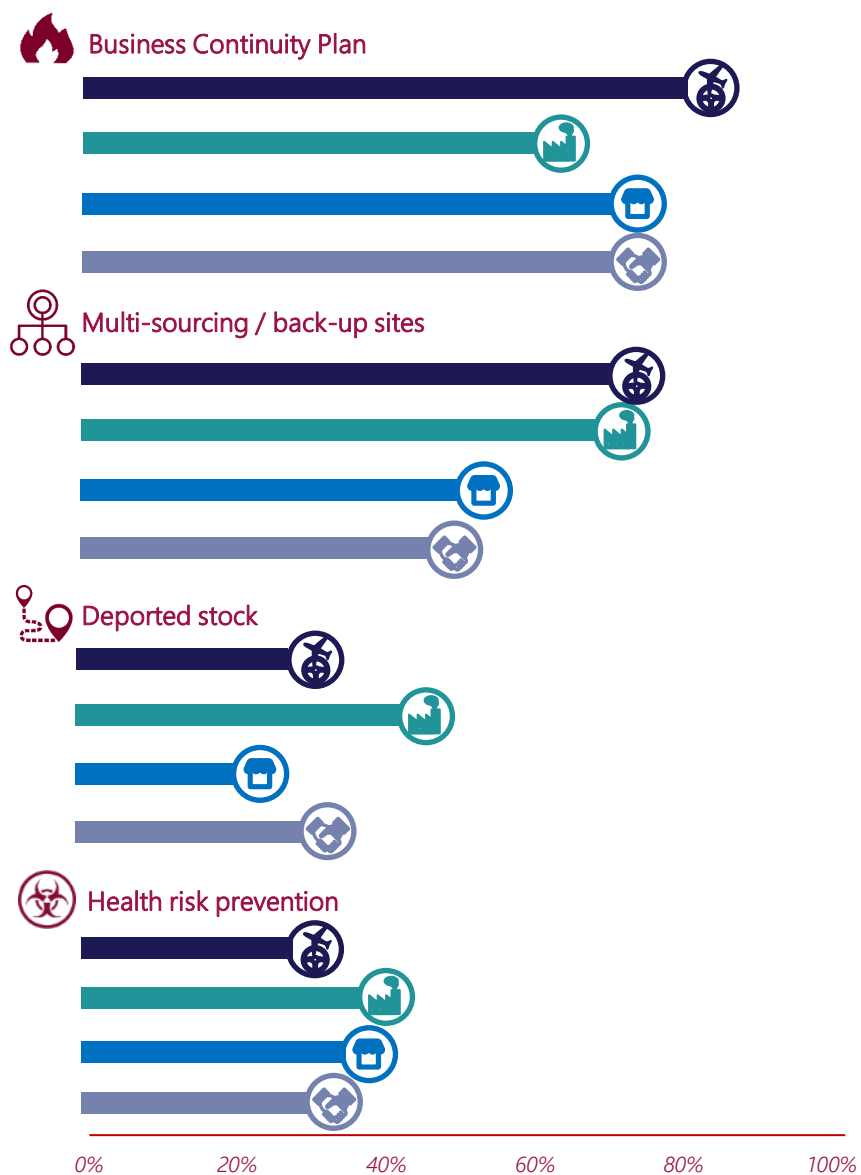
Here again, Industry is an example to follow, its just-in-time operations permitting zero defects and its need for innovation imposing long term relationships. Nevertheless, there is a difference in maturity between industries in terms of purchasing strategy, no doubt linked to the position of the respondents' principals or suppliers.

Trade and Retail rely on quality certifications that are supposed to ensure product conformity, but given the product recalls, this has its limits. The sector is reluctant to commit to volumes and is unable to secure capacity, which sometimes leads to shortages.

Finally, the Services sector is still very exposed to fluctuations in demand and lacks the means to integrate its Supply Chain into its planning processes and thus offer visibility to its subcontractors.



Secure flows



Beyond risk prevention, the company must be able to react very quickly to an event that threatens its Supply Chain in order to limit its impact.

All sectors implement Business Continuity Plans (BCP) and their deployment is ongoing. Nevertheless, it is very rare that they are coordinated with all the actors of the Supply Chain or regularly updated.

Multi-sourcing, another mechanism that seems to be very widespread, allows to switch from one supplier to another if necessary. Here again, this strategy often suffers from a lack of practice, qualification and backup capacity to be fully operational.

