

Felix Theisinger
Shengyi Yan
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Post Covid-19 Supply Chain Management

Management Summary: Covid-19 revealed the need for action to transform supply chains towards transparency, resilience, agility and automation.

More than any stress test, Covid-19 has uncovered major deficiencies and weaknesses in today's supply chains.

The lessons learnt from Covid-19 and the call for action on supply chains vary considerably between Industries and enterprises.

Some supply chains have already shown remarkable resilience to the shocks of the Covid-19 pandemic.

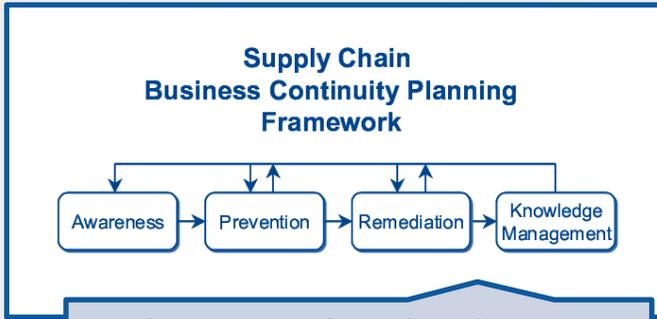
The question is, what to prepare for next? Supply chains cannot be designed for every highly unlikely black swan event.

But no doubt, volatility and uncertainty will increase. Hence, supply chains have to become more transparent, resilient, agile and automated.

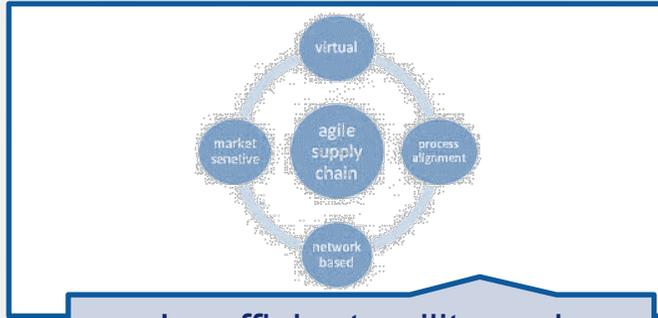
Detecon pushes ahead your post-Covid-19 Supply Chain Transformation and Digitalization toward transparency, resilience, agility and automation.

Our clients benefit from our project experience and digital supply chain expertise as well as latest Covid-19 restart insights from China.

More than any stress test, Covid-19 has uncovered major deficiencies and weaknesses in today's supply chains – as illustrated by examples (1 of 2):



Inappropriate business continuity and supply chain contingency plans



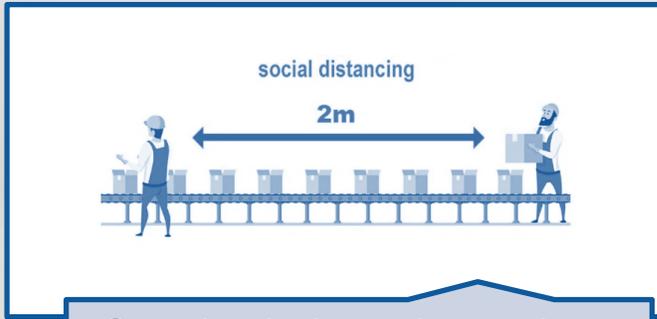
Insufficient agility and flexibility as to sudden slumps or peaks in demand



Production and supply chain not prepared for a sudden stop and smooth restart



Supply chain risk mgmt. overwhelmed by events going beyond minor risks

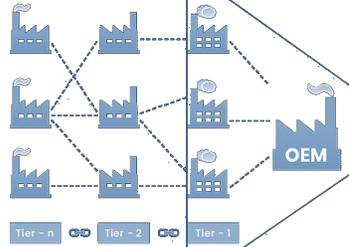


Supply chains rely on close human interaction; not ready for social distancing mode

More than any stress test, Covid-19 has uncovered major deficiencies and weaknesses in today's supply chains – as illustrated by examples (2 of 2):



Painstaking data gathering instead of end-to-end supply chain visibility



True delivery capacity of the entire supply network not known in the critical period



Critical shortages occurred with non-critical parts, too. Reclassification required.



