2021 LCL eXplore *digital* conference: DATA DRIVEN SUPPLY CHAINS

How can Control Towers increase supply chain resilience? A use-case from Luxembourg's healthcare sector

Tuesday 9 March, 15:45 - 16:00 CET

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Luxembourg Centre for Logistics and Supply Chain Management (LCL)

MIT GLOBAL SCALE NETWORK

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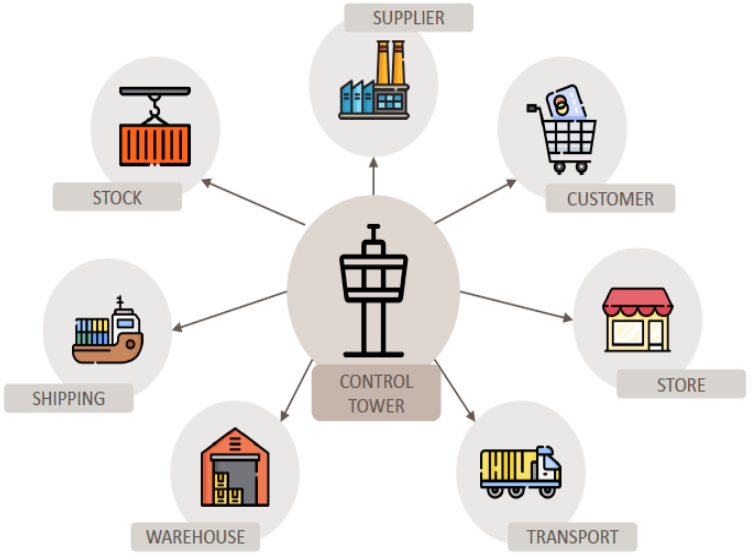
WHAT IS A SUPPLY CHAIN CONTROL TOWER?

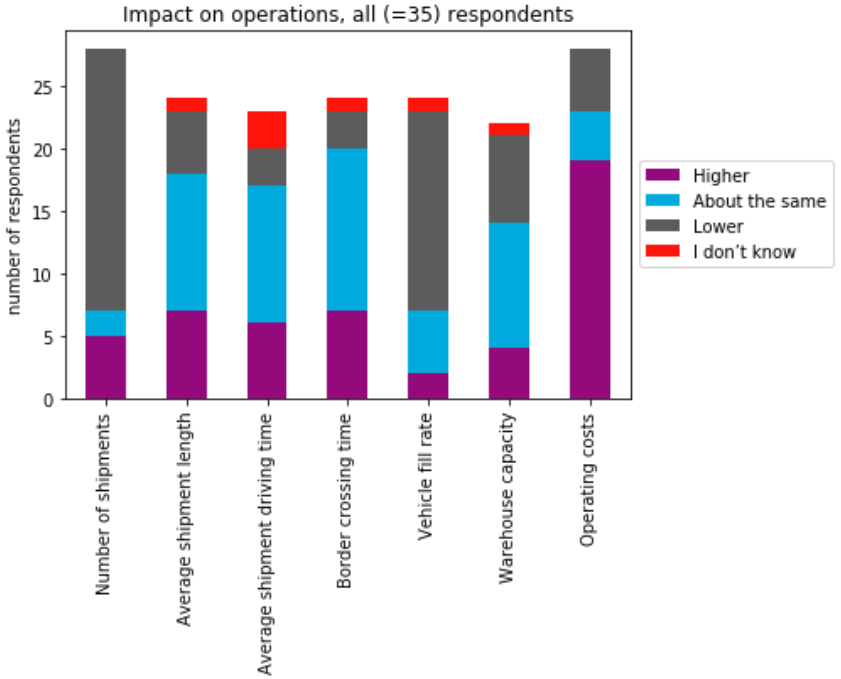
«A control tower captures end-to-end, data-driven insights for designing and optimizing the supply chain, as well as managing end-to-end exceptions, enabling intelligent end-to-end decisions within the business ecosystem.»

Source: Gartner, Inc.



WHY IS IT IMPORTANT?

Delhaize Supermarket, 16 March (Source: RTL.lu)



Logistics Networks Disruption Survey, April 2020
(Source: Research Luxembourg)

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ACTING NOW

A prototype control tower for Luxembourg's health sector

ACTING NoW (A Control Tower for the early IdeNtification of distress in loGistics NetWorks and essential supply chains) focused on mitigating supply chains and logistics disruption with a control tower approach.