A more secure system, the setting up of a deported inventory, allowing to react to an event affecting an entire geographical area, is not widely deployed because its cost is often considered too high in relation to the stakes.

Finally, as proof of the unpreparedness of companies to the health risk, before the crisis, ad hoc prevention systems were not widely deployed in the various sectors, with the most advanced only having plans dating back to H1N1.



The crisis has revealed system weaknesses



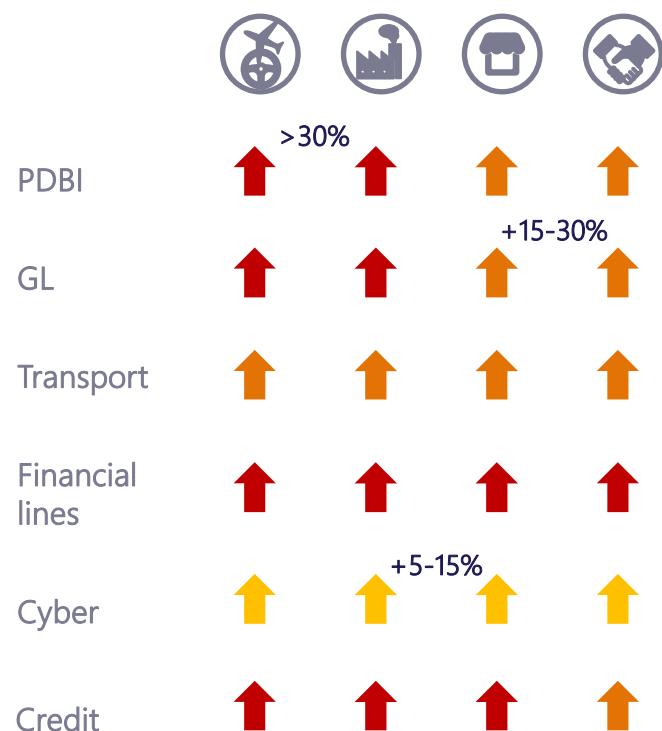
The COVID crisis has been an opportunity for companies to mobilize their continuity systems, which they consider for the most part effective and useful. Nevertheless, this unprecedented emergency situation has highlighted difficulties in leveraging a number of them:

- The supplier financial assessment has proven to be of little use because it does not provide a real-time view when many are in a delicate situation.
- Strategic partnerships are being challenged by the extent of the drop in demand, which is prompting clients to tighten their panel to protect costs.
- The small quantity of stocks transferred was not enough to compensate for plant closures and the congestion of logistic flows.
- The lack of traceability of the products along the supply chain did not allow companies to reroute logistic flows in time and some components were blocked for several weeks.

"The control systems were appropriate for a logistic crisis, but not for a health crisis"

Insurance, an increasingly limited solution

Insurance premiums
Increases noted in Q3 2020



Source : brokers, FFA, AMRAE

Among the instruments available to companies, insurance provides solutions to cover operating losses resulting from damage occurring on a customer or supplier site (fire, flood, machine breakage, etc.), with less or no coverage for operating losses without direct damage (strike at a customer site, bankruptcy of a supplier, earthquake destroying transport infrastructure, cyber attack at a service provider, quarantine of a town following an epidemic, etc.).

After years of decline, the increase in the cost of natural disasters and several contingent business interruption claims in the automotive and chemical industries, which have highlighted the systemic nature of Supply Chain risk and the risk of accumulation for insurers, have contributed to the hardening of market conditions over the last two years (increase in premiums, higher deductibles, reduction in capacity, limitation of the scope of coverage).

The health crisis, by further deteriorating the results of insurers whose policies did not exclude the risk of epidemics and their consequences on business operations, only reinforced the trend making negotiations on renewals particularly difficult.

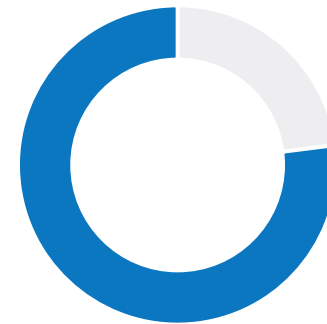
For companies, the situation is such that it is no longer a question of imagining how to better insure their Supply Chain risk, but rather of finding a way to insure themselves without undermining the existing technical and economic conditions.

