



Project
Leaders

Port-Rail Synergy 2050: Futureproofing Infrastructure for Trade Growth and Climate Resilience

2025 APP Conference

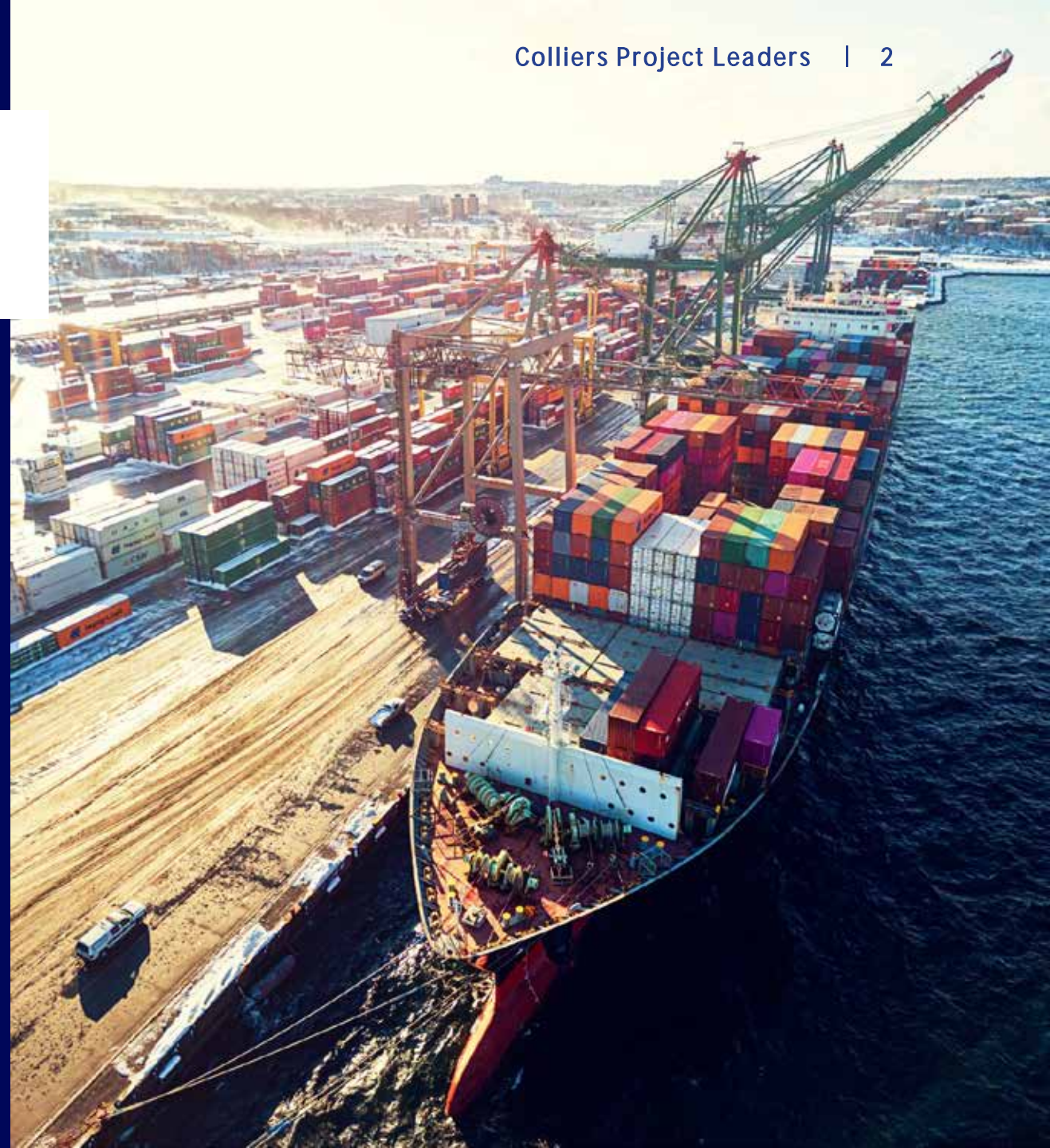
Date: August 12, 2025

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Agenda

- 01 Introduction
- 02 Pacific Port-Rail Overview
- 03 Challenges & Climate Impacts
- 04 Next Steps
- 05 Discussion / Q&A



Land Acknowledgement

Colliers Project Leaders has offices across Canada. We acknowledge that our work takes place within ancestral, traditional, treaty and unceded territories which continue to be home to many First Nations, Inuit and Métis people.

We continue to benefit from our presence on these lands and are committed to Reconciliation.

