

Knowing your supply chain is crucial for prolonged success

Investment in its mapping is not an extravagance

Supply chain resilience has become crucial in today's dynamic business landscape. Companies must navigate through the complexities of global markets, unforeseen disruptions, and rapid technological advancements. In this era marked by unprecedented global challenges, businesses are compelled to re-evaluate and fortify their supply chain strategies to ensure resilience and agility.

But not all companies take this as seriously as they should, and therefore Belrim organized the "Big Data and Supply Chain Resilience" day in the Brussels offices of the leading industry insurer AIG on the 20th of February. It brought together two industry experts, **Peter-Alexander Gijbels** of DP Surveys and the global head of marine and risk consulting at AIG, **Jan Rietveld** along with forty-something risk managers to explore the intersection of big data analytics and supply chain resilience. Both speakers delved into the transformative role of big data in optimizing supply chain operations, mitigating risks, and enhancing overall resilience. Both provided insights into innovative technologies, advanced analytics, and real-world case studies showcasing successful implementations at the intersection of big data and supply chain management. But at the same time they put their finger on several risks, notably the underinvestment of a lot of companies in the mapping of their supply chain and that even after covid and the sudden disruption after the Evergreen accident in the Suez canal!

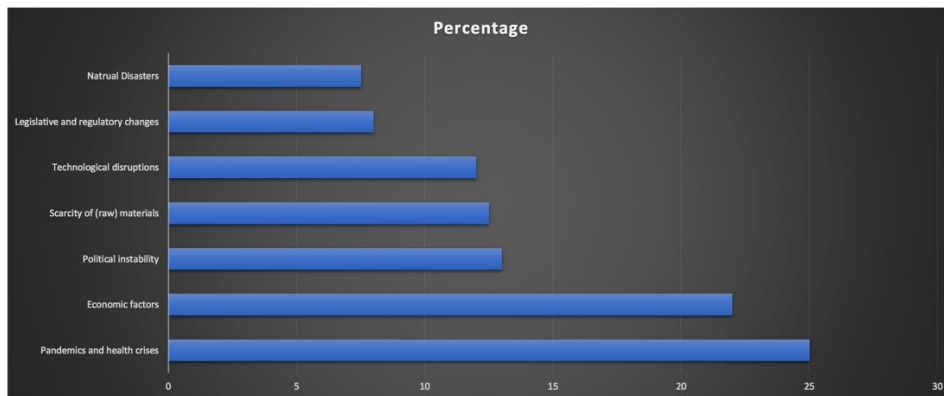
Peter-Alexander Gijbels: more understanding of the supply chain is needed



The first guest at the event was **Peter-Alexander Gijbels**, P&C Director of [DP Surveys](#). He shed light on supply chain disruption and some key dangers. He started off by saying that supply chain is not just transportation although some people still believe it is. 'Supply chain starts from the raw material and ends when the product gets to the market. That's the full supply chain. No wonder that in big companies the supply chain managers are the most responsible people within the organization.'

The focus on supply chain risks have certainly evolved over the years. 'Before the pandemic and health crisis there was no issue. People only talked about natural disasters like earthquakes but that's less than 5% of disruptions.' In the P&C world 75% of claims are linked to product liability and within this liability 75% is associated with the supply chain, and 50% is linked to Management of Change. For Gijbels the main disruptions are pandemics, economic factors and political instability. He urged attendees to explore the dynamic [WEF report on global risks and supply chain disruptions](#) to learn more about the topic and gave an example about political instability is also next door after he read a newspaper article wherein the CEO of the Port of Rotterdam is complaining about the political stalemate in the Netherlands and how it negatively affects the business climate around the port.