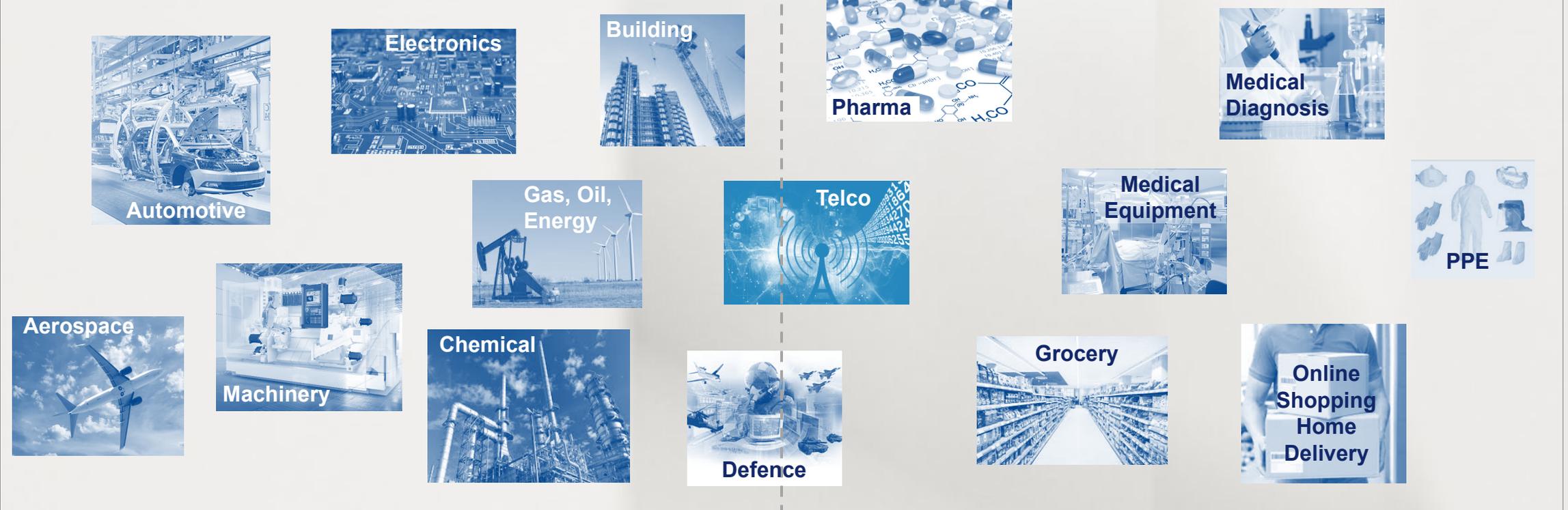
Availability of containers and empties disregarded by transportation planning



No empowerment with AI-based advanced scenario analysis and simulation tools

The lessons learnt from Covid-19 and the call for action on supply chains vary considerably between Industries and enterprises.

simplified illustration; open for discussion; each enterprise is affected differently by Covid-19



Some supply chains have already shown remarkable resilience to the shocks of the Covid-19 pandemic – illustrative examples are:



Grocery stores coped fairly well with increased demand. No major food supply issues due to assortment diversity and the uninterrupted production of basic goods.



E-Commerce, online shopping and home delivery managed the increased demand fairly well due to a (re-)focused assortment and a highly scalable logistics, which is used to volume peaks (e.g. Christmas).



Supply chain leaders, e.g. AGCO, with highly resilient supply chains and advanced supply risk mgmt. mastered the challenges of Covid-19 convincingly. Agile steering of global production sites and global supply networks. Even PPE were distributed to critical suppliers.



Though the Electronics and Chip Industry are hit hard, some highly automated fabs, e.g. Yangtze Memory, kept production going with an uninterrupted supply chain; even in Wuhan

The question is, what to prepare for next? Supply chains cannot be designed for every highly unlikely black swan event.

Leading questions

- What was the probability of a Covid-19-like pandemic?
- What events do supply chains have to be prepared for?
- Is there any glory in prevention?

Our viewpoint

- Companies can not plan for black swans
- Global lockdowns will not be the new normal, but volatility and increased risks will certainly be.

Our recommendation

- Improve the end-to-end transparency of the supply chain
- Increase supply chain resilience to any kind of disruption
- Leverage digital technologies for both goals



But no doubt, volatility and uncertainty will increase. Hence, supply chains have to become more transparent, resilient, agile and automated.