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Who we are



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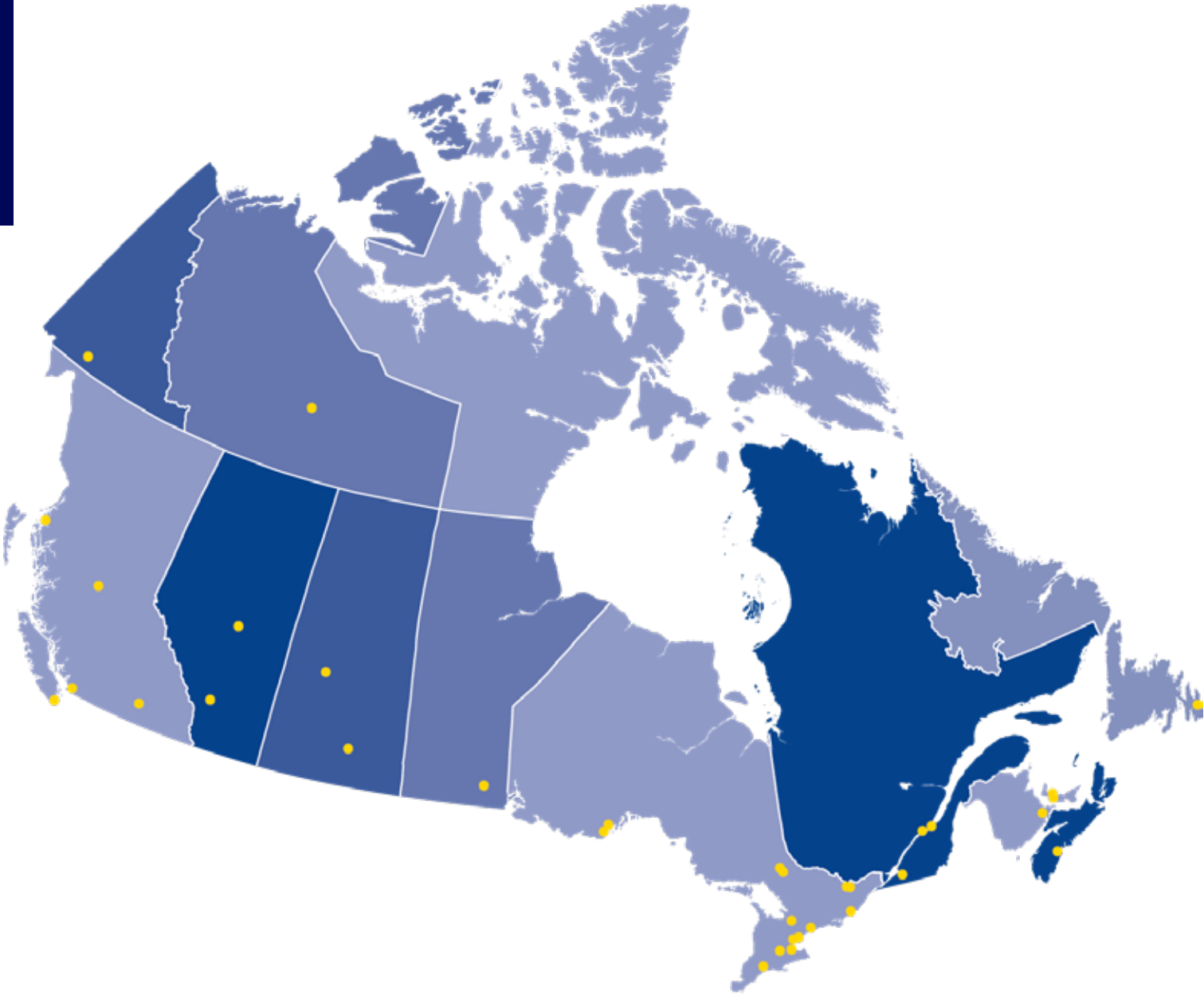
Where you are

