Advisory

Ports Supply Chain Resilience

From crisis response to long-term resilience planning across sea, air and land corridors



Lloyd's Register (LR) Advisory helps organisations assess supply chain vulnerabilities and plan practical responses to disruption. Our Ports Supply Chain Resilience service connects immediate cargo continuity with the corridor and infrastructure decisions needed to reduce longer-term exposure.

Understand where disruption spreads

Port supply chains have never been under greater pressure, and disruption can originate from almost anywhere:

- Geopolitical conflict and trade disruption
- Port congestion and capacity constraints
- Extreme weather and climate-related events
- Infrastructure failures
- Labour shortages
- Cyber threats
- Inland transport bottlenecks.

Assess the connected network

We map supply chains and identify critical dependencies across maritime and inland logistics networks, including air connections. Vulnerability assessments, scenario modelling and disruption stress testing examine how current operating models respond under pressure.

The assessment connects seaports and airports with road borders, rail links and inland logistics nodes, including strategic inventory positioning. The findings help shape contingency plans and guide future investment decisions.

Compare workable alternatives

Sea

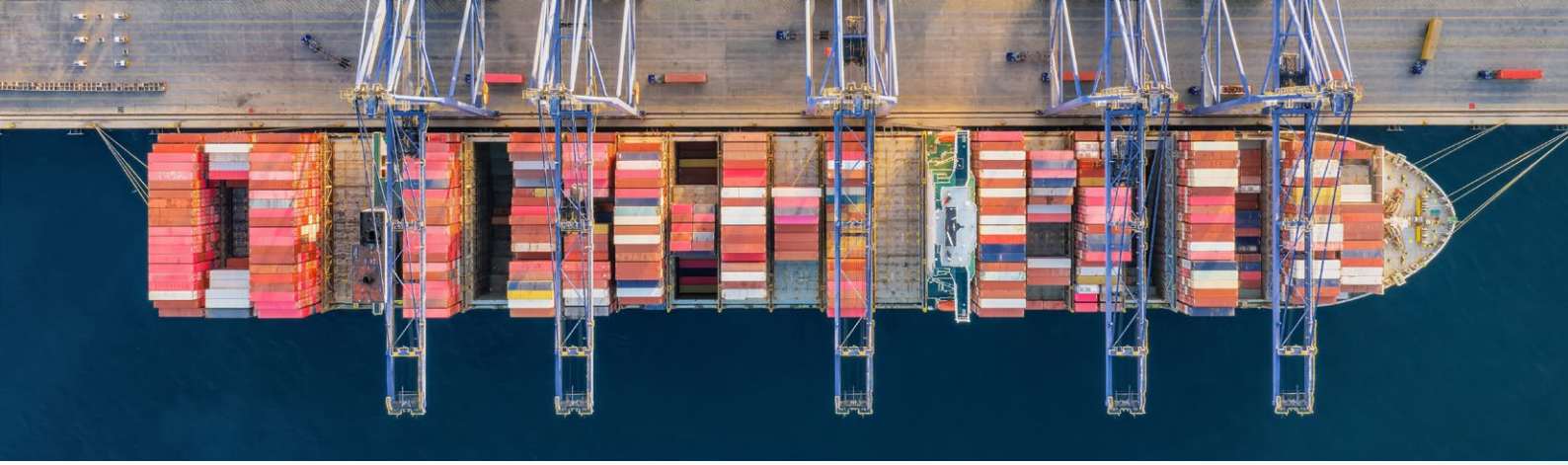
Assessments consider alternative gateways and feeder patterns, taking account of port capacity, marine constraints and bunkering exposure. Outputs include gateway screening and port-operating assumptions, supported by maritime risk and cost-time-risk comparisons.

Air

Assessments examine cargo continuity under airspace restrictions, including airport alternatives and capacity constraints. They address premium shipment priorities and define corridor options, service recovery logic and escalation triggers.

Land

Assessments cover bonded trucking and border interfaces, alongside rail availability, dry ports and inland hubs. Outputs include road and rail corridor mapping, an inland node strategy and inputs for logistics-control tower decisions and implementation sequencing.



Short-term disruption management

We develop practical continuity measures using available gateways and transport combinations. Our short-term support covers 0–90 days and includes:

- Rapid disruption assessment across ports, airports, road borders, rail interfaces and critical commodities. Outputs include an executive briefing, disruption map and priority cargo view
- A 30–60–90 day plan covering immediate continuity actions, governance and trigger-based operating rules
- Alternative sea, sea-air, sea-land and air-land routing strategies, including bonded and cross-border options where feasible. An alternative corridors matrix compares routes by commodity, service level and risk
- Cargo prioritisation for food, medicine, energy, industrial inputs and time-sensitive exports
- Control-tower style decision support and implementation sequencing
- A war-room operating playbook defining diversion triggers, routing rules, surge capacity actions, customer communication and governance
- Commercial impact modelling of delay, cost, capacity, service and risk trade-offs.

Plan longer-term resilience

For planning over 3 months–5 years, we assess how corridor diversification and infrastructure development can reduce dependence on individual chokepoints. Support includes:

- Corridor strategies, concept master plans and feasibility studies for dry ports, inland logistics hubs, bonded logistics corridors, rail-connected freight nodes and strategic stockholding locations
- Infrastructure and investment planning across port-airport-road-rail interfaces, including redundancy measures and emergency operating concepts.
- A phased resilience plan with capital priorities and key performance indicators (KPIs)
- Policy actions and governance and regulatory recommendations for crisis response, customs enablement, corridor coordination and public-private decision-making
- Business cases, delivery strategies and procurement support for resilient logistics infrastructure.

Key benefits

1. Reduce exposure to disruption
2. Improve visibility of critical risks and operational dependencies
3. Strengthen coordination across supply chain partners
4. Make better-informed infrastructure and investment decisions
5. Maintain continuity and strengthen long-term performance.



Arrange a resilience discussion

Speak with a Ports Advisory expert about your critical dependencies, immediate continuity needs and longer-term investment priorities.

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Who we work with

Our service supports governments and regulators developing national or corridor-level continuity strategies, alongside port authorities, airports, free zones and special economic zones.

We also work with terminal operators and logistics providers considering network changes or investment priorities, and investors and development banks assessing resilient infrastructure opportunities.

Why LR Advisory

We bring expertise across ports, terminals and maritime operations, with an end-to-end perspective on intermodal logistics, risk management and infrastructure investment.

We combine strategic advisory with practical implementation thinking, supported by operating model design and technical due diligence.

LR Advisory

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