Competitiveness & Sustainability in the Forest Sector

A comparison across international forest jurisdictions

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O'Kelly Acumen

BC COUNCIL OF FOREST INDUSTRIES

FORESTRY FOR THE PLANET.
FOREST PRODUCTS FOR THE WORLD.

Study objectives and approach

Objectives

1. Benchmark performance
2. Identify key strengths and weaknesses
3. Provide recommendations

Approach

Process

- **Analyze** forest sector performance
- **Survey** global industry leaders
- **Jointly develop** recommendations

Jurisdictions

- B.C., Canada Prairies, Canada East
- US Northwest, US South
- Sweden, Finland, Austria
- Brazil, New Zealand

Agenda

1. Forest sector performance
2. Conditions for success: Global leader survey
3. Opportunities for B.C. to improve

Forest sector performance was analysed using public data

Forest sector performance criteria

	Metric	Description	Units	Source
Economic outcomes	GDP growth	Annual growth in forest industry contribution to GDP (value added)	% p.a.[1] (real terms)	OECD, National statistics
	Employment growth	Growth in forest industry jobs	% p.a.	OECD, National statistics
	Productivity growth	Growth in forest industry productivity (Value-added per employee)	% p.a. (real terms)	OECD, National statistics
	Export growth	Growth in forest products export value	% p.a.	UN Comtrade
Growth catalysts	Capital investment	Gross fixed capital formation in forest industry, as share of output (revenue)	% of revenue	OECD, National statistics
	R&D spend	Research & development spend in forest industry, as share of output (revenue)	% of revenue	OECD, National statistics
Sustain-ability	Biodiversity	WWF risk ranking; average of pressure on biodiversity and socioeconomic factors	Risk ranking	WWF
	GHG emissions	Fossil CO_2 emissions (scope 1+2) in pulp, paper and paperboard manufacture	tCO_2/tonne[2]	National statistics

1. Per annum; 2. Tonnes of fossil carbon dioxide emissions per tonne of paper and paperboard production and market pulp export

B.C. lags peer regions in most dimensions of economic and sustainability performance

Strong | Average | Weak

Scorecard of forest sector performance 2013-23[1]

	Metric	B.C.	Other Canada	US	Swe-den	Finland	Austria	New Zealand	Chile	Brazil	Units
Economic outcomes	GDP growth	-3.6	0.3	0.6	0.5	-0.8	1.0	0.3	0.7	2.2	% p.a.[2] (real terms)
	Employment growth	-1.3	-0.2	-1.0	-0.3	-1.0	-0.6	-0.2	0.1	4.6	% p.a.
	Productivity growth	-2.3	0.6	1.4	0.9	0.1	1.6	0.5	0.6	-2.3	% p.a. (real terms)
	Export growth	-2.9	1.2	-0.3	-0.5	-1.3	0.0	-1.4	-0.3	4.1	% p.a.
Growth catalysts	Capital investment	4.0	3.6	7.8	8.0	5.2	6.1	3.2	6.0	8.5	% of revenue
	R&D spend	0.3	0.5	0.6	0.8	0.7	0.3	0.1	0.1	0.1	% of revenue
Sustain-ability	Biodiversity	2.5		3.6	2.1	2.3	2.3	3.1	3.2	3.5	Risk ranking
	P&P[3] GHG emissions	0.4	0.4	0.3	0.1	0.2	0.3	0.3	0.3	0.3	tCO_2/t pulp and paper[4]

1. Investment scores are average of all years available in period; Biodiversity ratings are for 2023, 2. Per annum; 3. Pulp and Paper mills only 4. Tonnes of fossil CO_2 emissions per tonne of paper and paperboard production and pulp export