30 offices
across Canada

18,000+
public and private
sector projects

ISO
9001:2015

35+
years of service



Pacific Port-Rail Overview

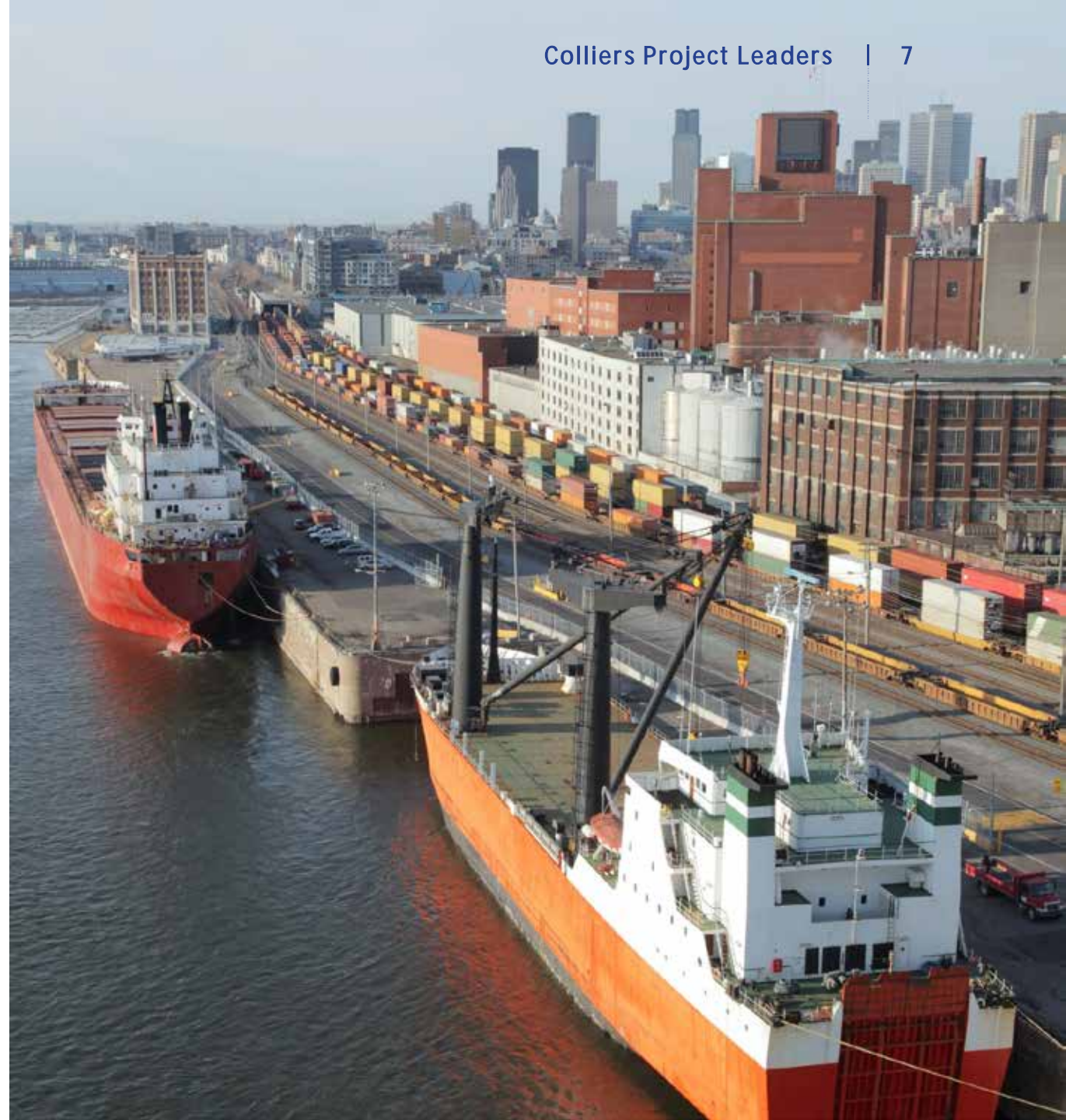
Why This Matters

- Pacific trade volumes expected to double by 2050
- Ports and rail must adapt to growing freight and climate volatility
- Infrastructure decisions today shape long-term outcomes

Overview

Pacific Port-Rail Ecosystem

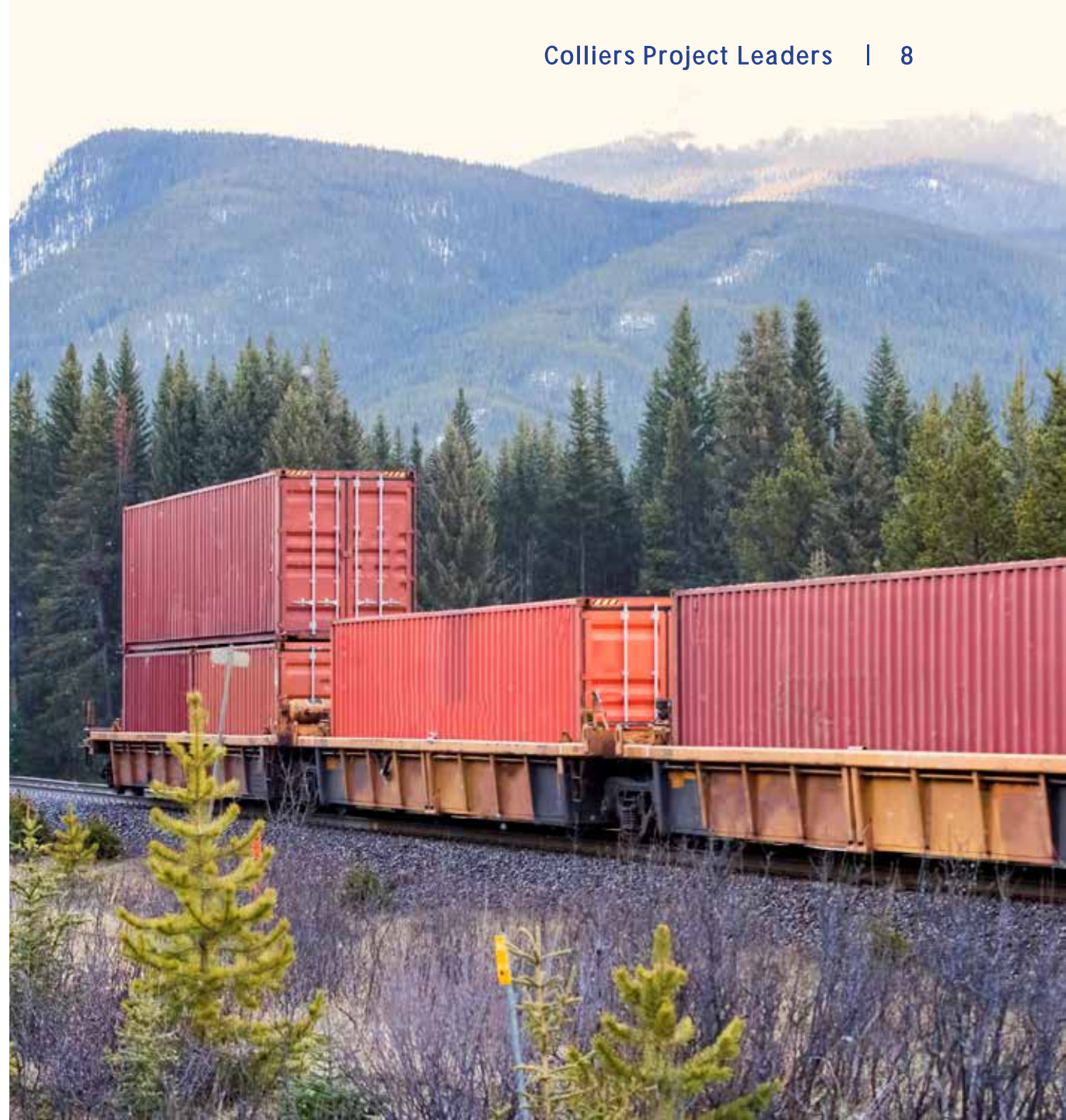
- Major Pacific ports: Seattle, Tacoma, Long Beach, Vancouver, Kaohsiung
- Key NA rail corridors: BNSF, Union Pacific, CPKC, CN
- Inland reach: Chicago, Dallas, Kansas City
- Port-rail interface is the backbone of North American trade



