



Emerging trends in infrastructure

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Trend 1:

Uncertainty creates planning complexity

Planning for the future has never been more challenging. We expect infrastructure planners, operators and developers to start looking for ways to enable a much more nimble and flexible approach to infrastructure planning, development and delivery.

Trend 3:

Borders become real again

Disruption has put the brakes on globalization — for now. What steps will airport and port operators take to bounce back? We will likely see operators start to consider the art of the possible — looking for ways to unlock value from data, contributing to a greener and cleaner environment and planning for an eventual return to stable growth.

Trend 4:

Infrastructure supply networks evolve

We expect to see the pace of change in infrastructure and construction supply chains pick up as organizations invest in resiliency.

Infrastructure developers will also start to think more broadly about the factors that influence their supply strategies, including sourcing talent.



Trend 7:

Resilience jumps up the agenda

We expect infrastructure owners, planners and regulators to start asking difficult questions about the resilience of their assets in the broadest sense. Robust resilience plans will be crucial.

Trend 10:

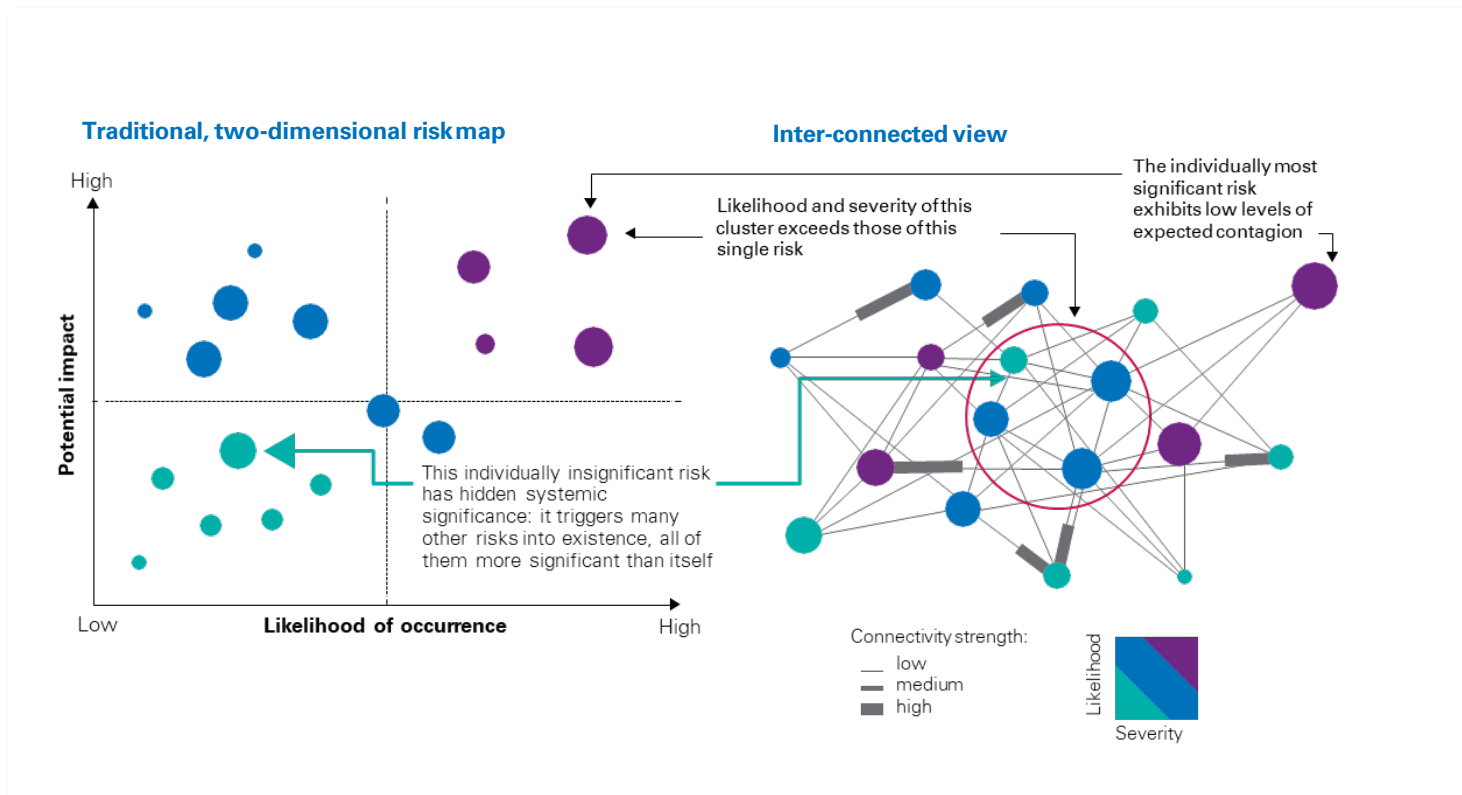
Governments look for partners

Governments increasingly see that the private sector can be a trusted delivery partner. And as a result, a range of new opportunities for private sector participation are emerging. Expect that these new partnerships will be driven by innovation and the desire to deliver more to stakeholders. Governments and citizens should be delighted.

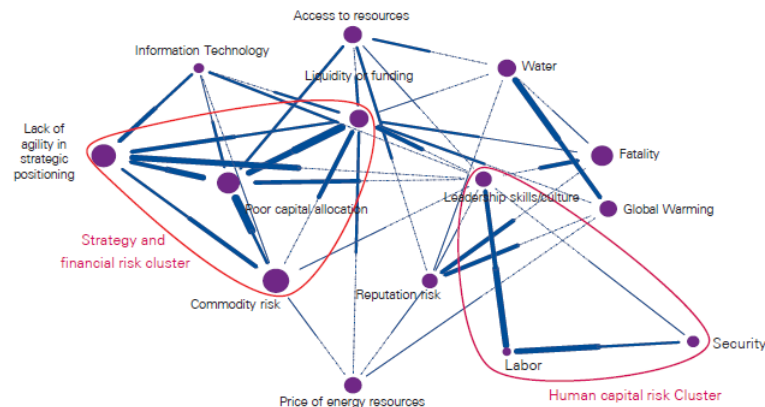


DYNAMIC RISK ASSESSMENT | Canadian Supply Chains

Understanding the change...



Understanding the impact...



Domino Effect

Risks in a cluster can be subject to the 'domino' effect whereby the aggregate of a risk cluster creates a 'high' or a 'very high' impact on an individual risk that may not previously be considered as 'high'

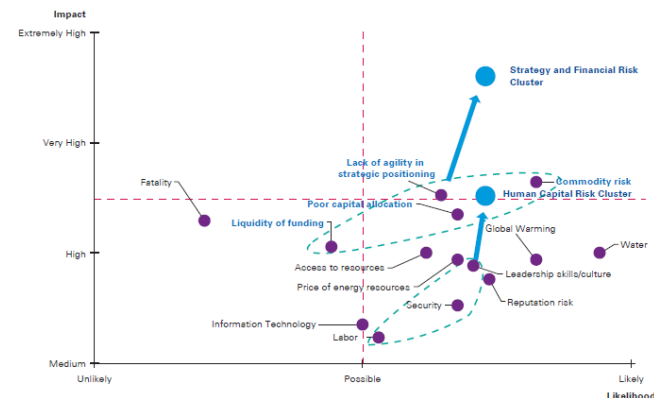
Understanding the risks clusters in the global supply chain will assist in targeting investment in strategic priorities for Canada