Source: OECD; National statistics; UN Comtrade; WWF

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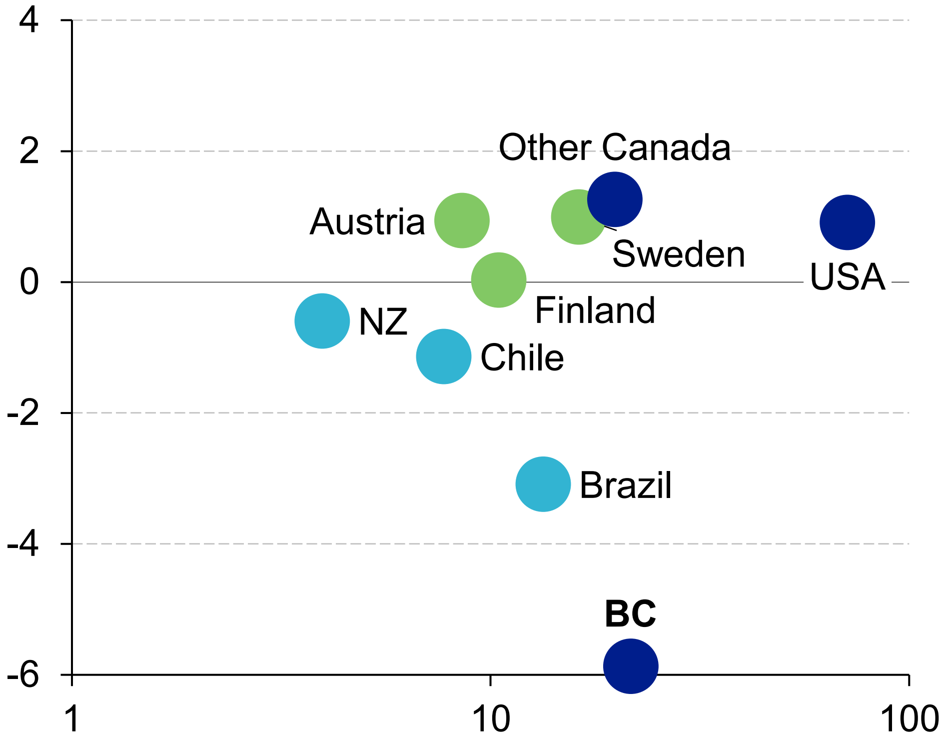
Lower wood supply has impacted growth of B.C.'s forest sector

Forest industry production in 2013-2023

NthAm Other Europe

Sawnwood (lumber)