WEF



Peter-Alexander Gijbels also put supply chain problems around products into practice with a fictitious case study of an Italian coffee machine maker. He shared a scenario of cost-cutting measures, by changing so called too expensive components by cheaper ones from the Chinese online store Alibaba. 'The challenges in setting quality standards and the prevalence of recalls should not be neglected. China has by far the most ISO 9001 Certificates but also has the most recalls of products. The CE-label doesn't stand for Chinese Exports,' Gijbels stated jokingly. 'It happens quite frequently that the first batch of products is top quality but the bigger follow-on order is not good. Then the products will be send back and the factory has to be closed giving the lack of products.' Another aspect of doing business in China is contracts and he advises on bilingual contracts for dealing with Chinese companies due to language barriers. 'The importance of clear and dual-language contracts for effective communication should not be underestimated.' And for Peter-Alexander Gijbels the transport from China to Europe poses also a lot of risks. 'Due to problems around Yemen the transport takes 12 to 14 weeks instead of 6 weeks.'

What the P&C Director of DP Surveys also sees on a daily basis is the lack of contract awareness among R&D teams and procurement managers. 'Recently there was a client who imported knee implants in the US market and got the parts via another supplier. He was unaware of the high risk and big exposure he was facing if something would be wrong with those implants. And the fact that the sales representative told me that the client promised not to sue if they were problems, was hallucinating.' It is therefore important of understanding risks associated with small business transactions. And Gijbels also mentioned the dangers of single source suppliers. 'The importance of business continuity planning for single source suppliers should not be underestimated. I can't highlight enough the need for backups and potential risks in case of supplier issues.'

The prevalence of companies lacking awareness of their supply chain organization and supplier performance is astonishing to Gijbels. 'I still see a lot of companies who have no idea how their supply chain is organized. And they also have no clue how they work with suppliers: even after a lot of incidents and rejects they're still considered as the best of their suppliers. And if they are your single source suppliers, then you have a big issue.' For the P&C Director of DP Surveys a part of the solutions lays in data. 'I encourage companies to utilize data for analyzing supply chain performance and identifying areas for improvement.'

There are a lot of systems on the market and he introduced [Solventure](#) as a company offering in-depth supply chain studies to enhance accuracy, agility, and cleanliness of systems.

Jan Rietveld: minimising logistical risks is possible

AIG-veteran, Jan Rietberg, was up next during the "Big Data and Supply Chain Resilience" day. He has extensive seagoing experience as a ship officer, a marine cargo consultant as well as port captain and marine cargo surveyor. Today he leads a team of 14 people within the global marine risk consulting team under the mission of providing value by understanding the marine industry's current and evolving risk challenges and developing solutions collaboratively. His presentation was built around four major blocks which you can see below and he focused, giving his background, a lot on the transportation side of things. Based on his experience, he gave concrete tips directly to risk managers.

The Global Supply Chain	What's Changed?
Finding Hidden Risk	How to Find the Risks Unique to Your Own Supply Chain
What to Do About It	Mitigating Strategies that Leverage Data and Emerging Technology
Marine Risk Consulting	When and How to Leverage Insurance Carrier Risk Consulting Services



He immediately stressed that you need to map your supply chain, either your producer or your service provider. 'You need to identify the risks and when you start working on this, you need to write it down and ask yourself what you are looking for.' Rietberg identified risk as the possibility of an event, a circumstance, or the action occurring that could have negative consequences or impact on objectives, assets, or achievement of desired outcomes. 'Basically map any risk that could hit the profitability of your business: and you can do this through risk assessment. An example is when you're moving products, from A to Z and they need to be stored in a warehouse somewhere in between. Then do a warehouse risk assessment. Have a look at it, so you really can mitigate the risk.' Once the mapping and the writing it down has been done, there's a residual risk that can be calculated. 'Make sure that you know what is going on. Analyze the risks, know where they are and you will reduce the uncertainties: risks are identifiable.'

→ Effective supply chain management results in lower costs and a faster production cycle. If you know where your risks are and you know what you're doing from A to Z, then you can be very effective as a risk manager.