Interconnectedness

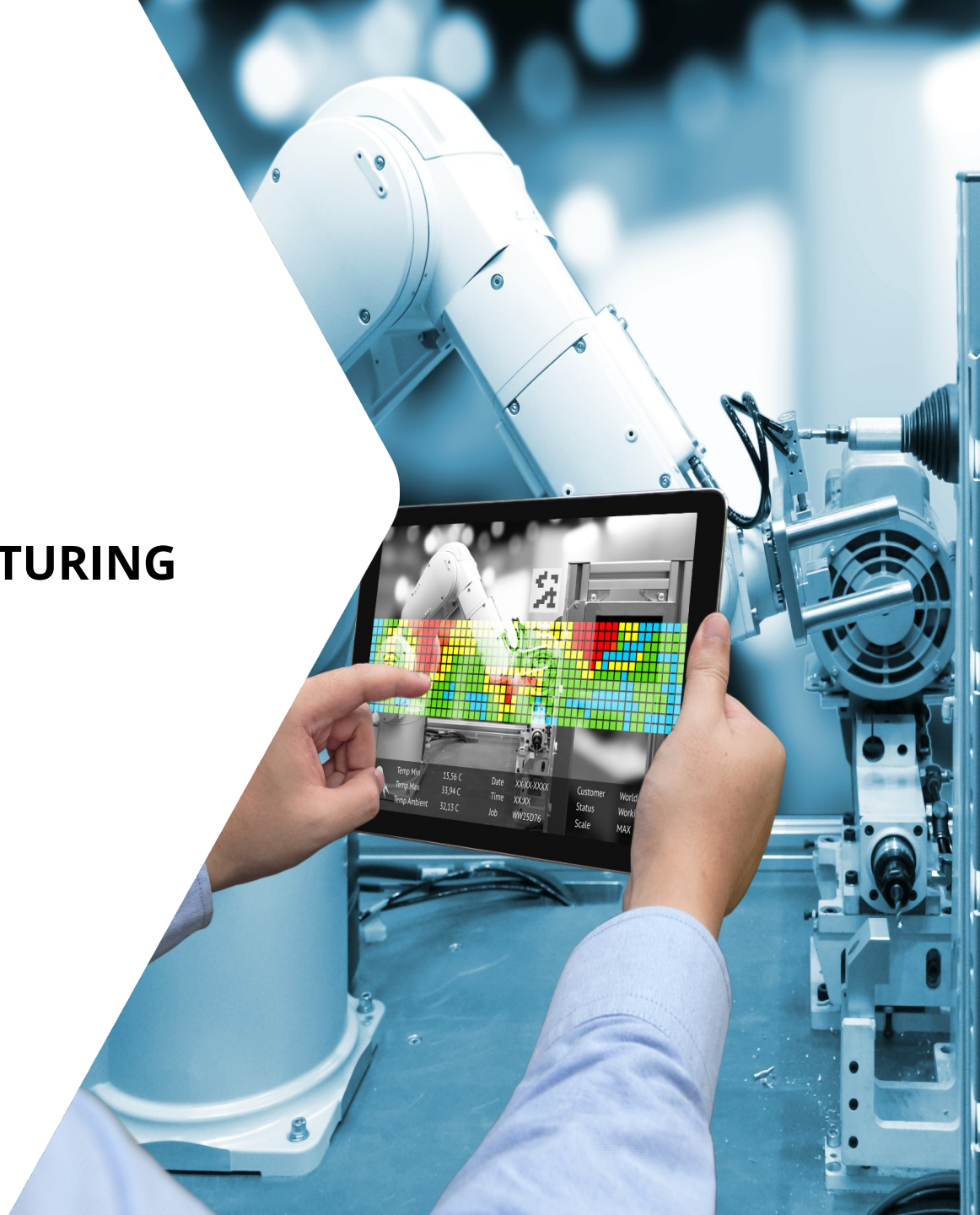
Interconnectedness illuminates an additional dimension and shows the impact that each risk has on other risks

Groups of strongly related risks are critical to understand as changes in market dynamics are seldom a result of a single risk event

Risks within a cluster are likely to trigger/make another risk more severe



ADVANCED MANUFACTURING



The background image is a blurred industrial scene. In the foreground, two robotic arms are visible, one of which is actively welding a metal component, creating a bright spark. In the background, a person is holding a tablet, likely monitoring the manufacturing process. The entire image has a blue and purple color overlay.

Advanced manufacturing represents a leading opportunity in the shift to **regionalization rather than globalization**

Opportunities Clusters

There are **two (2) potential opportunity** clusters for advanced manufacturing in Canada.