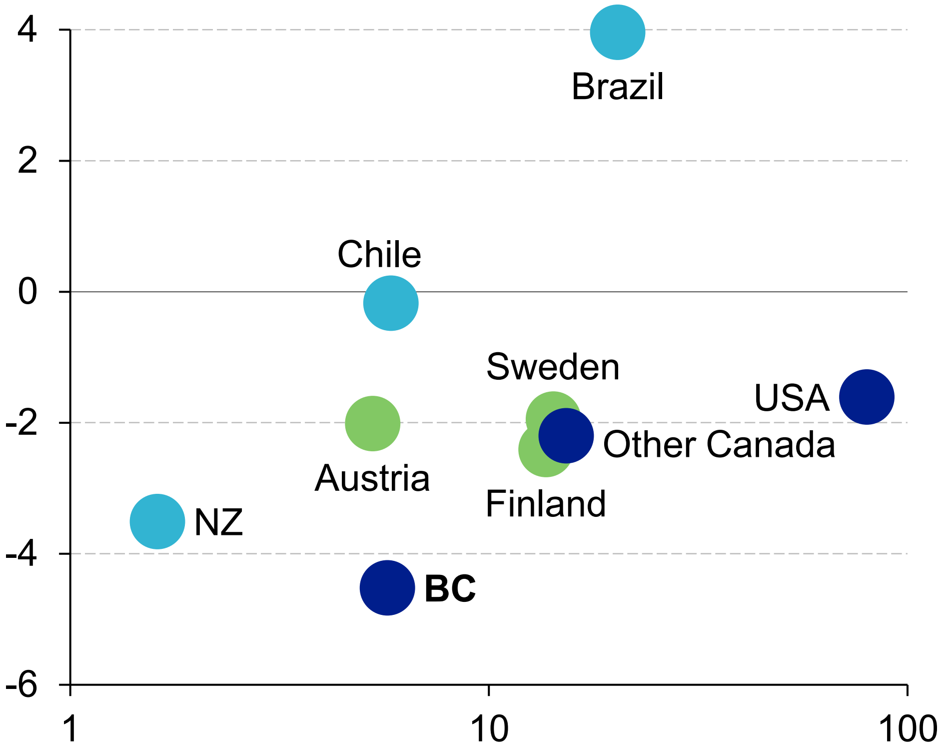
Annual growth 2013-23; Percent



Production in 2013 (log scale); Million m^3

Paper, paperboard and market pulp

Annual growth 2013-23; Percent



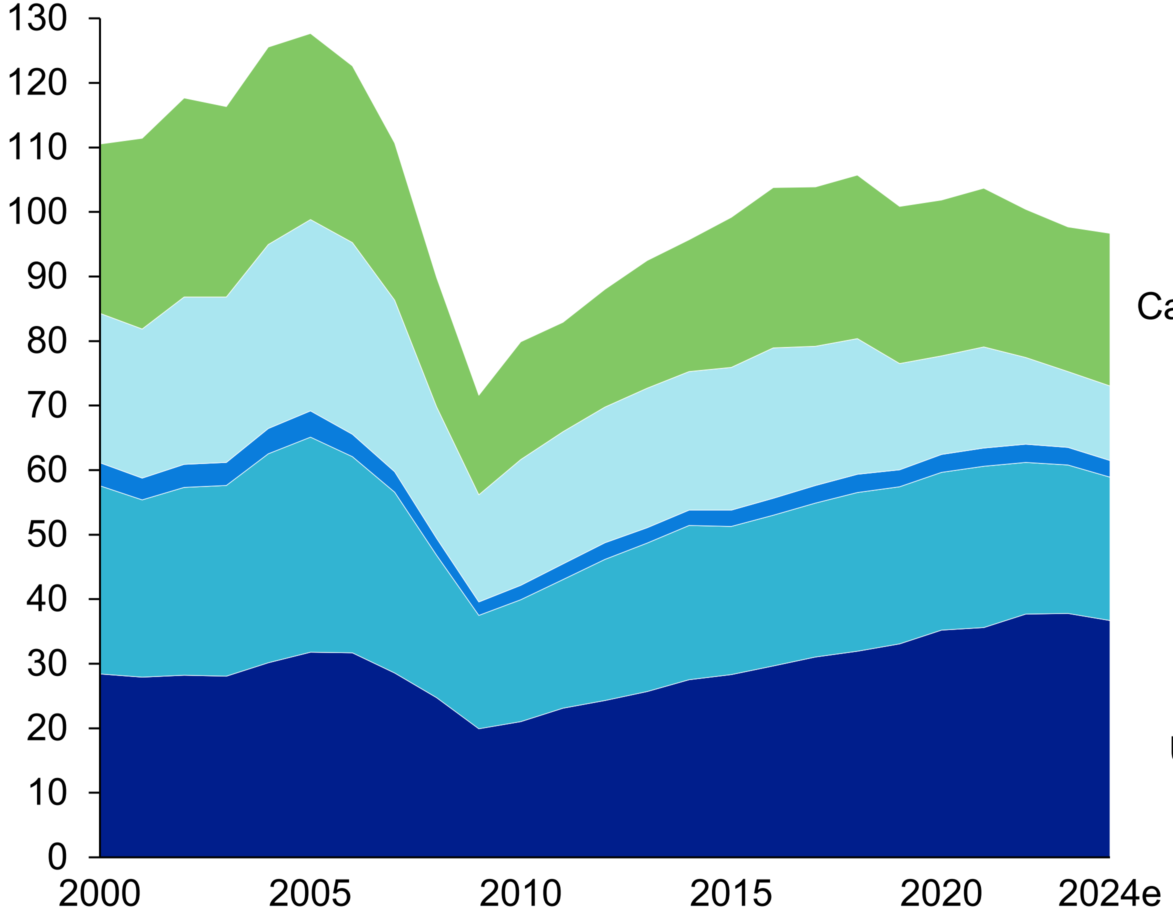
Production in 2013 (log scale); Million tonnes

