

Supply Chain Resilience

Logistics UK Annual Business Conference

London 20 March 2024





Welcome

Phil Roe

President Logistics UK

Today's sponsors & exhibitor

LOGISTICS UK

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ARUP CNSi endava:

Exhibitor



Use Sli.do for your questions Free WiFi network: America Square Conference Password: AMSQ12345

Join at: www.sli.do #SCR24

#SCR24







Today's programme

LOGISTICS UK

Start	End	Session name
09:00	09:05	Chair's welcome & Logistics UK introduction
09:00	09:30	Keynote: Government's view of UK supply chains and plans for the future
09:30	10:20	Panel session: Supply chain visibility - from IT solutions to supplier relationships
10:20	10:40	Coffee break & networking
10:40	11:40	Panel session: Global and local risks - trade route disruptions, military conflicts, ever changing legislation/regulation and climate change
11:40	12:00	Supply Chain Resilience modelling
12:00	12:50	Panel session: Are just-in-time logistics and sustainable technologies contributing to creating sustainable supply chains?
12:50	13:50	Lunch break & networking
13:50	14:20	Digital Readiness: Crafting Agile Supply Chains through Automation & APIs
14:20	14:50	Cyber security as key to resilience
14:50	15:30	Panel session: Is your HR strategy resilient?
15:30	15:40	Chair's close & open discussion





Keynote: Government's view of UK supply chains and plans for the future

Nusrat Ghani MP

Minister of state at the Department for Business and Trade

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Keynote: Government's view of UK supply chains and plans for the future

LOGISTICS UK

Q&A

To ask your question please use the link:

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Panel session: Supply chain visibility – from IT solutions to supplier relationships

- Chair: Richard Tucker, Director of new business development – Supply Chain, Endava
- James Doyle, Managing Partner, Boston Warwick
- Paul Brooks, Founder, Go Further Consulting



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Panel session: Supply chain visibility – from IT solutions to supplier relationships

LOGISTICS UK

Q&A

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Coffee break

Wednesday 20 March



Supply Chain Resilience

Logistics UK Annual Business Conference

London 20 March 2024





Panel session: Global and local risks to supply chains

- Chair: Michelle Gardner, Deputy Director Policy, Logistics UK
- James Hookham, Director, Global Shippers Forum
- Darren Briggs, Director Consulting ARUP

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James Hookham
Director, Global Shippers Forum

Use Sli.do for your questions
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- Markets or suppliers?
 - conflict, sanctions, tariffs, regulatory barriers, political/shareholder pressure
- ☐ Critical infrastructure?
 - transport, energy, information networks
- □ Places of doing business?
 - lockdowns, social distancing, public fear, civil unrest
- □ Data archives and processing capacity?
 - hack, leak, ransom, glitch



☐ Markets or suppliers?

You can't trade with your suppliers or your customers profitably, or at all

- conflict
- sanctions
- tariffs
- regulatory barriers
- political/shareholder pressure



☐ Critical infrastructure?

You can't physically bring in your supplies or get your goods to customers

- transport connectivity/congestion
- energy supplies
- information networks



☐ Places of doing business?

You can't bring your people together to make your supply chains work

- lockdowns
- social distancing
- public fear
- civil unrest



□ Data archives and processing capacity?

You can't access the information you need to make your supply chains work

- hack
- leak
- ransom
- system glitch



- ☐ Markets or suppliers?
- ☐ Critical infrastructure?
- ☐ Places of doing business?
- ☐ Data archives and processing capacity?





Darren Briggs
Director – Consulting, ARUP

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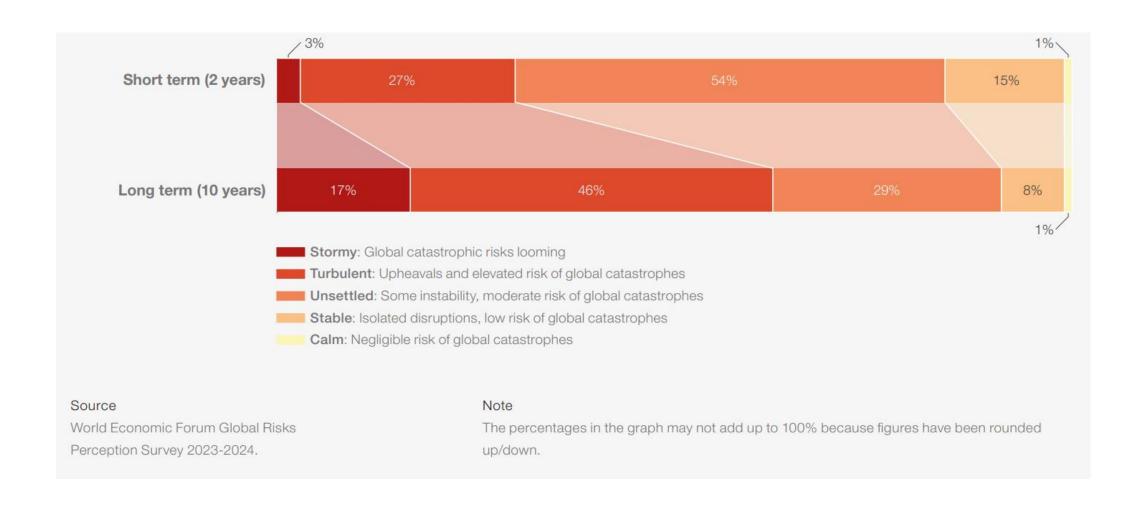