05

AND TOMORROW'S SUPPLY CHAIN?

While the global economy will eventually recover from the health crisis, it will no longer be able to ignore its vulnerability to Supply Chain risks.

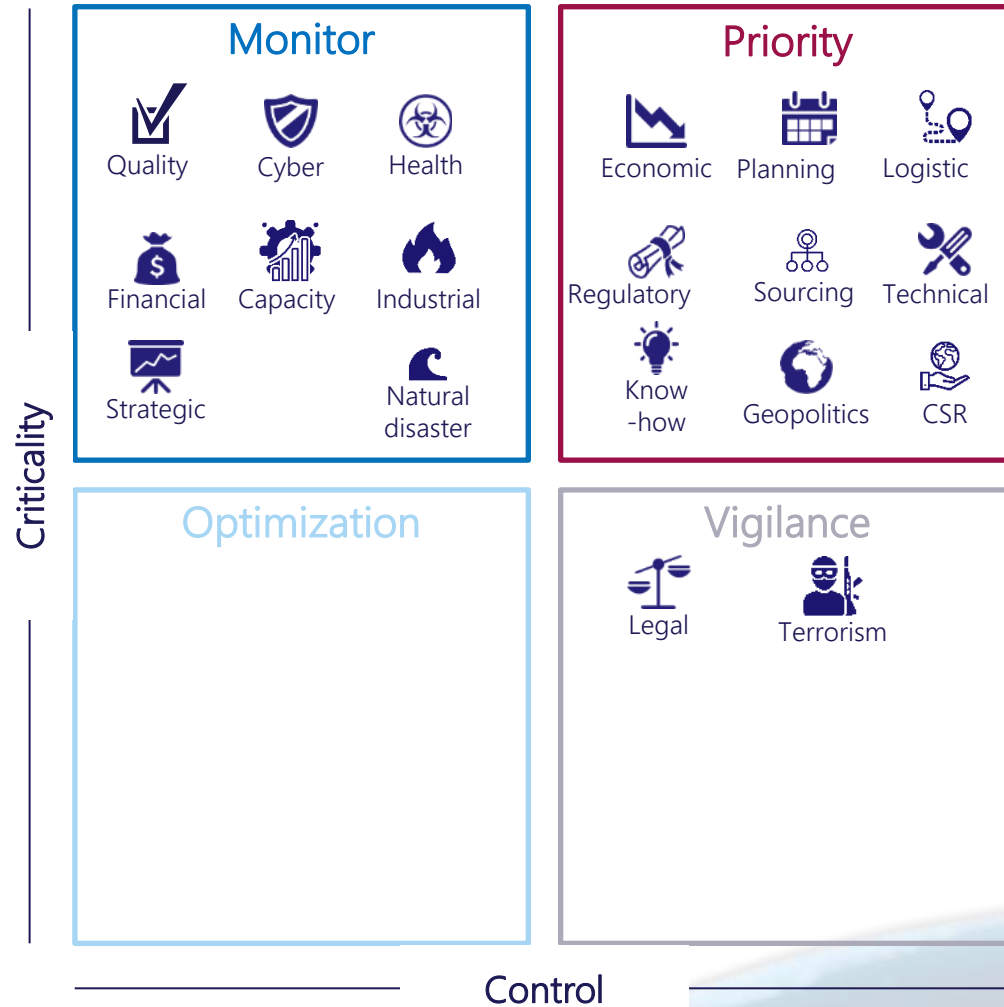
There are several possibilities for companies to secure their supply and distribution channels, and they will have to find the right compromise between relocating operations closer to their markets and putting globalized flows under end-to-end control.



77%

of respondents want to change the
profile of their Supply Chain within the
next **5 years**

Priority to **securing** flows



The business environment has become very uncertain and the priority is to secure flows to meet the short and long term challenges.

At the Operations level, in the short term, logistics will need to **gain in flexibility and visibility** in order to be more easily operable and modifiable in the event of a crisis. In the same way, the planning and more specifically the S&OP processes will have to be reviewed to enable **continuous adaptation to demand** throughout the chain.

From a structural point of view, in the face of the **economic crisis** that is looming, the **geopolitical and regulatory constraints** that weigh on world trade and the changes in mentalities and consumer habits that are becoming **more responsible**, companies must adapt their **sourcing** to supply themselves in all situations while remaining compliant.