- B.C.'s production of softwood lumber, as well as paper, paperboard and market pulp, have fallen by 5-6% per year in 2013-23
- This is in line with the decline in wood supply (harvests) in B.C.

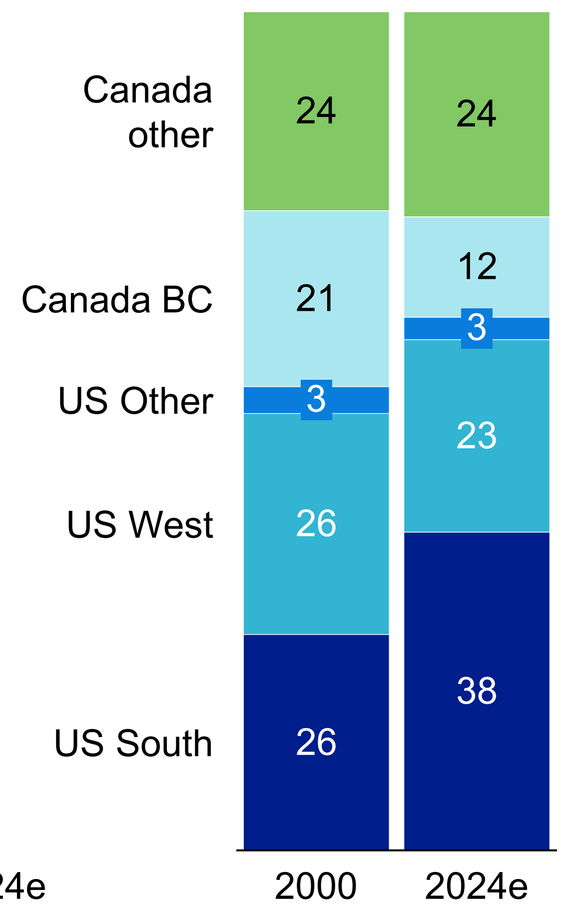
Source: UN FAOSTAT; B.C. Government; StatCan; WWPA