What are the risks?





What is impact?





What does this mean for logistics

Current freight network is increasingly inefficient, complex, and precarious.

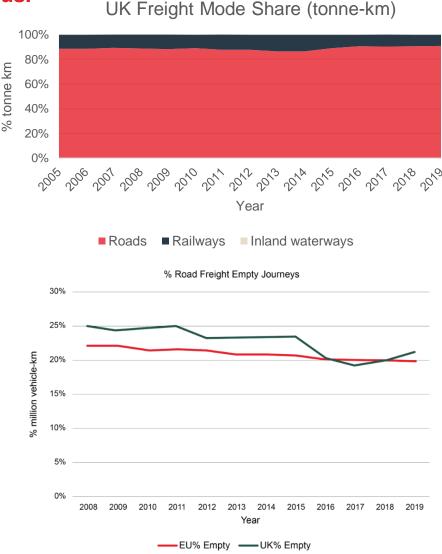
Carbon-intensive: Road transport dominates inland freight

Domestic freight distances in the UK have increased over time

Inefficient and empty trips are significant

Complex operations and reactive decisionmaking

Increasingly precarious



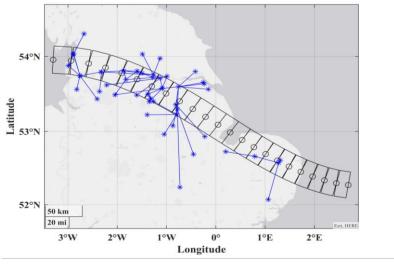
What are companies doing

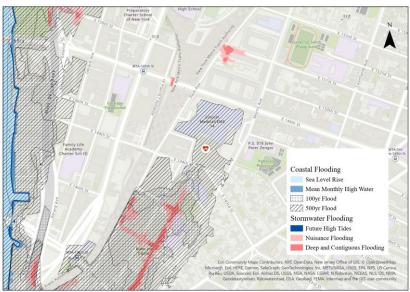
Diversifying supply chain & locations Increasing buffers

Improving forecasting

- Supply chain transparency
- Impossible to forecast every eventCollaboration



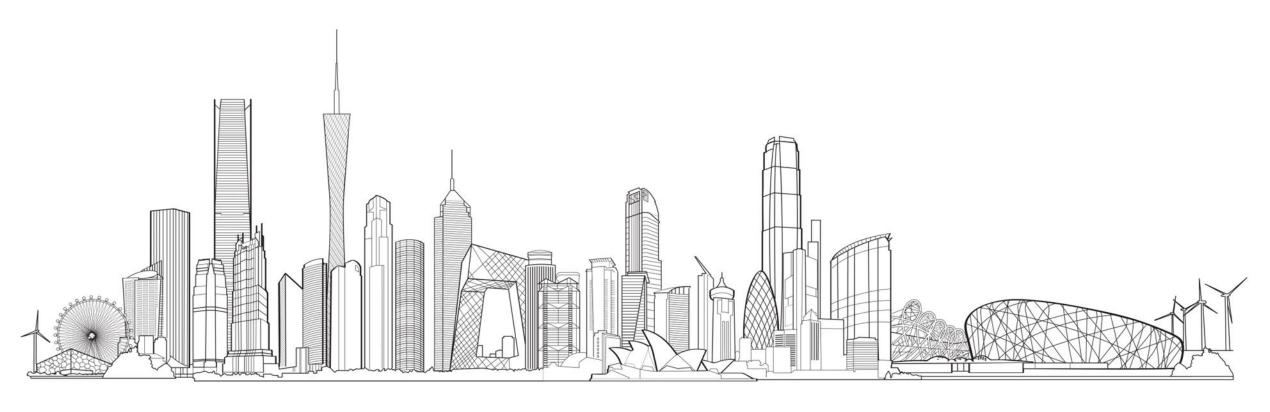






ARUP

darren.briggs@arup.comDirector - Logistics & Operations



Panel session: Global and local risks to supply chains

LOGISTICS UK

Q&A

To ask your question please use the link:

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Supply Chain Resilience modelling

- Tim Lawrence, Director, Digital Supply Chain Innovation Hub
- Dr. Alok Choudhary, Professor of Supply Chain Management, WMG, Warwick University

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Modelling Resilience to manage risks in your supply chain

Tim Lawrence Digital Catapult

Dr. Alok Choudhary Warwick Manufacturing Group



DIGITAL SUPPLY CHAIN HUB





Part of, and inspired by, the Made Smarter movement

Our **vision** is to transform UK manufacturing through digitally empowered supply chains that are more **efficient**, **resilient** and **sustainable**.





Addressing Industry Challenges: Through Innovation, Deployment and Adoption

Sustainable and Circular Supply chains

Resilient Supply Chains

Logistics optimisation

SC finance / working capital

Developing Digital SC Innovation Portfolio

Over 30 digital technology solutions developed working with Industry and Tech Innovators

Sustainability & net zero

Risk & resilience

Deployment in Supply Chain Test beds

Multi-Tier Supply Chain Test beds: Hydrogen, Automotive Spares, Food and Circular Textiles

End-to-end SC visibility

Supply / demand imbalance

Adoption by Industry

Collaborative Supply Chains

Supply chain collaboration

Launching our Digital Supply Chain Hub Platform to support industry Adoption (April 2024)





Uncertainty is becoming a fact of life for global supply chains:

Wars and Political Unrest



New Technologies



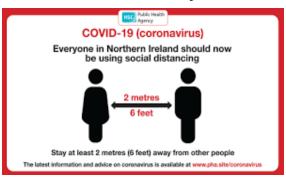
Commodity Prices



Increasing Regulation



Covid and recovery



Environmental



Continuing to drive Supply Chain Resilience to top of the agenda for Business and Government





SUPPLY CHAIN

Retail Weekly 20 Dec 2023

Business Age 9 Jan 2024

Red Sea attacks causing rising costs and increased shipping line rates

"Visibility into these challenges is much better understood now, and we have been working with businesses to develop pioneering new solutions that can provide retailers with early warnings of the potential for disruption to help them to prepare." said Lawrence.

ODINION

AI and Machine Learning will play a key role in strengthening supply chains next Christmas

Tim Lawrence explores real-world successes, urging businesses to embrace transformative solutions

BY TIM LAWRENCE

Manufacturer 27 Dec 2023 Most of the supply chains that we rely upon today have been disrupted and shaped in some way by the events of recent years. These unprecedented challenges have highlighted the need for more agile and resilient supply chains to navigate uncertainty and minimise disruption. Tim Lawrence, Director of the Digital Supply Chain Hub, <u>Digital Catapult</u>, explains.





DIGITAL SUPPLY CHAIN HUB

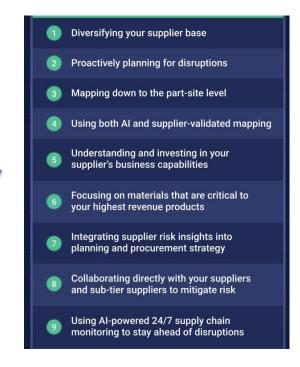




Next-normal supply chains are significantly more complex.

Traditional supply chain strategy areas of focus Next-normal strategy with new areas of focus Service Resilience Agility Cost and capital Quality Sustainability

Next Normal Supply Chain Strategies



Source: McKinsey & Co



New definition of Supply Chain Resilience

The ability of a supply chain to effectively prepare for, respond to, recover, and bounce forward from an unexpected disruption and grow sustainably by utilising natural and social resources responsibly and learning to adapt to future disruptions.



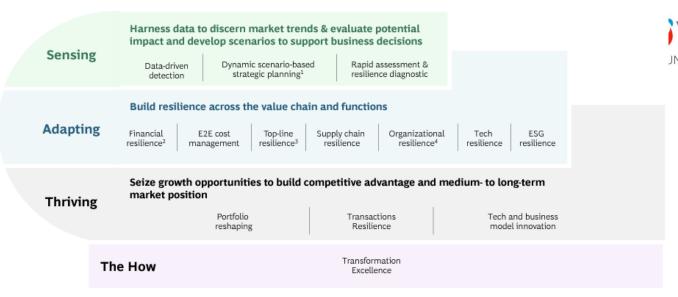
Six steps of supply chain resilience.