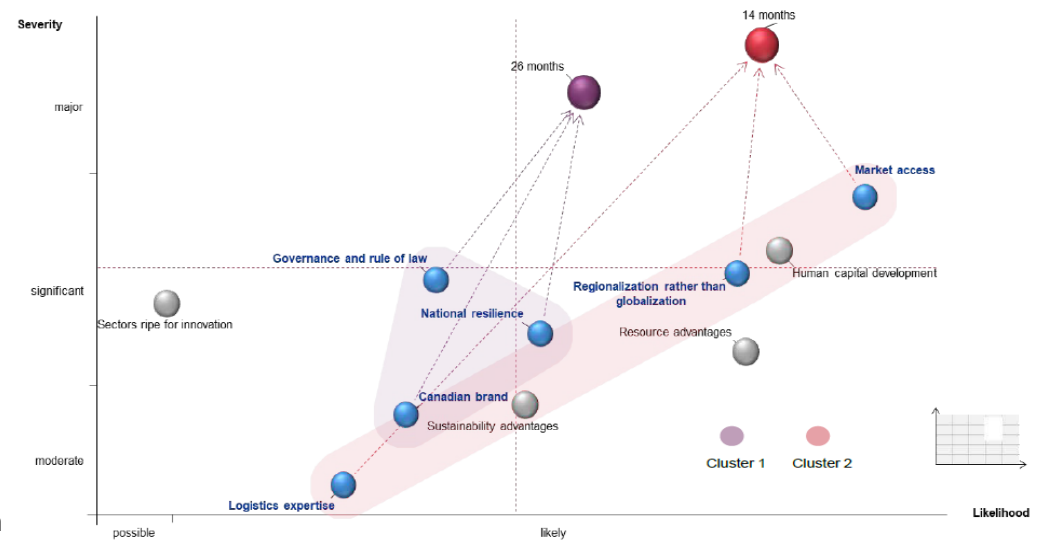
● Cluster 1 includes:

- Governance and rule of law;
- National resilience; and
- Canadian brand.

● Cluster 2 includes:

- Logistics expertise;
- Regionalization rather than globalization; and
- Market access.

Should these opportunities connect, **their collective velocity, and impact would be greater** than for each discrete opportunity.

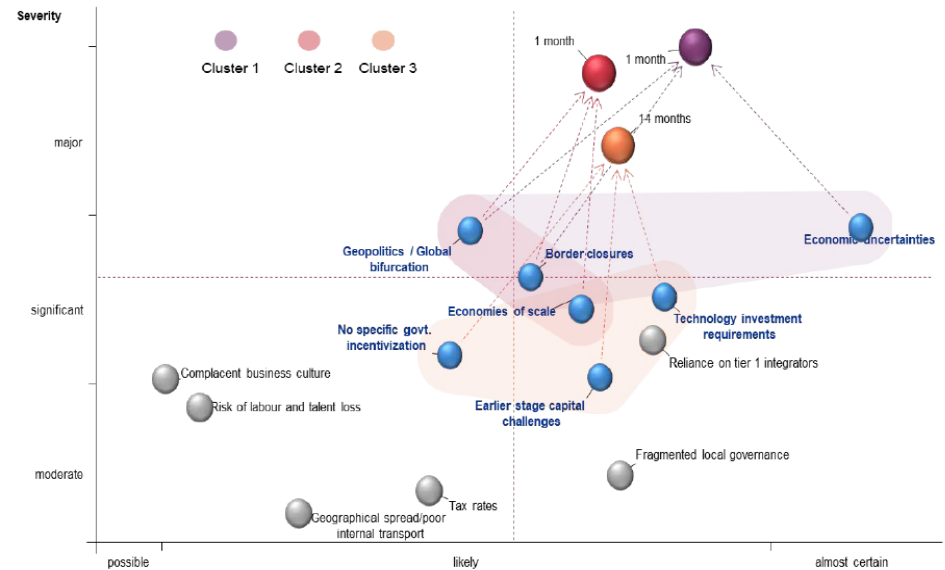


Risk Clusters

There are **three (3) potential risk** clusters for advanced manufacturing in Canada.