US South is the fastest-growing lumber region in North America due to investment in sawmill capacity

North American softwood lumber production; Million m^3



Regional share
Percent

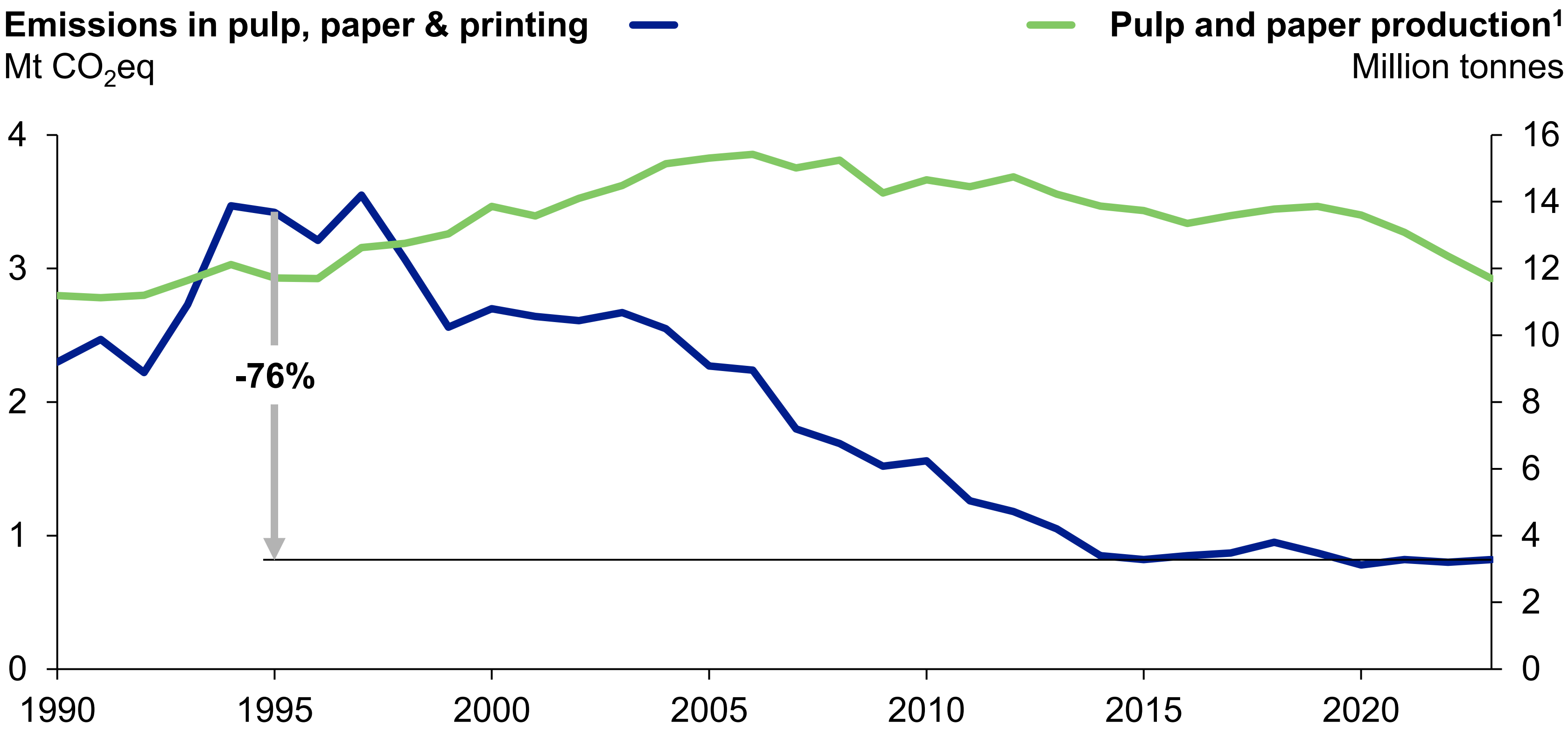


- The US South softwood lumber industry has grown from 26% of North American production in 2000 to 38% in 2024.
- Large investment has been made in expanding capacity.
- It is the only region in North America to have grown during this period.
- B.C. and US West have contracted significantly both in share and volume of lumber production.