Supply Chain Resilience Frameworks

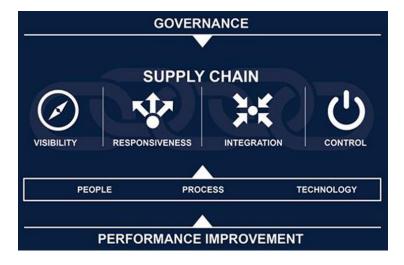
The Achilles Supply Chain Resilience Index (ASCRI)



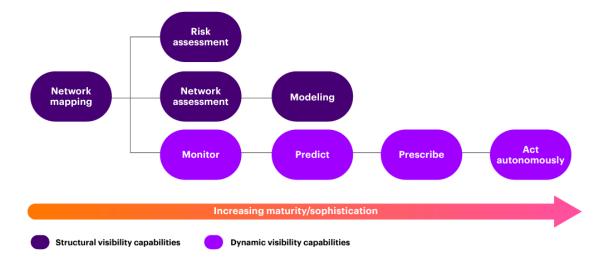
BCG: Sense, Adapt, Thrive Resilience Framework



Deloitte & Crowe SCR framework.



Accenture SCR framework.



ASCM Benchmarking tool resilience framework





The supply chain's ability to bounce back Operational supply Strategic supply and recover to a chain resilience chain resilience normal state of affairs

Operational Capabilities

The supply chain's ability to bounce forward and adapt to a new normal

Operational

Performance

WEF resilience framework

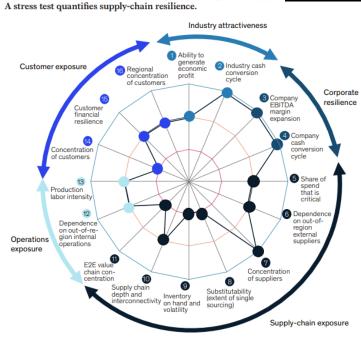


Position	& Prepare	Sense	& Plan	Mitigate & Respond		Recover	
Supply Chain Risk Management Maturity	End-to-End Transparency	Visibility - Information Flow	Risk Monitoring & Early Warning Systems	Redundancy & Flexibility	Agility - Responsiveness	Sandina	PP Change in Return on Assets
Supply Chain Risk	Liquidity Ratio	Risk Planning (BCPS/Scenario Planning & Stress Testing)	Supplier Collaboration	Safety & Security	Agility - Velocity	Sensing	PP Change
Management Talent	Leverage ratio						in Operating Margin

Strategic Capabilities						Strat
Lead		Build		Transform		
Leadership	Climate Risk Awareness	Supplier Relationships	Customer Relationships	Environmental Sustainability	Circularity	Supp
Corporate Commitments	Organizational Learning	Supply Chain	Supply Chain	Strategic	Supply Chain	Cond
Board Level Engagement		Workforce	Talent	Supply Chain Risk Mitigation	Innovation	

rategic Performance		The resiliency compass consists of eight dimensions:				
Adapt		Product portfolio: focus on product availability through active portfolio management.				
supplier oncent- Ration	% Change Scope 3 Carbon Emissions	2 Customer orientation: level of diversity and geographic proximity of client demand.				
		3 Financial viability: transparency on financial health across the end-to-end value chain.				
		Go-to-market channels: ability to serve demand through multiple diverse channels.				
		Logistics system: strong visibility and flexibility, and control over warehousing, inventory and transp				
	Resource Use	Manufacturing network: production network designed with resiliency in mind.				
		Supplier landscape: multiple and diverse sources of supply.				
		8 Advanced planning: ability to rapidly sense shifts in supply and demand and pivot appropriately.				

O	Product portfolio: focus on product availability through active portfolio management.
2	Customer orientation: level of diversity and geographic proximity of client demand.
3	Financial viability: transparency on financial health across the end-to-end value chain.
4	Go-to-market channels: ability to serve demand through multiple diverse channels.
6	Logistics system: strong visibility and flexibility, and control over warehousing, inventory and transportation.
6	Manufacturing network: production network designed with resiliency in mind.
7	Supplier landscape: multiple and diverse sources of supply.



McKinsey Supply chain resilience stress test

Supply Chain Resilience Framework





Three core considerations
Sustainability (ESG), Leadership, and Strategy

Three phases: pre-disruption, during-disruption, and post-disruption with a focus on readiness, responsiveness, recovery, sustainability & growth.