→ Improve Supply Chain Transparency by means of Digitalization

- End-to-End Supply Chain Visibility based on digital technologies (IoT, advanced analytics)
- Digital twin of supply chain networks for scenario analysis, simulation and monitoring
- Adequate supply chain risk management for risk prevention and monitoring
- Advanced vendor management and supply chain network analytics
- Automation to increase efficiency and to rely less on labor (social distancing)



→ Increase Supply Chain Resilience by leveraging Best Practices

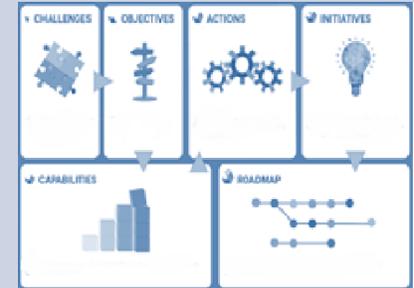
- Geo-redundant supply chains and selective regionalization (national borders matter)
- Right balance between global and local supply with optimal resilience
- Focused inventory increase, but only for most critical (emergency) items
- Supply diversification, multi-source strategies and strategic supplier development
- Agile capacity management with fluctuation bands and guaranteed delivery capacities
- Alternative supplies and virtual supply chains; possibly also additive manufacturing (3D printing)



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(Post-Covid-19) Supply Chain Transformation and Digital Strategy

- Analysis: Lessons learned from Covid-19 and supply chain shortcomings and missed capabilities
- Inspiration from supply chain best practices and digital enablers, which weathered the Covid-19 storm
- Post-Covid-19 target strategy and capability-based supply chain improvement objectives
- Supply Chain Transformation Roadmap Planning: Projects, Initiatives and Measures



Supply Chain Transparency and Digitalization

- Evaluate, design and implement digital solutions (IoT, AI/ML, Adv. Analytics) enabling End-to-End Supply Chain Visibility (Digital Twin) and adequate supply risk management
- Push ahead with automation for a highly efficient supply chain relying less on labor
- Synchronize Smart Supply Chain with Smart Factory initiative



Supply Chain Continuity and Resilience Mgmt.

- Update Supply Chain Contingency Plans; apply best practice patterns, e.g. IT Business Continuity restart procedures
- Design and implement proven best practice measures to enhance supply chain's resilience: Multi-source strategy, supplier development, geo-redundancy, agile capacity management, virtual supply chains



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SCM Transformation Planning

- Strategic capability-based targets and SCM transformation steps planning
- SCM transformation roadmap and project portfolio planning



Condition Monitoring

- Digital Automotive Supply Chain
- Technology and vendor selection
- Roadmap and business case



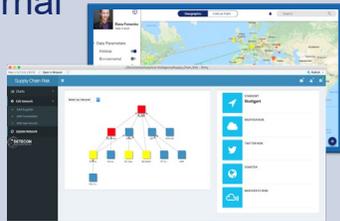
Paperless Logistics

- Fully transparency with sensor technology (Narrow Band IoT)
- Process automation (e.g. incoming goods control, digital waybill)



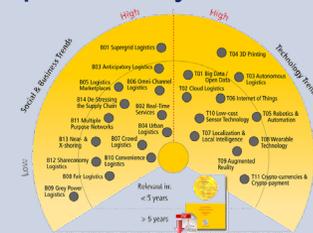
Predictive SCM Analytics

- Risk prediction for the entire Supply Chain Network (Tier n supplier)
- Internal and external data sources



Supply Chain Trend Radar

- Technology & SCM trend scouting
- SCM/Logistics impact analysis
- Trend radar
- Use cases



Insights from China's Restart

- China restarted, while EU shut down
- Time lead → What Europe can learn from China's restart experiences
- From surviving to thriving



Felix Theisinger

Partner

Detecon International GmbH
Sternengasse 14 – 16
50676 Köln - Germany
Phone: +49 160 3651212
Felix.Theisinger@detecon.com

Shengyi Yan

Detecon Consulting Co. Ltd.
Beijing - PR China 100600
Phone: +86 18610598192
Shengyi.Yan@detecon.com

Detecon International GmbH

Sternengasse 14 – 16
50676 Cologne (Germany)
Phone: +49 221 9161 0

www.detecon.com
info@detecon.com

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