Source: StatCan; WWPA; FAOSTAT; O'Kelly Acumen

Sweden has reduced pulp & paper sector emissions by three quarters, while maintaining production

Greenhouse gas emissions development in Swedish pulp and paper industry



Emissions intensity in pulp and paper manufacture[2]; kg CO_2eq / tonne

206 → 292 → 195 → 148 → 106 → 60 → 57

1. Paper and paperboard production + market pulp export; 2. Assuming printing sector emissions are negligible

- Between 1995 and 2023, Sweden's GHG emissions from the pulp and paper sector fell by 76%.
- Production of pulp, paper and paperboard was the same in 1995 and 2023, at ~12 million tonnes.
- Emissions intensity fell from ~300 to ~60 kg CO_2eq / tonne.
- This was achieved through a combination of energy efficiency and transition to renewable fuels, mainly biomass.

Source: Swedish Environmental Protection Agency; FAOSTAT; O'Kelly Acumen

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Survey: Perceptions of competitiveness

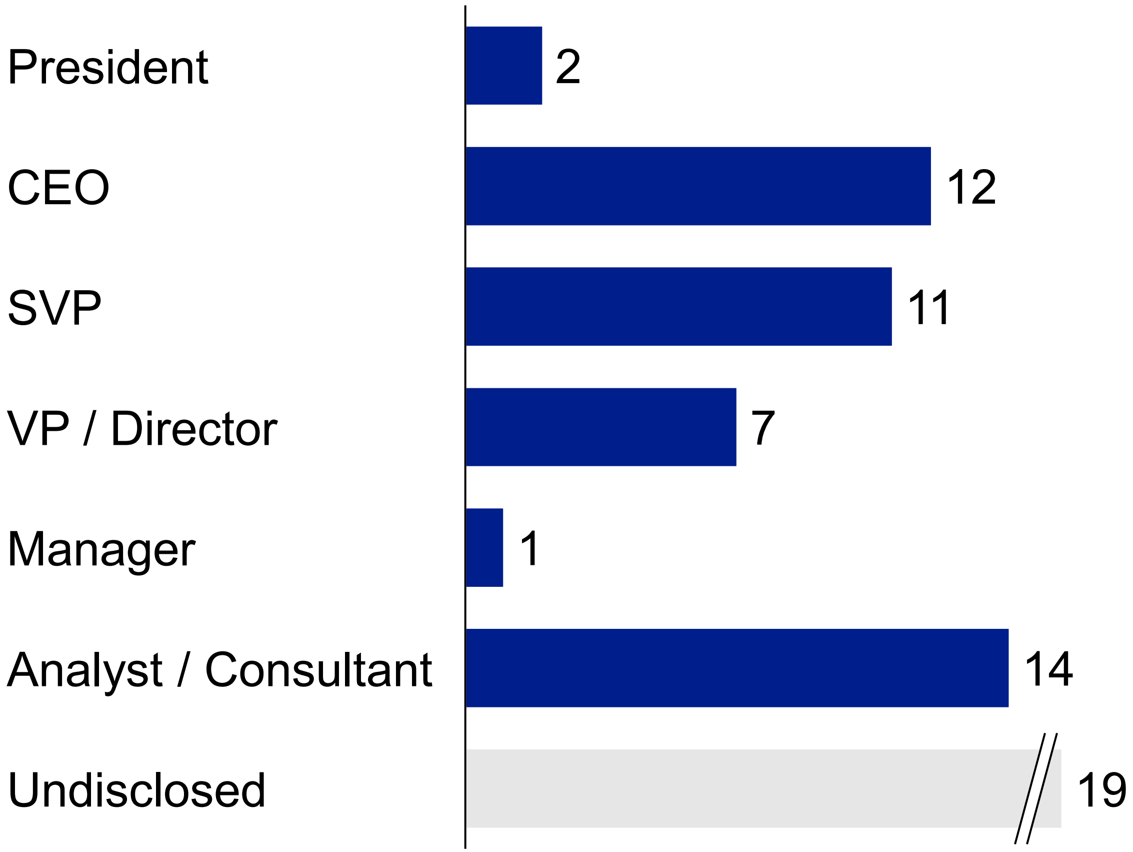
Competitiveness factors

Resources	• Security of **wood supply** • Quality and reliability of **transport infrastructure**
Talent	• Availability and cost of **skilled labour** • Compelling **sustainability narrative** to attract talent
Innovation	• Effectiveness of **R&D ecosystem**
Policy	• Competitiveness of **taxation system** • International credibility of **environmental policies**
Finance	• Overall **attractiveness for forest industry investments**