Three sets of time-based strategies

Proactive, concurrent and reactive strategies



Seven SC Core Capabilities

1. SC Planning

- 1. Risk Identification
- 2. Sensing/trend monitoring
- 3. Supply & demand planning & forecasting
- 4. Production planning
- 5. SC network design

2. Visibility

- 1. End-to-end SC mapping
- Prediction exploding data to improve forecast and segmentation
- Connectivity collecting real-time data throughout the E2E SC
- 4. Security securing data and flows
- 5. Transparency: tracking and traceability

3. Collaboration

- 1. Stakeholder management
- 2. Contract management
- Information sharing
- 4. Partnerships
- 5. Aligning risk appetite between suppliers-focal firm

4. Resource Management

- 1. Cash & Finance Management
- 2. Product & Material Management
- 3. Information & Technology Management
- Human Resource Management
 Assest Maintenance

5. Supply Flexibility

- 1. Single vs. Multi-sourcing
- 2. Diversified sourcing
- 3. Process standardisation
- 4. Contingency transport and capacity management
- 5. Global, regional and local sourcing

6. Learning

- Capturing lessons learnt internally and introducing new KPIs
- Managing knowledge mobility internally and externally
- 3. Training and education package
- 4. Ownership of risks and control KPIs
- 5. Transilience = the ability to simultaneously restore process and change often radically

7. Adaptability

As a result of a disruption, learning from this disruption must revise all steps below:

- 1 SC Planning
- 2. Visibility
- 3. Collaboration
- 4. Resource Management
- 5. Supply Flexibility

Digital Supply Chain Resilience (SCR) tool



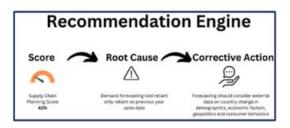


Redefine Supply Chain Resilience

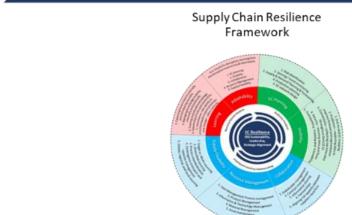


Survey Questionnaire

0



Recommendation and Mitigation Strategies



Supply Chain Resilience Index



Integrate with other Sustainability tools ... ?

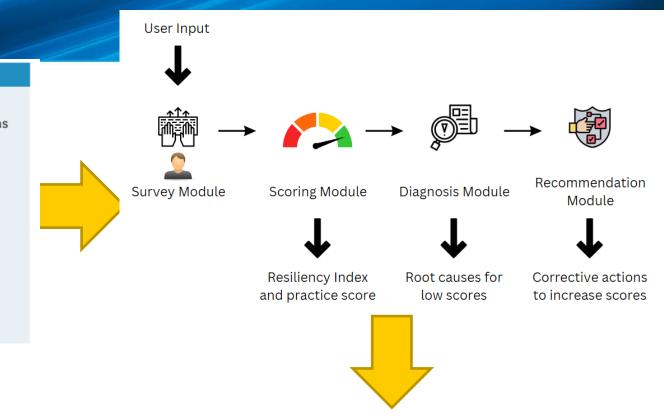


Visual demonstration of the SCR digital tool

WMG Supply Chain Resilience

Supply Chain Planning

- 1. Does your demand forecasting tool/software incorporate the effect of external factors such as price changes, geopolitical tensions, economic factors?
 - The tool incorporates past real-time external data and uses previous years internal (sales, inventory level etc.) past data as baseline for estimating forecasts
 - The tool incorporates past external data and uses previous years internal (sales, inventory level etc.) data as baseline for estimating forecasts
 - The tool only incorporates past previous years internal data (sales, inventory level etc.) data and expert knowledge for estimating forecasts
 - The tool only incorporates previous years internal data (sales, inventory level etc.)
 - No capabilities for demand forecasting and trend monitoring
- Not Applicable



Recommendation Engine





Supply Chain Planning 43%

Root Cause



Demand forecasting tool only reliant on previous year sales data

Corrective Action



Forecasting should consider external data on country change in demographics, economic factors, geopolitics and consumer behaviours



Resilience Index Score

Supply Chain

Visibility

Readiness

Supply Chain

Planning

70%

Practice Area Scores







Colloboration



Supply









Supply Chain Resilience Navigator





360 Degree Report

Resilience Navigator

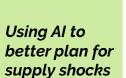
A Comprehensive Toolkit for Supply Chain Resilience Capability Assessment



Survey Completed by	Company	Date of Report	
Luke Bellamy [luke_bellamy@warwidc.ac.uk]	WMG, University of Warwick	15th January 2024	