Main results:

- Dashboard / Simulator
- Mobile App
- Supply chain resilience assessment toolkit

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INCERT

Supported by

Luxembourg National Research Fund

COVID-19/2020-1/14720335/ACTING NoW

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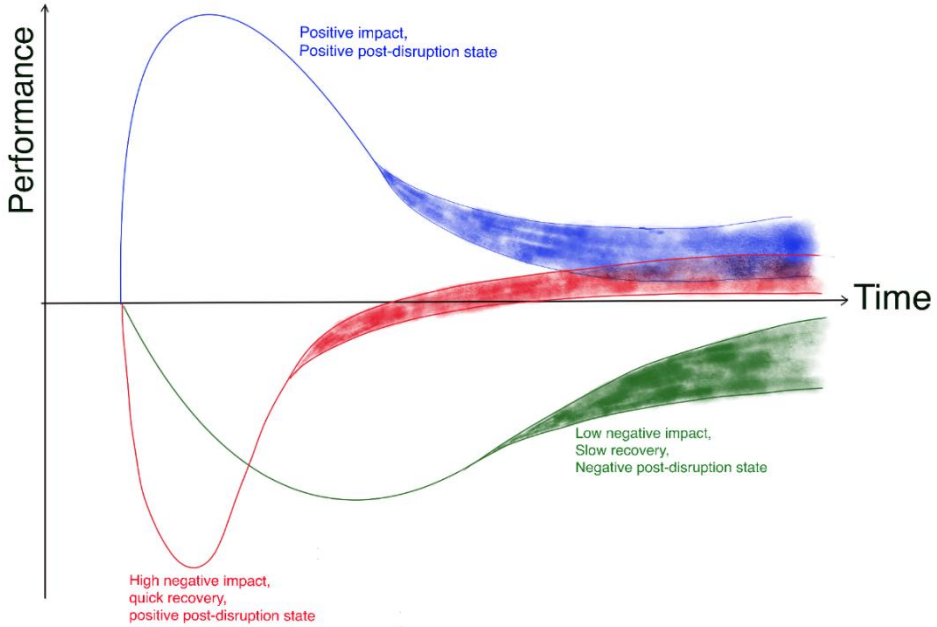
CONTROL TOWER

RESILIENCE ASSESSMENT TOOLKIT

Resilience redefined as: «The degree to which an organization (or a supply chain) is impacted – either negatively or positively – by an internal or an external disruption, the duration of the organizational distress and time to recover, and ultimately its post-disruption condition – whether it ends up in a better or worse long-term state».



Preprint available at http://hdl.handle.net/10993/46576

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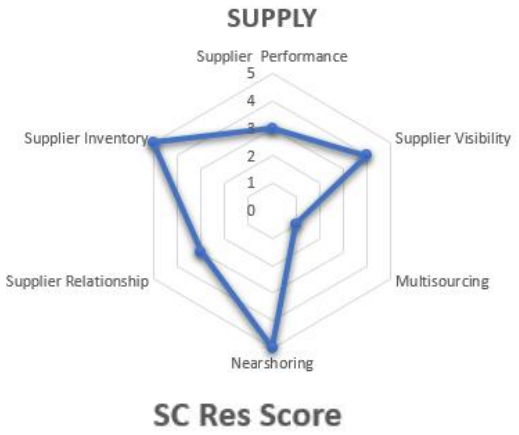
RESILIENCE ASSESSMENT TOOLKIT – PRACTICES

Supply	Internal Operations	Communication	Transportation	Distribution	Financial Resources	Human Resources	Other Practices
Supplier Performance	Location flexibility	Interactions with stakeholders	Transportation Flexibility	Marketing	Financial Reporting	Tracking workforce availability	Digitization
Supplier Visibility	Capacity flexibility	Organizational Visibility	Logistic Service Providers	Packaging	Insurance policies	Business Continuity	Automation
Multisourcing	Product Complexity	Backup of Data & Parallel IT system	Warehousing flexibility	Inventory Management	Liquidity	Skill Mapping and workload sharing	Scenario Planning
Nearshoring	Master Planning and Risk Assessment	Data Security	Logistics Visibility	Customer Services			Risk Mapping
Supplier Relationship	A comprehensive review of the literature resulted with mapping of practices for resilience to these 7 pillars						
Supplier Inventory							

RESILIENCE ASSESSMENT TOOLKIT – PURPOSE

- Assess companies' choices in their supply chain resilience design
- Provide guidelines for further action to enhance resilience
- Provide industry level view of supply chain maturity in the context of resilience
- Outcomes may encourage companies to share experiences and expertise (i.e., learn from the best)



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WHAT'S NEXT

1. **Control Tower for the health sector**: from the current POC to a more advanced prototype
2. **Control Tower for other sectors**: replicating the approach in other domains
3. **Resilience self-assessment tool**: further validation, testing, benchmarking