Survey participants

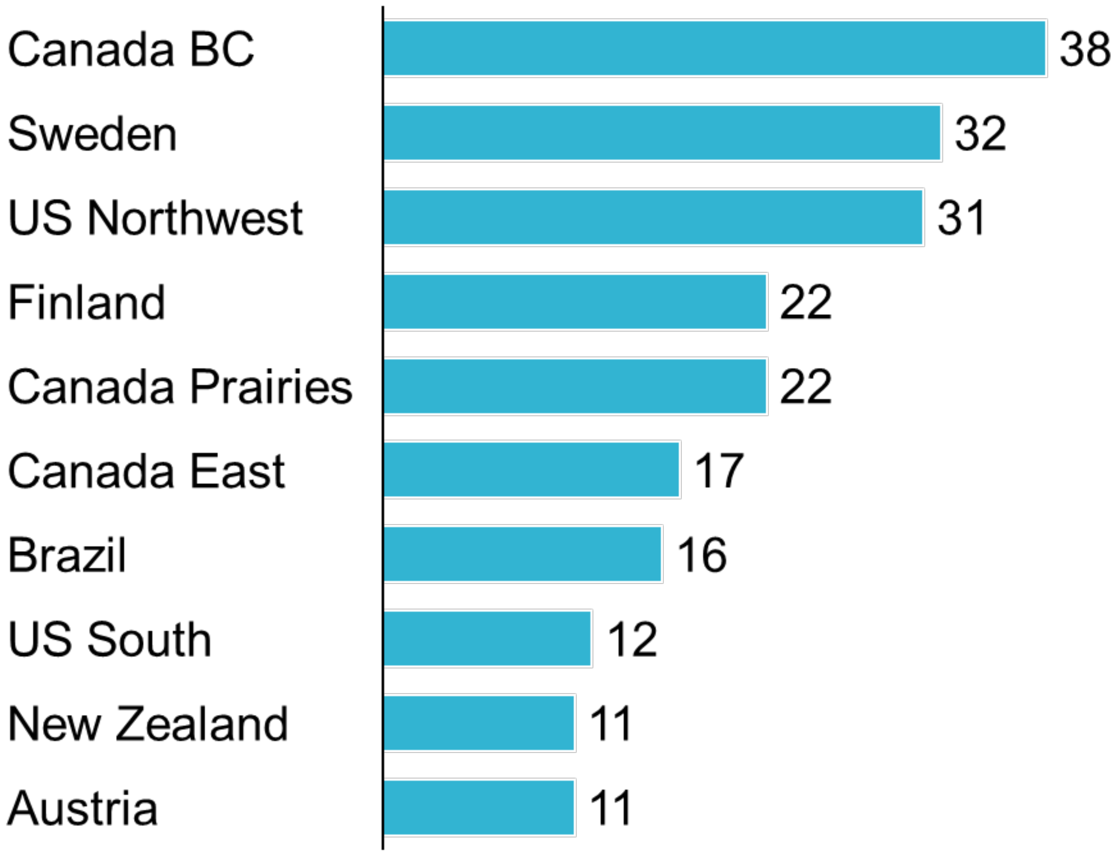
Participants' role

participants



Regional ratings

ratings



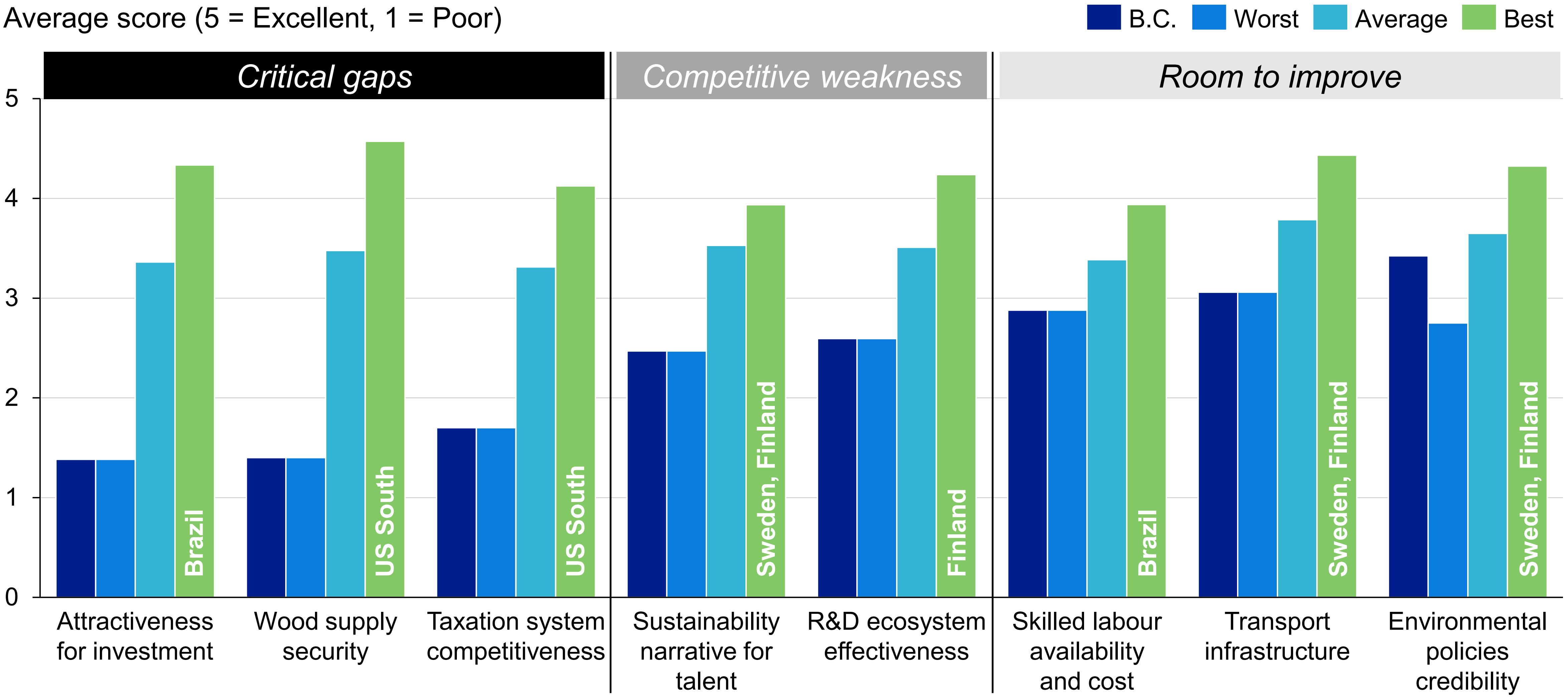
The survey results also help identify which peers can provide inspiration for B.C. in different areas

Perceptions of forest industry conditions; Average score (5 = Excellent, 1 = Poor)