Address Resilience through Digital Innovation: examples

















A true HUB offering





Delivering on the core objectives of Made Smarter Innovation

Most diverse supply chain community Of supply chain businesses, industry leaders, experts, innovators and investors **The Hub** A platform for A portfolio of critical More ambitious continuous collaboration leadership innovation projects Convening the community Flagship projects More innovation and facilitating the flow of Challenge projects **Better implementation** essential knowledge, tools and adoption and connectivity Nationwide network of living labs Testbeds and demonstrators

Place-based focus

Building Responsible and Resilient UK Manufacturing Supply Chains

Our Vision

To develop, grow, and anchor supply chain capability and resilience in the UK by leveraging fundamental and applied supply chain research knowledge.

As a result, the UK's high-value manufacturing base will be strengthened against emerging new challenges and disruptions, and efforts to increase UK based manufacturing will be accelerated.







https://supplychainresiliencehub.com/ Email: alok.Choudhary@warwick.ac.uk



IN PARTNERSHIP WITH:









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Get in Contact or Register your interest at

digitalsupplychainhub.uk



DIGITAL SUPPLY CHAIN HUB

Q&A

To ask your question please use the link:

https://www.sli.do/ #SCR24



Panel session: Are just-in-time logistics and sustainable technologies contributing to creating sustainable supply chains?

- Chair: Kevin Green, Policy Director, Logistics UK
- Scott Merrick, Product Director, Robotics and Automation, Wincanton
- Tim Morris, Group Head of Corporate
 Communications, Associated British Ports
- Ines Sordo, Sustainability Manager, Wickes

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Ines Sordo Sustainability Manager, Wickes

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Scott Merrick

Product Director, Robotics and Automation, Wincanton

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Lunch break

Wednesday 20 March



Supply Chain Resilience

Logistics UK Annual Business Conference

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Digital Readiness: Crafting Agile Supply Chains through Automation & APIs

- Billy Dawson, Business Manager, CNS Online
- Matthew White, Product Manager, CNS Online

CNS

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DIGITAL READINESS

CRAFTING RESILIENT SUPPLY CHAINS THROUGH AUTOMATION & APIS











BOOKING A HOLIDAY





WHERE TO BEGIN?



THE POWER TRIO: DIGITISATION, AUTOMATION, & API'S

Digitisation

Automation

APIs



Digitisation

Converting Complexity into Clarity

Automation

APIs



Digitisation

Automation

Efficiency and Precision at Scale

APIs



Digitisation

Automation

APIs

The Connective Tissue of Digital Integration



WHAT DOES THE FUTURE LOOK LIKE?

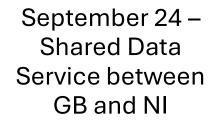




THE NEW ERA OF SUPPLY CHAIN COMPLEXITY

June 24 – Export deadline for CDS Switch

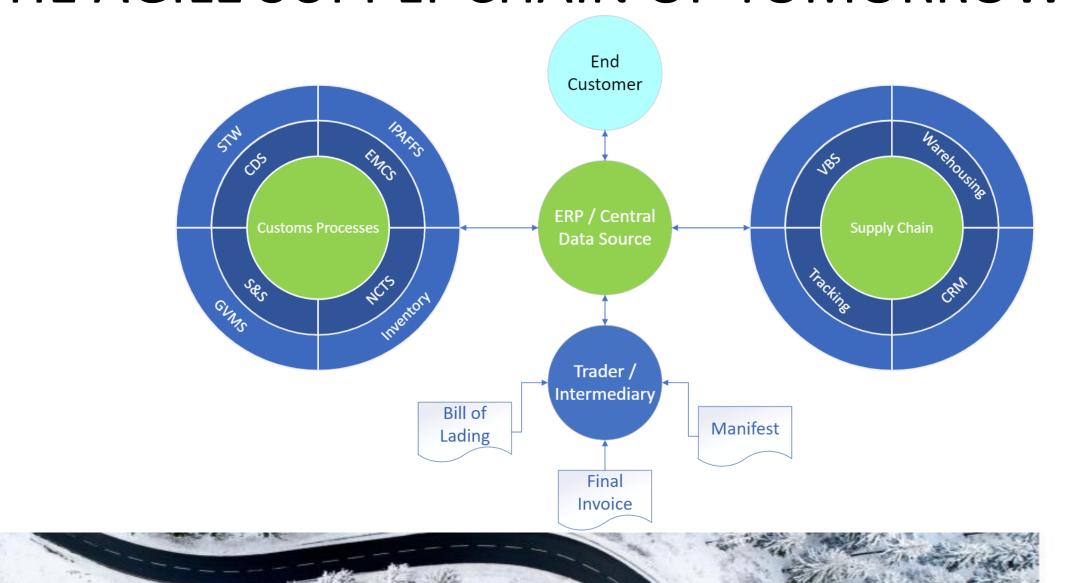
October 24 – GB S&S requirement for EU imports