Risk = likelihood x impact

Risks are identifiable – Uncertainties are unknown

The deeper the dive in risk analysis, the fewer number of uncertainties



Jan Rietberg repeated what Peter-Alexander mentioned earlier that the pandemic was by far the biggest disruptor in the world. But natural catastrophes have been big issues the years before like the Tohoku earthquake that hit Japan significantly and was a disaster for the the nuclear power plant at Fukushima. 'The plant was resistant against tsunamis and earthquakes, but apparently it wasn't constructed to get both at the same time: that's the uncertainty part. And then all those hurricanes in the U.S. like Hurricane Katrina in 2005.' Costly global natural catastrophes are not new to supply chain.' And they're also manmade disasters, like the accident with the vessel Ever Given in the Suez Canal. 'This was really a manmade disaster and it blocked the canal for more than a week and the Suez Canal authorities lost 1 billion dollars of income. This was caused by the shallow water effect and I myself experienced it once in Stettin, Poland. But anyway, the whole global supply chain was affected and lot of vessels had to go down south around the Cape of Good Hope. And once products aren't available there getting more expensive.'

Before COVID-19 supply Chain used to be focused on just-in-time, quality and cost. 'The logistics supply chain managers and procurement managers, they were really turning the buttons. They calculated in Western Europe that to supply the customers they only needed a limited amount of stock with a tight transport schedule. But now this has changed. And the geopolitical uncertainty, the too high dependency on containerized shipments and extreme weather has added insult to injury.' So Rietberg is seeing more nearshoring and friendly shoring. 'It basically means building warehouses right around the corner and having more stock and eventually building more here. It comes down to making sure that customers can be supplied. Friendly shoring is more geopolitical and making sure that the products are stored in country that is your ally for now and into the future. In that respect China has become a bit more difficult.' On the other hand he also talked about extreme weather conditions that we around us like floods or low river levels like on the Rhine and the Panama Canal.

- Geopolitical Uncertainty
 - Conflict in the Ukraine, re-routes and shipping contracts in the North Sea
 - Israel-Hamas war, attacks in the Red Sea
 - Dependency on containerized shipments

- Extreme Weather
 - Limitations to canals
 - Additional risks using re-routes

→ Identify geopolitical and climate risk for your company. Ask yourself how these risks could affect you.

Jan Rietberg went on to talk about the critical importance of supply chain resilience in today's dynamic business environment, highlighted by increased interest in the topic as evidenced by Google Trends. 'Businesses are realizing that they need to understand and manage risks associated with factors such as COVID-19 but also with their reliance on single-source suppliers. We all have those in our logistics supply chain: you need to have a plan A and as well as a plan B, but make sure that you know what you're doing. And knowing your supply chain is an important step in the process.'

He mentioned that in a survey with global supply chain experts, only 50% appear to know who they're first tier suppliers are. 'Supply chain experts in half of the time don't know what the procurement managers are doing and where they are buying. For me these are.' And Rietberg added that global supply chain resilience is a relatively new topic for all of us while already for centuries we have been working on it.' And even more shocking to Rietveld is that only 2% know the location of third tier suppliers!

Most disruptions originate in the deeper supply chain tiers.

All of this underscores the necessity of mapping out the entire supply chain. This helps identify vulnerabilities, such as limited knowledge of first-tier and third-tier suppliers. The example of disruptions like the Ever Given incident in the Suez Canal illustrates the potential consequences of overlooking supply chain complexities.

'The first thing you have to do when you start mapping your whole global supply chain, is to ask yourself what you really want to do? Write it down. Then identify the risks and put them into categories that you want to analyze. Important to note is that you can't do it yourself because you're not a specialist on all these topics. You need to get people on board. And the most important person that you need to get on board when you are analyzing your supply chain, is your CEO. He/She has to sign off on it that you're doing the analysis because it costs money. And if you have a clever CEO, he/she will do it.'

→ Mapping your company's supply chain can help identify vulnerabilities like single source suppliers and unique raw materials. Yeah. Be aware of those.

→ Help yourself with data analytics to keep an eye on your clients (what are they doing?) and your distributors (are they still happy to distribute your products?). Know what they're doing. Are they still doing tomorrow what they're doing today?