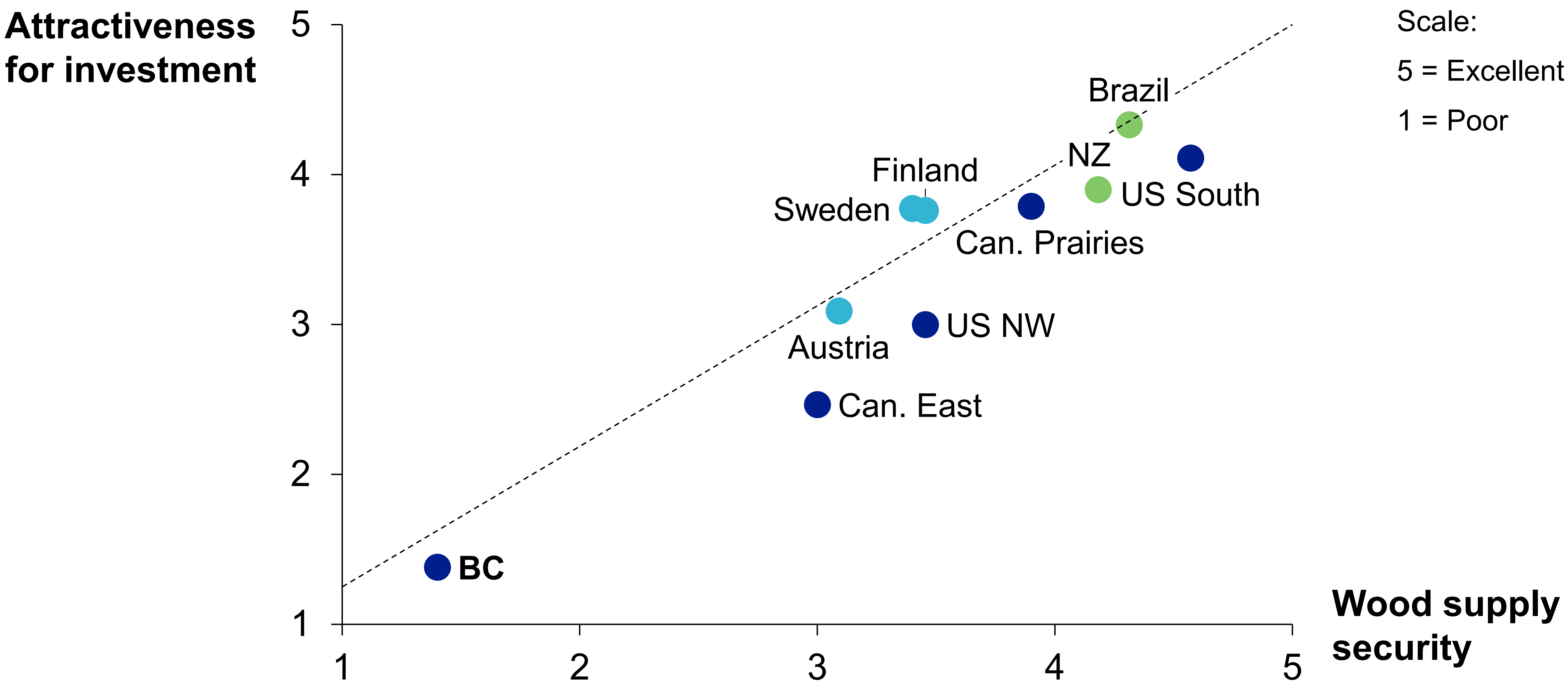
Strong | Average | Weak

Competitiveness factors		B.C.	Canada Prairies	Canada East	US South	US Pac NWest	Sweden	Finland	Austria	Brazil	NZ
Resources	**Wood supply** security	1.4	3.9	3.0	4.6	3.5	3.4	3.5	3.1	4.4	4.2
	Transport infrastructure quality and reliability	3.1	3.5	3.4	4.2	4.2	4.4	4.4	3.8	3.3	3.7
Education & talent	**Skilled labour** availability and cost	2.9	3.8	3.3	3.0	3.3	3.7	3.8	2.9	4.1	3.3
	Sustainability narrative for attracting talent	2.5	3.9	3.3	3.3	3.3	3.9	3.9	3.7	3.5	3.9
Innovation	**R&D ecosystem** effectiveness	2.6	3.6	3.0	3.2	3.2	4.1	4.2	3.7	3.8	3.6
Policy	**Taxation system** competitiveness	1.7	3.6	2.8	4.1	3.5	3.5	3.5	3.6	3.3	3.6
	Environmental policies' international credibility	3.4	3.8	3.5	3.1	3.4	4.3	4.3	3.9	2.7	4.0
Finance	**Attractiveness for investment** in forest industry	1.4	3.8	2.5	4.1	3.0	3.8	3.8	3.1	4.4	3.9

Conditions for the forest industry in B.C. are perceived as poor



Investment attractiveness is highly correlated with wood supply security



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Opportunities to strengthen the B.C. forest industry

Critical gaps

Wood supply security

- Working forests
- First Nations transfer
- Evergreen provisions
- BCTS reform
- First Nations revenue sharing
- Thinning
- Permitting process
- Regulatory pace

Attractiveness for investment

- Regulatory certainty

Tax system competitiveness

- Investigation
- Lumber trade dispute

Competitive weakness

Sustainability narrative for talent

- Marketing to students
- Early education
- Government communications

R&D ecosystem effectiveness

- Joint funding approach
- Collaboration

Room to improve

Skilled labour availability and cost

- Technical training
- University access

Transport infrastructure quality and reliability

- Rail network
- Smart logistics

Environmental policies' credibility

- Science-based approach
- Carbon tax
- Bio-energy transition

Contact details

BC Council of Forest Industries

Kurt Niquidet
Vice President & Chief Economist
E-mail: niquidet@cofi.org