Overview

Growth Forecast to 2050

- TEU volumes projected to increase 2x-3x on Pacific routes
- Drivers: e-commerce, GDP growth, nearshoring, energy transition
- Large ports near full utilization



Overview

Changes in Growth

- Largescale adoption of AI, effects on consumer spending
- Emerging economies become the major consumers (55% of global consumption)
- Arctic opening
- Global changes to security - Globalization, Regionalization, and Fragmentation



Challenges & Climate Impacts

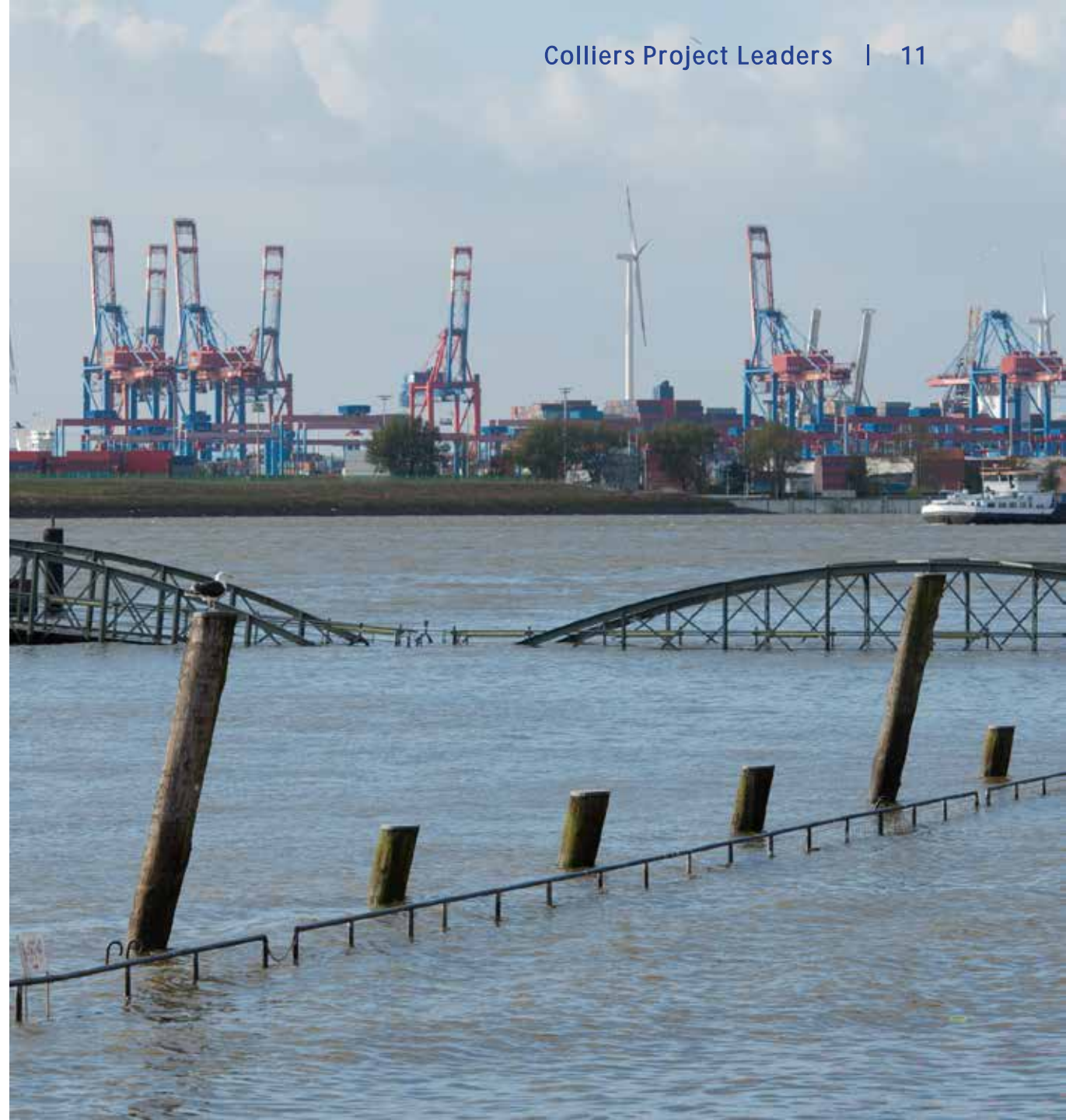
Capacity vs. Constraint

- Yard congestion, limited track capacity, urban encroachment
- 70%+ of delay costs occur within 50 km of ports
- Critical need for joint planning and infrastructure expansion

