



Building the secure supply chain of the future

Supply chain challenges may not be on every consumer's mind—but, as we are learning, they should be.

It's hard to find anyone who regularly shops at the grocery store who hasn't noticed shortages of goods that used to be plentiful. Ask any driver about the price of gas, and you'll likely get an earful. And ask any gamer looking to buy a PlayStation 5, and you'll almost certainly get a tale of woe.

All these frustrations—and more—can be attributed to the complex pressures on global supply chain networks.

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In Canada, we have our own experiences with supply chain disruptions. In November 2021, following a series of extraordinary rainstorms, Metro Vancouver was cut off from the rest of Canada by road and rail. British Columbia declared a state of emergency and consumers started to panic as farmland was flooded and the rationing of gasoline resources was imposed.

It was also just the latest in a series of extreme weather events. That summer, a record-breaking heat dome and severe wildfires in British Columbia caused major ecological damage and negatively affected human health.

As these kinds of climate change-related events occur more frequently, disruptions to supply chains are also likely to become more common and physical transportation assets to wear down more quickly.

C-level executives around the world are already on alert. A full 97% of the executives surveyed for the [Deloitte 2022 CxO sustainability report](#) agreed that their companies have already experienced the negative impacts of climate change, with 80% indicating that they've been personally impacted.

It's no wonder that the same executives also noted feeling pressured to act—by regulators, boards, civil society, and even consumers.

The supply chain may be global but local challenges require local solutions—and we'll need a made-in-Canada approach to solve nationwide issues.

That was the subject of a recent panel discussion at the Greater Vancouver Board of Trade sponsored by Deloitte. The panel posed the question: **with the challenges we face—both short-term and long-term—how do we build the secure supply chain of the future?**

That prompted a fascinating discussion from which three priorities emerged:

1 Establish an ecosystem—and ensure that it works

Supply chain fragility is a pressing public problem. It's also a problem that governments cannot fix alone. Multiple actors, from freight companies to airlines to port authorities, need to interact and intersect with governments. It's only through an approach that considers all these actors as an ecosystem that Canada's supply chain problems can be solved.

What this ecosystem-based approach looks like will vary. From the governmental perspective, it may be establishing more reliable and predictable permitting processes, or streamlining regulations to allow infrastructure to come online more quickly and attract more private sector infrastructure investment to Canada.

From the private sector's perspective, it may be creating more flexibility by refusing to be locked in to one mode of transportation. This approach will build resiliency into the system, ensuring that deficiencies in one mode of transportation can be made up for elsewhere in the network. A shipping container shortage on ships, for example, can be made up for by chartering vessels. A railway disruption can be mitigated with trucks. Similarly, a slowdown in one port can be handled by pivoting to another.

"It's really important that we step away from looking at isolated assets and consider system-wide, network-based assessments of vulnerabilities and risks to build truly resilient systems to external stresses. And I think some of our greatest success ... has come from past instances where we found ways to collaborate and work together across agencies and across levels of government to partner with the private sector."

Devan Fitch

*Director, Infrastructure Delivery
Vancouver Fraser Port Authority*



“There is a lot of private sector interest to invest in Canada, but we need a transparent regulatory process. Investors need to know what the rules are governing a decision. Will timely decisions be made to allow investments to unlock the capacity that we desperately need? Will investments be against a long-term plan? We urgently need to identify the pinch points and make targeted investments to resolve them.”

Lindsay Kislock
President and CEO, WESTAC

Operationally, the ecosystem-based approach may look like working to address system bottlenecks along with long-term systemic risks. The labour shortage that has made headlines on both sides of the border can be considered a bottleneck with respect to not only expanding existing infrastructure capacity, but also staffing existing infrastructure and ensuring that it can handle the volume of goods it needs to. But even if this challenge is resolved, long-term threats like climate change, including severe weather events, must also be addressed by mitigating the risks associated with them.