December 24 – End of ICS2 Phase 3 Stage 1



THE AGILE SUPPLY CHAIN OF TOMORROW





THANK YOU

CNSONLINE.CO.UK Getonboard@cnsonline.net



Digital Readiness: Crafting Agile Supply Chains through Automation & APIs

LOGISTICS UK

Q&A

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Cyber security as key to resilience

Stewart Room

Partner, DWF LLP

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Stewart Room



"Room brings a wealth of data protection and cybersecurity experience to cases. He is highly regarded for his ability to advise on data investigations and contentious cases. He is pre-eminent for data security. He tells you what the regulators and court will think and he thinks of things you won't have thought of." Chambers UK.

Biography

- ☐ Barrister & Solicitor, called to the Bar in 1991 and admitted to the Roll in 2022.
- ☐ Rated as a leading lawyer in Data Protection & Cyber Security by the Legal Directories since 2010.
- ☐ Global DP&CS Leader, DWF.
- ☐ Former Global DP&CS Legal Services Leader, PwC.
- ☐ Hon. President of the National Association of Data Protection Officers.
- ☐ Advisory Board Member, The Cyber Resilience Centre for London.
- ☐ Co-founder of The Cyber Security Challenge UK.
- ☐ Member of the EDPB expert support pool.
- ☐ Author/ co-author of various legal textbooks in DP&CS.
- ☐ Stewart.Room@DWF.Law
- □ https://www.security.law
- □ https://www.linkedin.com/in/stewart-room-6308213/

Part 1.

How do these topics relate to one another?



Different topics, but indivisible

Key concepts

- ☐ Resilience is the ability to withstand shocks.
 - □ ISO 27031 says this is the "ability of an organisation to resist being affected by disruptions".
 - □ NCSC says it is "a measure of how readily a system can persist in a changing environment".
- ☐ Cyber Security is the protection of network and information systems and their users from cyber security threats.
- ☐ Therefore, a highly cyber-resilient organisation would be able to flex and adapt to a cyber-attack and it's daily business would not be unduly disrupted.
- ☐ The indivisible nature of these topics is illustrated by:
 - ☐ HMG policy Pillar 2 of the National Cyber Security Strategy is "Cyber Resilience".
 - □ Standards for information security (a facet of cyber security) best practice include resilience within the various security domains to be addressed by security policies see ISO 27002, Clause 5.1.
 - ☐ Standards for Business Continuity stress the significance of ICT Readiness see ISO 22031.

Part 2.

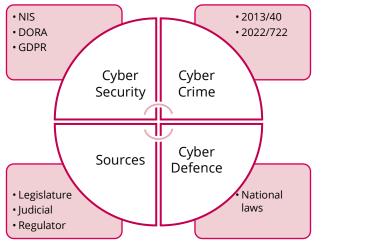
Why are we concerned about supply chains

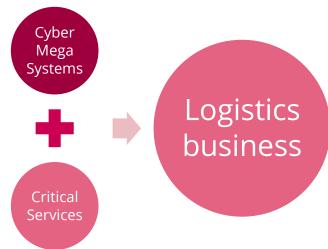


Two areas of focus

There are (a) supply chains and (b) logistics, but (b) will also use (a)

- ☐ The cyber attack surface and blast zones are massively expanded by the interconnectivity of actors in cyber space, i.e., we all rely on "suppliers", thus a cyber-attack on a supplier can spawn an attack on the customer or impact many organisations (e.g., MovelT breach).
- ☐ Many areas of rail, air, water and road transport logistics are critical services in the economy see NIS Regulations.
- ☐ Civilian logistics blends into military domains.