- Cluster 1 includes:
 - Geopolitics/global bifurcation;
 - Border closures; and
 - Economic uncertainties.
- Cluster 2 includes:
 - Geopolitics/global bifurcation;
 - Border closures; and
 - Economies of scale.
- Cluster 3 includes:
 - No specific government incentivization;
 - Earlier stage capital challenges; and
 - Technology investment requirements.

Should these risk connect, their **collective velocity, and impact would be greater** than for each discrete opportunity.

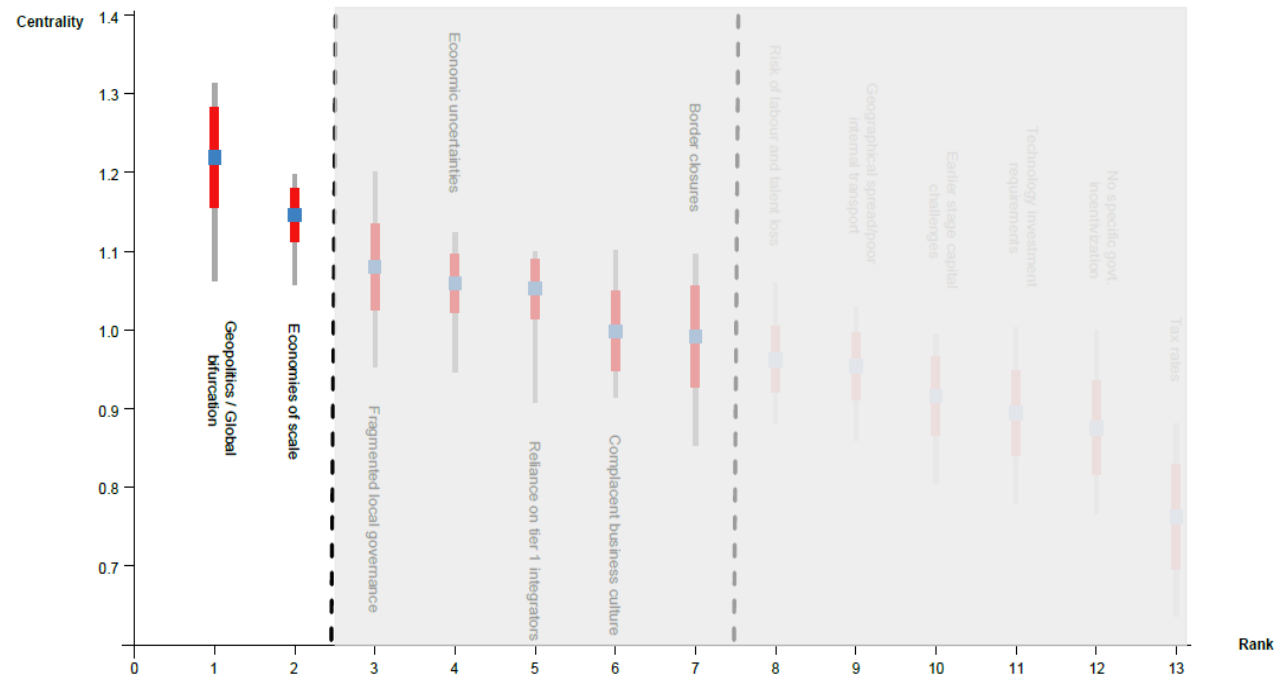


Risk Emitters

Certain discrete risks exhibit greater levels of expected contagion to other risks in the network.

As such, they represent the descending order in which each risk, from the highest flow-on, or systemic propagation, will trigger every other risk in the network - directly or indirectly.

The two discrete risks that pose that greatest potential threat to the advanced manufacturing network are **geopolitics/global bifurcation** and **economies of scale**.



Additional Sectors and Supply Chains

- ❖ Aviation sector
- ❖ Agricultural sector
- ❖ Clean technology supply chain
- ❖ Municipal sector

Thank you

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infrastructure@kpmg.com



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