Overcoming the shortage of labour means working with universities and trade schools to ensure that tomorrow's workers are equipped with the skills that the logistics sector needs. It also means skilling up today's workers, which will be especially important as automation and machine-learning strategies create new jobs that require working with, maintaining, and creating automated systems. While automation-driven labour market shifts are likely to happen slowly, acting today to ensure that people can develop these much-needed skills will help keep a worker who is 30 years old today productive, employed, and driving economic growth until they reach retirement.

2 Move quickly to respond to short-term issues

Acute disruptions, such as those caused by the restrictions put in place during the COVID-19 pandemic and the aftermath of the extreme weather in British Columbia, require quick pivots to ensure continuity of service. The BC government, for its part, acted quickly to resolve intense challenges. The Coquihalla Highway, for example, was reopened just 35 days after floods and mudslides wreaked havoc along 130 kilometres of the important transportation corridor.

The private sector in British Columbia reacted quickly, too. Companies moved to air cargo service after passenger air travel abruptly stopped and rotated through various modes of transportation to keep shelves stocked in the supply chain crunch.

The complex, multi-organizational, multi-jurisdictional nature of supply chains means that collaboration between public and private sector partners is extremely important—especially in a time of crisis. With recent examples of close collaboration and integration so fresh in our minds, we could capitalize on the opportunity to make that flexibility a permanent feature. Working together, we can build more resiliency into our supply chain by also addressing medium- and long-term threats and achieve our supply chain goals by ensuring that new investment is made in a coordinated and intentional fashion. Should another crisis strike, those working relationships and effective collaboration will already be in place.



“I really was struck, when driving through the Coquihalla a week ago [in May 2022], just how quickly things have come back together. There are only a few places along the highway where you'd know that there was a lot of damage—cars were moving very easily, so were big trucks. Given the magnitude of the devastation, and how business and several levels of government came together to work so quickly in a crisis, what are the lessons that can be applied going forward?”

Bridgitte Anderson
President, Greater Vancouver Board of Trade



3 Look for long-term threats
Reacting quickly in a time of crisis is critical, but it's even better if the crisis doesn't happen in the first place. For Canada, that means building a long-term, resilient infrastructure plan—and then executing it. Such a plan requires measurable outcomes to guide investment, a clear regulatory process for timely project approvals, and a pipeline of shovel-ready infrastructure projects for the next 10 to 15 years that can be funded by both public and private parties.

It also means looking to technical solutions that will allow the sector to collectively fulfill its climate responsibilities. What

these solutions might look like will vary: for rail, it may be hydrogen locomotives; for warehousing, it might be battery-operated heavy equipment and net-zero buildings.

In aerospace, it could be [sustainable aviation fuel \(SAF\)](#), a lower-carbon fuel derived from non-petroleum sources. According to the International Energy Agency, net-zero won't be achieved without SAF accounting for at least 75% of aviation fuels worldwide. While it's presently much more expensive than conventional jet fuel, smart policies on both the supply and demand sides could help accelerate market development in Canada and bring this innovative technology to scale.

“The pandemic taught us how to be very fast, and to move quickly. We've got to take that and build that into our processes. If we want the supply chain to be strong and thrive in BC, we've got to move quickly, and in collaboration through all the modes of transport as well as our partners in the government. We need to continue to act as if we are in the pandemic in that moment of crisis, and ask: how do we prioritize, and continue to work together through diverse and challenging times?”

Jason Berry
Vice-President, Cargo
Air Canada



A national imperative

Canada is a trading nation. Two-thirds of our GDP is related to the import-export trade. Without a dynamic transport and trade network, our economy suffers, as do tax revenues and the ability of government to deliver public services.

And that network is currently under threat. There's pressure on every part of the supply chain. Costs are rising. Extreme weather events, like those that cut off Metro Vancouver, are likely to become more frequent.

All while Canada suffers from an infrastructure investment deficit. We have an incredible opportunity to build on the momentum of the system-wide collaboration and coordinated action we proved ourselves capable of during the pandemic. We must take it to establish a vigorous supply chain ecosystem, address both long- and short-term issues, and invest in our infrastructure. Together, we can build a more resilient supply chain, a more robust economy, and a more prosperous Canada.

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