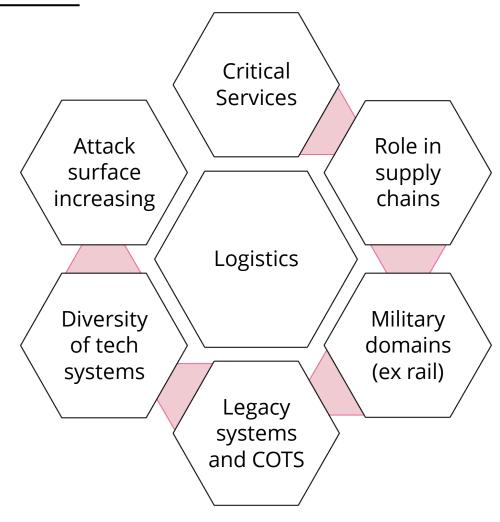
High profile attacks on logistics

Attacks on logistic are real, present dangers

- □ 2024 Houthi Red Sea.
- □ 2024 Grant Shapps jamming attack.
- □ 2023 ENISA Threat Landscape: Transport Sector report:
 - ☐ Prime threats ransomware 38%, data-related thefts 30%, malware 17%, DoS 16%, phishing 10%, supply-chain 10%.
 - Proximity near, mid, far, global.
 - ☐ Threat actors cybercriminals, hackers-for-hire, state-sponsored, hacktivists.
 - ☐ Motivations espionage, financial gain, ideology, operational disruption.
- □ 2022 Royal Mail.
- □ 2021 Air India hack, affecting 4.5m customers.
- □ 2021 Bangkok Air ransomware attack.
- □ 2021 SITA passenger service system.
- ☐ 2019 Travelex.
- □ 2018 Gatwick drones.
- □ 2017 NotPetya wiper attack on Ukraine, crippled Maersk.
- □ 2015 ACARS hacks grounding Polish and US flights.
- □ 2012 GPS jamming at Liberty international Airport.
- 77 Logistics UK Supply Chain Resilience 24 Cyber Security as key to Resilience



Why logistics are exposed



Part 3.
What should we do about it?



Critical action points

Recommendations

- Address cyber security within the context of business resilience. Cyber-attacks are inevitable, so we need to be able to transition from the attacked environment to a clean one.
 - □ Align cyber security to business continuity management and disaster recovery.
- ☐ Take a risk-based approach, measuring risk utilising both a top-down and bottom-up approach.
 - Often, security over-invests in the bottom-up approach of individual assets and controls, whereas a top-down approach will focus us on scenarios.
- ☐ Ensure that cyber security is a Board-level issue. If cyber is not owned at the Board level in a meaningful sense, you will fail.
 - ☐ Ensure that the Board is fit to provide effective challenge and that it sets an appropriate "tone from the top".
 - ☐ Be honest with yourself.
- □ Align yourself to your legal obligations and the standards and advice that are published by government, their agencies and regulators.
- ☐ Make sure that you are properly rehearsed for an attack. You need a playbook.
- ☐ If you are a smaller organisation without the resources to do all of the above, be clever in your thinking about where you can turn for help and what your priorities are. For example, consider schemes such as Cyber Essentials.

Q&A

To ask your question please use the link:

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LOGISTICS UK

Panel Session: Is your HR strategy resilient?

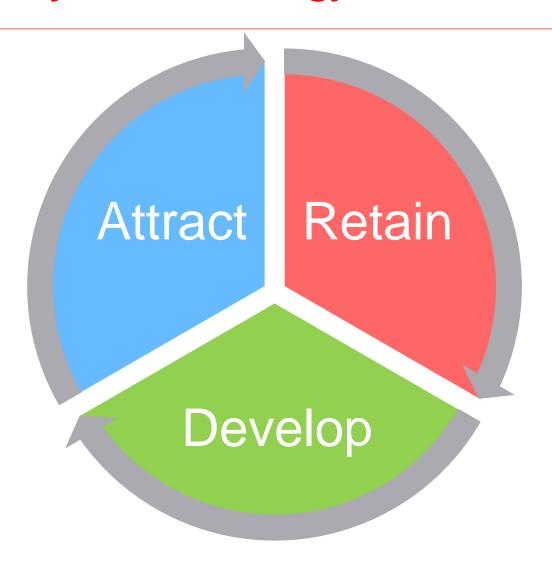
- Louisa Hosegood, Transformation and Strategy Director, Visku
- Phil Roe, President, Logistics UK
- Bethany Windsor, Director of Stakeholder Engagement and Relationship Management, CILT

Use Sli.do for your questions

Join at: www.sli.do #SCR24

Panel Session: Is your HR strategy resilient?

LOGISTICS UK



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LOGISTICS UK

Closing session

Phil Roe
Logistics UK
Andy Fitt
Logistics UK

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Logistics UK's Logistics Awards 2024

Park Plaza Westminster Bridge, Thursday 12 December

Enter now or book your table to secure your place at this sell-out event at www.logistics.org.uk/logistics24



LOGISTICS UK

Supply Chain Resilience

Logistics UK Annual Business Conference

Thank you!