Recent Transport Threats, Increasing Costs to the Supply Chain

Re-routing | Extensive waiting | Inability to get raw materials | Lost product

- Choke Points → "narrow parts of main trade lanes", usually "straits or canals"
- GeoPolitical Situations → War and Political Disruptions
- Piracy
- Cyber Attacks
- COVID (still!)
- Extreme Weather

Knowing your company's supply chain geographically can also help identify shipping route vulnerabilities.

In the second part of his presentation Jan Rietberg talked about the global shipping supply chain, his bread and butter. First of all he gave some numbers. '80% to 90% of all goods are being shipped overseas. The other 10 to 20% via rail or air and absolutely 100% is being trucked. Either from manufacturer to the port and from discharge to the receivers. 30% of the trade is coming from Asia over here via the main route which is almost closed down now. And all container shipping lines are taking the southern route now. And the Suez Canal is a global trade choke point right now. But the Strait of Malacca as well and then there are some regional choke points like the Bering Strait and Northern Sea Route that currently is not in use except to the Russians. Prior to the conflict, we have been using it because it saves two weeks sailing.' War and political disruptions are a worry for supply chains, just like piracy. 'The China Sea could become a military choke point, just like the Strait of Hormuz where the majority of our oil is coming through. Iran can block the Strait of Hormuz whenever they like. And in the Indian Ocean piracy is on the rise again, just like in Latin America where smaller vessels like yachts are attacked but this doesn't directly hit the supply chain globally.

Extreme weather is also becoming worrisome. 'Currently the Panama Canal is suffering from drought. Normally 38 to 40 vessels pass per day but it already went down to 14 at a certain moment and this has a big impact on the commodity trade like LNG carriers. The Panama Canal authorities recently even put the front seat in the queue on auction and a Japanese LNG carrier paid 4 million USD which is enormous.

International Trade, Distribution Routes – Choke Points



○ Global choke point ○ Regional choke point ○ Security choke point

Jan Rietberg ended this presentation by giving five recommendations to help minimize logistics risk (see below).

Five Recommendations to Help Minimize Logistics Risk

Managing Your Supply Chain Through Uncertainty

Avoid/Terminate the Risk | Accept the Risk | Mitigate the Risk

Specifically, Logistics/Transit Risk Mitigation:

1. **Visibility** – Map Your Supply Chain, Keep it Current
2. **Tracking** – Implement Continuous Monitoring & Tracking for Route Deviations
3. **Routes** – Keep Current with Alternate Route Options, especially when transporting through areas of unrest or areas known for extreme weather
4. **Plan** – Create a Contingency Plan for Unique and Single Source Suppliers, Create Redundancy Where Possible
5. **Customer Demand** - Use technology and data to anticipate customer buying patterns e.g. get ahead of the storm with your shipments to ensure local warehouse space and products are on the shelf

‘To minimize your supply chain risk you have to avoid and terminate the risk. That's the easiest one. If you can do that, avoid it and terminate it. So that's one: having it identified and taking it out. Or accept the risk and know where it is. Document it, put a number to it and tell your CEO, you know, you may go bust. But accept it. Also make your risks visible and map your supply chain. Track it and implement continuous monitoring of the routes that you're doing. You really need people to keep monitoring this and create contingency plan especially around single source suppliers. If you have a single source supplier, make sure that you know where another supplier is. Can this other increase their production to supply you if you approach them later on and if your main supplier goes bust or goes out? And use data, technology to anticipate. Make sure that, you know, what they buy today, are they still buying that tomorrow?’

To top it all off Jan Rieberg showed a slide of what he and his team at Marine Risk Consulting (MRC) are doing. ‘We consider ourselves as consultants, we do risk assessment and we have an independent position although we work for AIG. We do consultancy and are called upon for the operational knowledge that we have. We do loss control programs and identify the whole logistic chain. Basically, we can see where the weak spots are like warehouses that are really vital for your operation. We can do warehouse risk assessment and make recommendations and see where we can correct. We see ourselves as a communicator and overseer. We do speak the language of the captains and the stevedores and can translate that back into insurance.’

Marine Risk Consulting (MRC) A Partner in the Risk Management Process