Challenges

Climate Impacts on Port-Rail Systems

- Heatwaves: speed restrictions on rail, fires
- Flooding and sea level rise: threat to terminals and tracks
- Example: California wildfires disrupting port access



Case Study:

Port of Long Beach

- On-dock rail investments to boost intermodal share to 35%
- Pier B Rail Project: expands capacity, reduces truck trips
- Climate planning includes elevation, storm surge mitigation (CRP)



Case Study:

Port of Vancouver

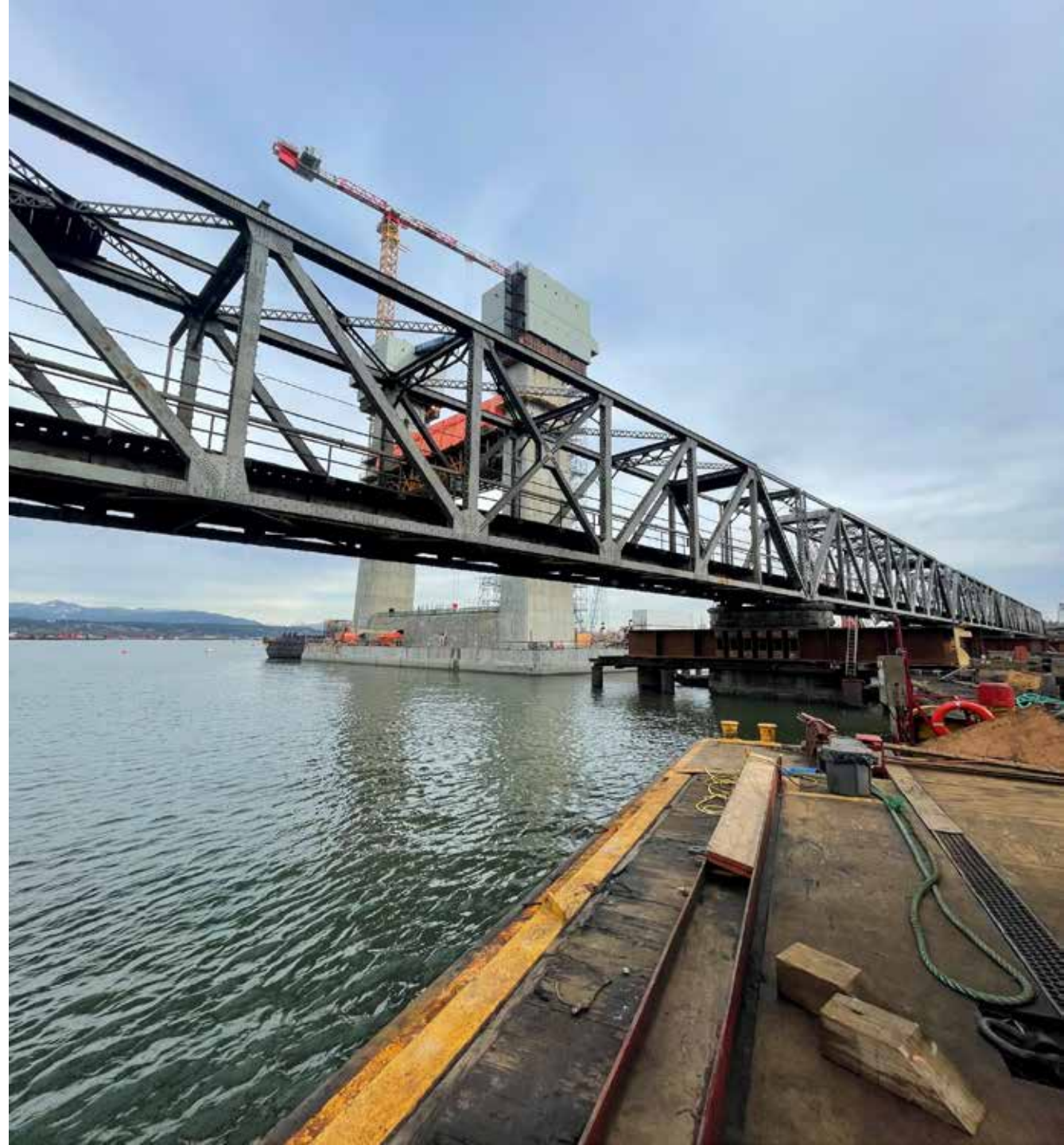
- Investment
 - Advancement of RBT2
 - Climate Adaptation Plan and investment
- Climate Change
 - 2021 Atmospheric River and associated impacts



Case Study:

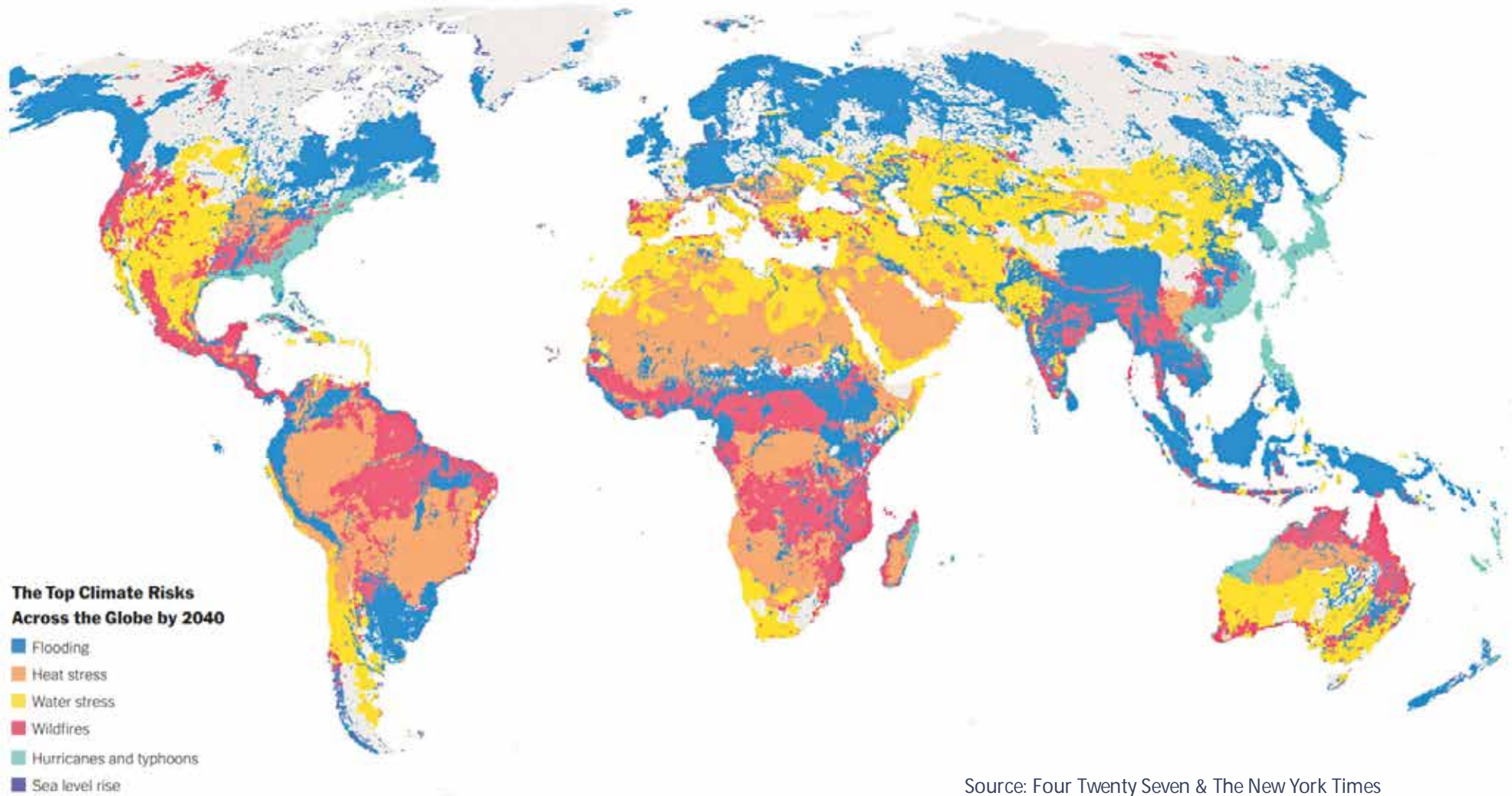
Rail Carriers

- Bridge redundancy and deep foundation work
- Capacity increase Western Canada and Lower Mainland