In order to successfully complete this transformation of their Supply Chain, customers will need to support their ecosystem to **develop know-how** as close as possible to their markets, so that they have **multiple sources** but also the capacity to **diversify their offer**.

Leveraging digital

Map and assess the risks of their Supply Chain – *42% of respondents*

Mastering the Supply Chain means first of all knowing it in detail. This involves identifying, localizing and characterizing all the links in order to have visibility to guide the strategy and respond effectively in case of failure. What is the precise geographical location of the sites in terms of their exposure to natural disasters? What are the processes that are operated there and what is the associated level of fire prevention? What parts are produced there and what is the impact of a failure on turnover? ...

This requires real leadership and coordination, a process and dedicated tools involving Supply Chain, Purchasing and Risk managers. Everyone must work together to build and update this mapping, which is essential for improving the company's overall resilience..

Operate flows in real time – *26% of respondents*

In addition to this detailed mapping of the Supply Chain, the company must have the levers to control the logistic flows of its goods in almost real time, both upstream and downstream. The objective is, in the event of a problem, to be able to very quickly identify the impacts, project alternatives, locate the goods, check their origin, their conformity in order to implement new logistic flows or launch new productions if the situation so requires.

The technical solutions are known (RFID, GPS, Blockchain...) but not yet sufficiently deployed and the logisticians are preparing to be able to propose the necessary infrastructures for the processing and distribution of this information throughout the chain to operate omnichannel flows in B2B.



Rethinking the Supply Chain

Diversify supply pools— *45% of respondents*

While relocation has been highlighted since the beginning of the crisis, it is undoubtedly more pragmatic to tend towards a diversification of supply pools. Indeed, it is no longer acceptable for a company to depend on a single geographical area in the event of a natural disaster, health crisis or geopolitical event. This will require qualifying new suppliers, ideally closer to customer markets. This shift will take time, but it seems essential and is in line with the CSR challenges of companies.

Secure productions – *35% of respondents*

The economic crisis will put many companies in difficulty and they will have to adapt to a drop in demand while securing their supply chain. Many of them will choose to reduce their panel, which means strengthening long-term partnerships with the remaining suppliers. Others will go as far as to internalize production on components or critical stages for which the supplier market is too small or located in areas that are too exposed.

Implement alternative logistic flows – *18% of respondents*

The crisis has also revealed the great vulnerability of global logistics. Many companies have already embarked on a major and sustainable shift in their transportation policy by choosing to diversify their solutions. Although current supply is limited and concentrated on sea and road routes, investment policies are moving toward a greater diversity of channels. Companies need this to be able to secure and improve their level of service by constantly adapting their supply and distribution methods.



Strengthening business continuity

Reinforce and extend BCP – *48% of respondents*

The crisis has severely tested business continuity systems. Between those who had Business Continuity Plans (BCPs) and those who had to build the approach as they went along, there may have been significant differences in impact. Too often BCPs were designed to manage localized, medium-intensity incidents and not simultaneous failures on all or part of the company's and its partners' sites. Improving resilience requires the implementation of a real continuity management system at the Supply Chain level. The objective must be to enable coordinated crisis management at the level of the company and all of its resources, as well as with its customer partners and Suppliers, by connecting all the players to provide early warning, enable the best trade-offs to be made, limit the impact and accelerate the return to normal. This requires increased and transparent cooperation between all Supply Chain stakeholders.

Increase stocks – *34% of respondents*

After years of inventory reduction policies, every crisis, big or small, reminds us that stocks are intended to act as a shock absorber and that for the most complex Supply Chains, where the interdependence between the players is difficult to model, they make it possible to compensate at least partially for the unpredictability of future failures and to buy some time to react. While it is not a question of recreating stocks at all stages of the processes, which would be difficult to sustain economically, the idea is to rethink management policies in the light of the criticality of the materials, parts or components purchased or finished products manufactured, in order to improve the resilience of organizations (setting safety stock levels, negotiating consignment stocks with suppliers, setting up remote stocks to avoid cumulative effects in the event of a site being destroyed, etc.).



Restructuring financial protection

In a market that imposes double-digit premium hikes, increases in deductibles, reductions in capacity and coverage, and which stopped developing truly new products long ago, the insurance industry confirms that it is not the Alpha and Omega of corporate P&L and balance sheet protection.