Major Pacific Ports

Top Climate Risks



Source: Four Twenty Seven & The New York Times

Next Steps

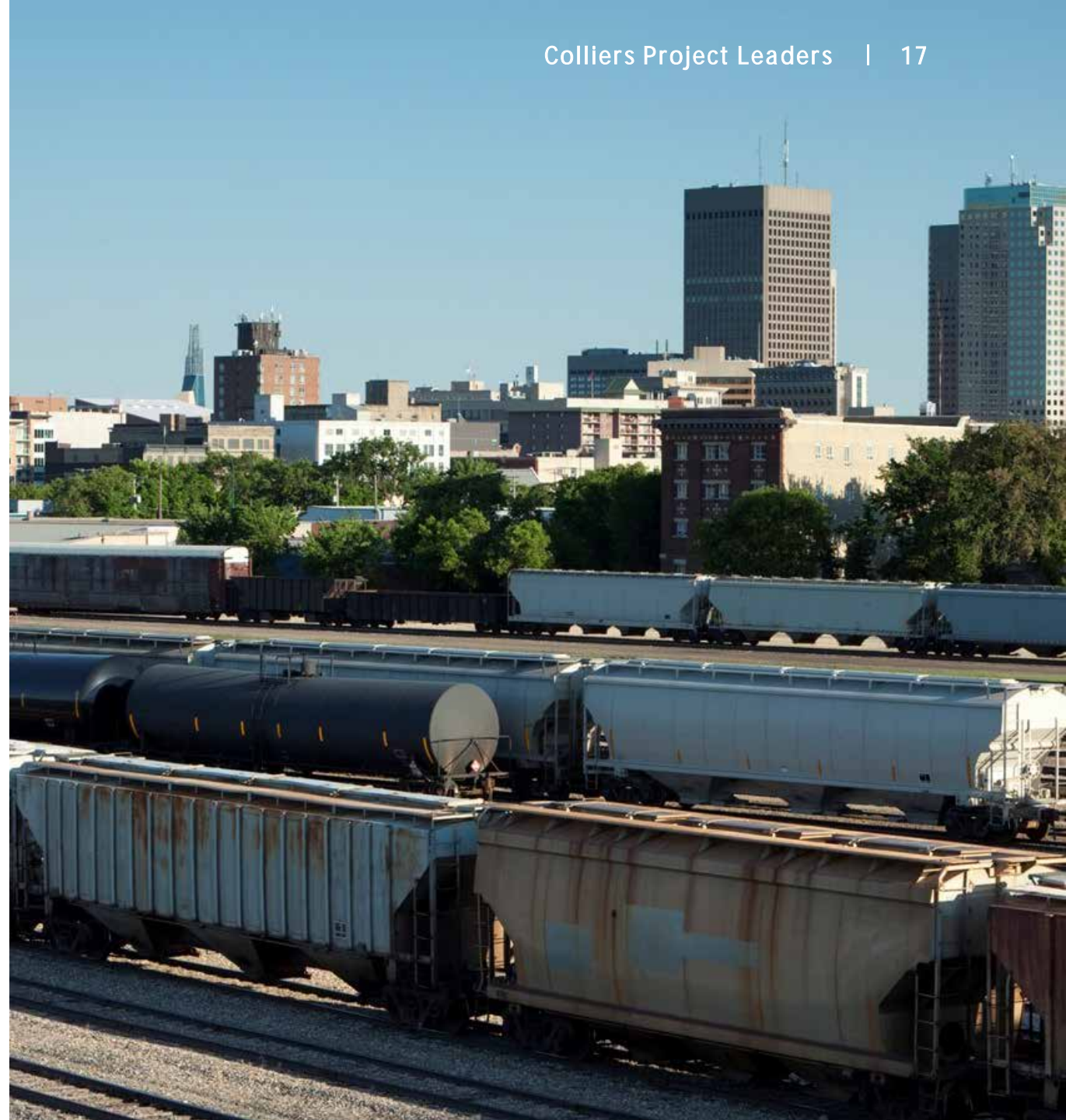
Futureproofing Strategies

- Integrated long-term port-rail master planning
- Design for resilience: elevation, redundancy, drainage
- Policy: harmonized permitting, infrastructure funding

Next Steps

Opportunities Ahead

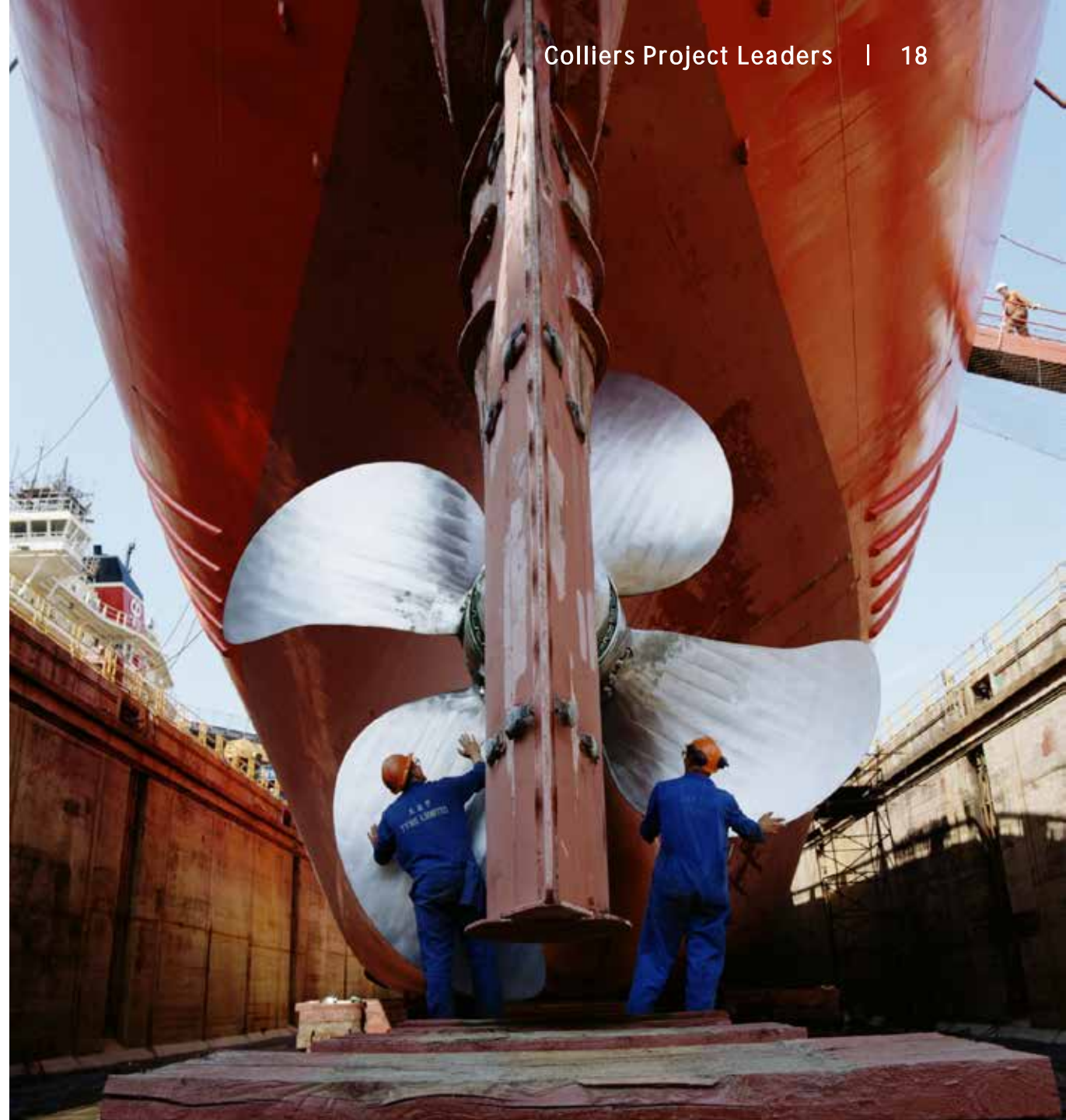
- Bilateral coordination along West Coast supply chain
- Increased infrastructure redundancy, long term investment
- Integration of information systems and intelligence through the supply chain
- First and last mile improvements between carriers and ports



Next Steps

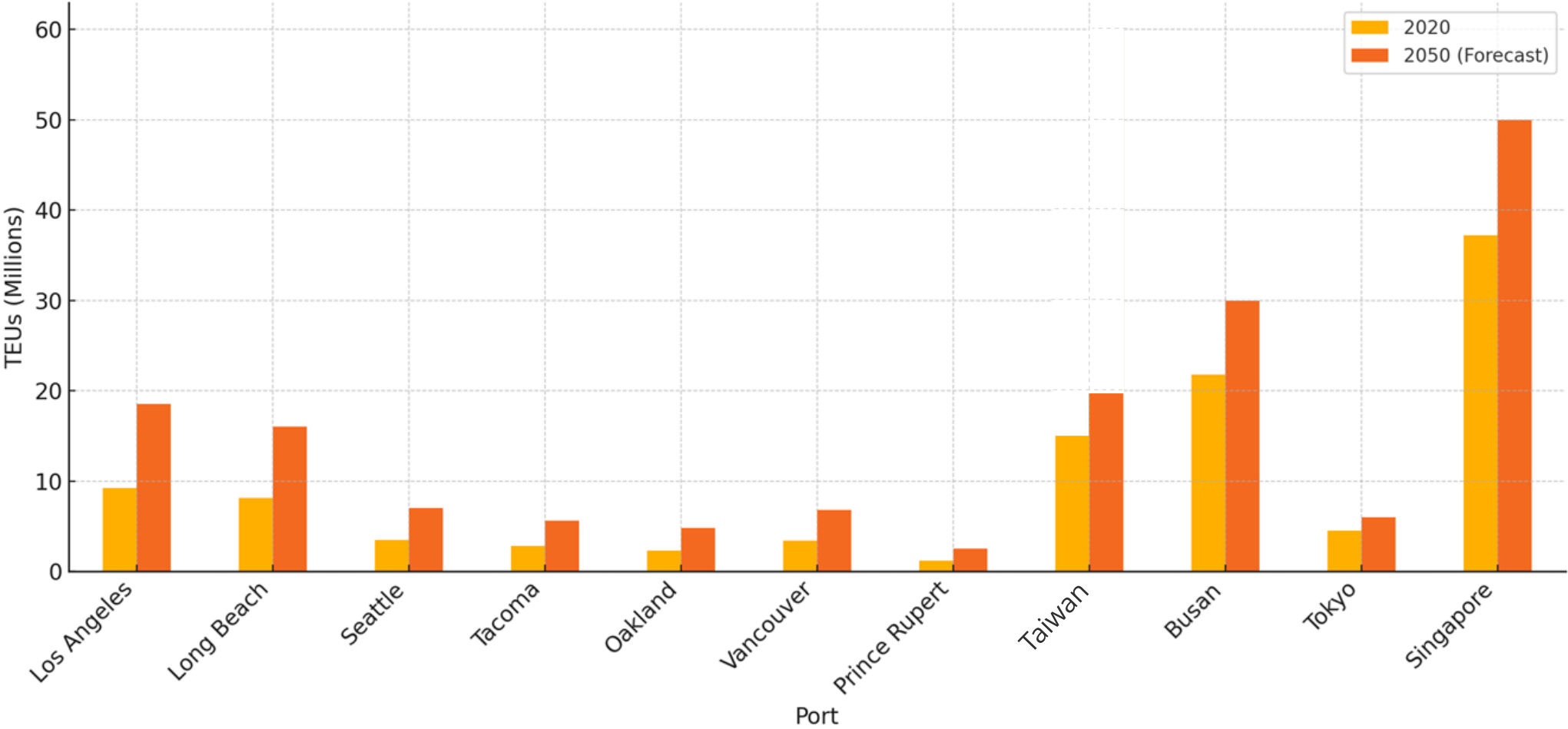
What Success Looks Like

- Resilient infrastructure that scales with trade growth
- Fewer disruptions from climate events, *faster recovery*
- Faster, cleaner, and more reliable freight movement



Major Pacific Ports

TEU Volume Forecast (2020 vs 2025)



Discussion

- What port-rail challenges are you seeing locally?
- Where do you see the biggest opportunities in the face of growth and climate change?



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Questions?



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Thank you

Contact me

Let's stay in
touch



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