The contraction of insurers' capacities is both an additional risk in case of domino effect failures on the Supply Chain and an opportunity for companies to reappropriate their insurance policy, rethink their retention model and give themselves the means to be less dependent on the volatility of the financial markets.

In all cases, it is becoming imperative to strengthen risk management (identification, valuation, prevention, protection and business continuity), in order to size coverage needs as accurately as possible (guarantees, limits, deductibles) and limit the deterioration of the policies' technical and economic conditions.

For medium and large-sized companies, this is an opportunity to explore the possibility of setting up ART (Alternative Risk Transfer) solutions of the captive type (insurance, reinsurance or captive compartment in an existing vehicle) or Structured Guarantees. This could enable the company to complement the guarantees offered by insurers (e.g. non-damage Business Interruption), to facilitate the participation of other insurers by self-insuring its frequency risk and by transferring only the intensity risk, while optimizing its insurance budget. Eventually, in a less tense market, the gain obtained in risk visibility will make it possible to reconsider the transfer to insurers in a much more favorable position.



A blessing in disguise

While we never progress as well as we do in reaction to a dramatic event, the Coronavirus crisis should make companies more aware of the limits of current Supply Chain models and their ability to control risks. Economic optimization of the Supply Chain has largely contributed to the growth and performance of organizations, but it has also weakened the chain beyond reasonable limits and exposed it to too many risks.

Given this situation, a company can no longer afford not to:

- Have **visibility on its Supply Chain** with an assessment of risk exposure and an estimate of the impact of a failure in order to prevent the occurrence of crises
- Structure its Supply Chain in order to have **alternatives when faced with a lack** of production in a given production area.
- Lead a **continuity management system** in collaboration with its suppliers and customers so that it is truly operational in the face of an international crisis

For companies that know how to seize this opportunity, it is a chance to truly regain control over their business by embarking on a sustainable goal of resilience and performance, taking into account the growing uncertainty and the call for greater social and environmental responsibility that the global economy is now facing.

KYU, the Supply Chain Risk specialists



Map your Supply Chain Risks

- Localization and characterization of the risks of your supplier and customer sites
- Mapping of interdependencies and assessment of prevention levels

Reduce the risks of your supplier panel

- Adapting your purchasing strategies and processes to your risk exposure
- Conducting audits of critical suppliers and defining action plans

Increase the resilience of your industrial set-up

- Stress testing production and distribution flows according to demand scenarios
- Defining and implementing a more resilient organization

Deploying a continuity management system

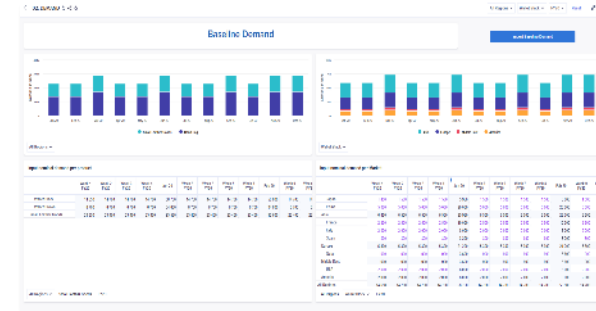
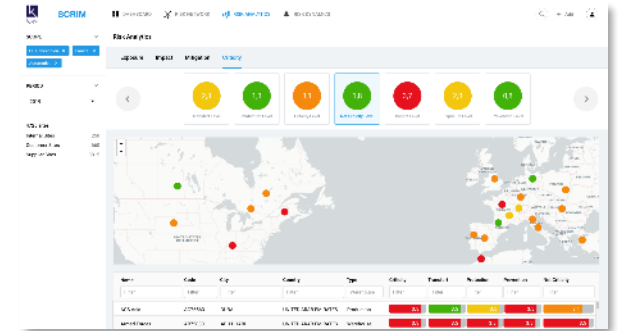
- Simulating the activity impacts of a business interruption
- Establishing BCPs extended to suppliers and customers

Adapting your Insurance solutions

- Revising your warranty conditions and limits in light of your actual exposure
- Steering the implementation of an insurance coverage of the Supply Chain

Digital solutions to manage the resilience of your Supply Chain

SCRIM, a collaborative platform for Supply Chain risk mapping and business impact assessment



Advanced S&OP solutions for simulating risk scenarios and optimizing the Supply Chain

Contact us

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