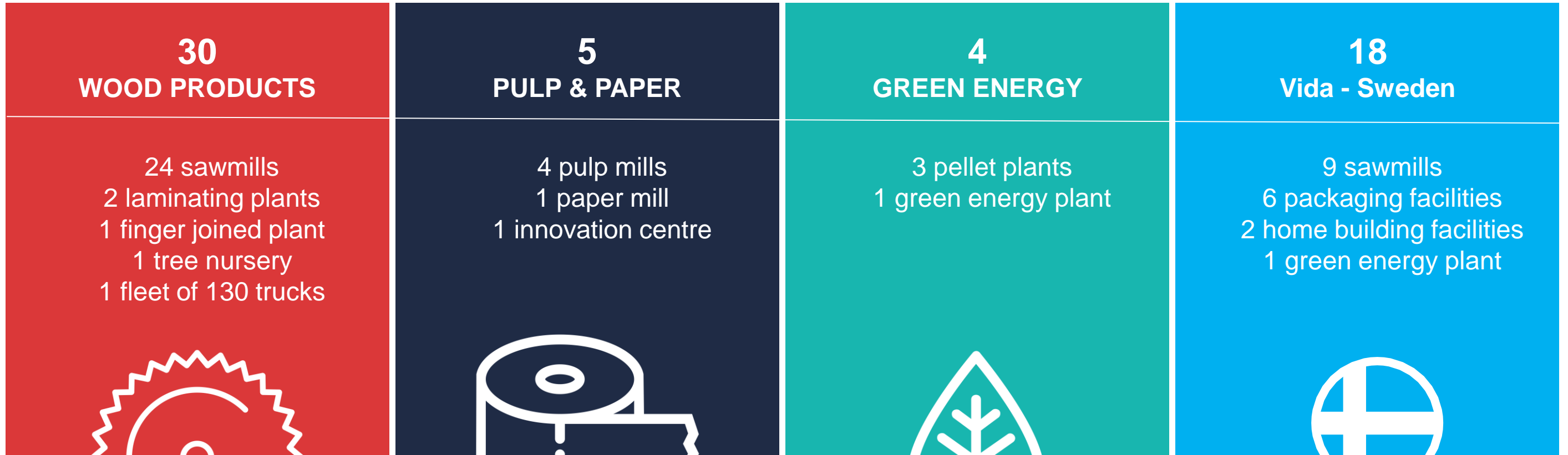


A Global Perspective: Opportunities & Challenges in the Forest Industry



February 2020

Canfor Operations



57
Canfor
Operations


6,700
GLOBAL
EMPLOYEES



Production Capacity & Sales

Lumber Capacity
13 million m3

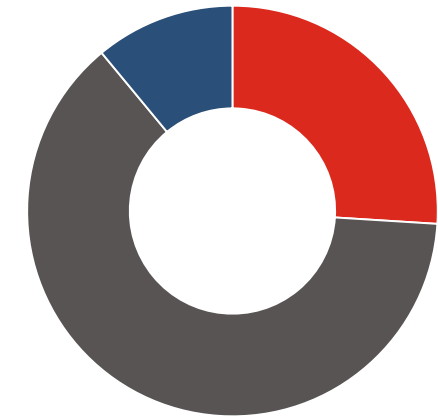
Pulp/Paper Capacity
1.5 million tonnes

2018 Pulp Sales
\$1.4 Billion

■ Americas

■ Asia

■ Europe



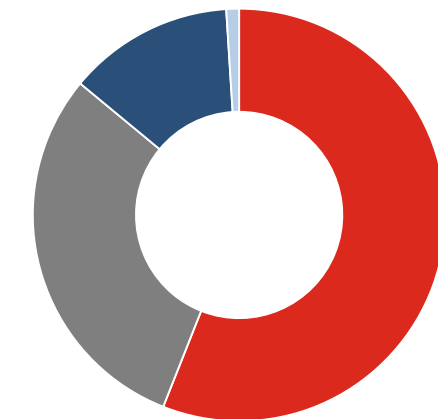
2018 Lumber Sales
\$3.7 Billion

■ United States

■ Asia

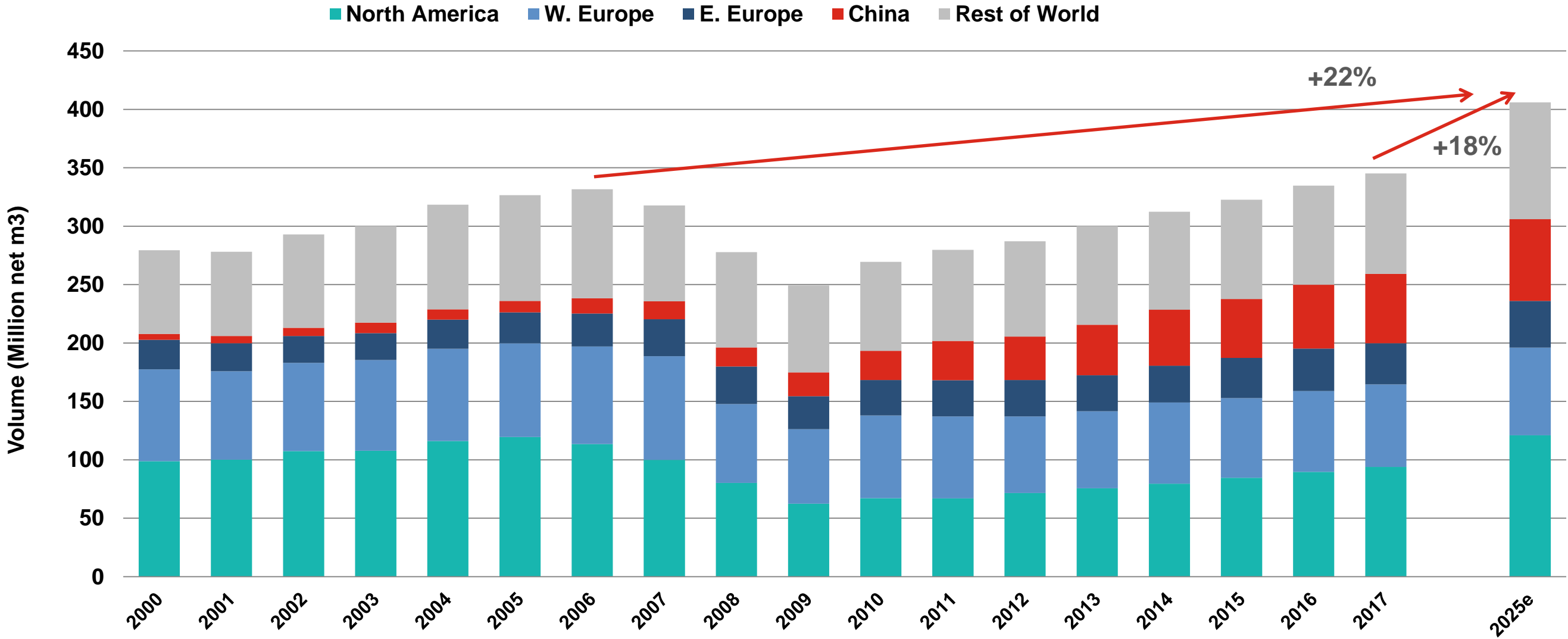
■ Canada

■ Other



Global Softwood Lumber Demand

Sawn timber demand is predicted to grow by 61 million m³ from 2017 to 2025 and exceed the peak levels of 2006 by 75 million m³



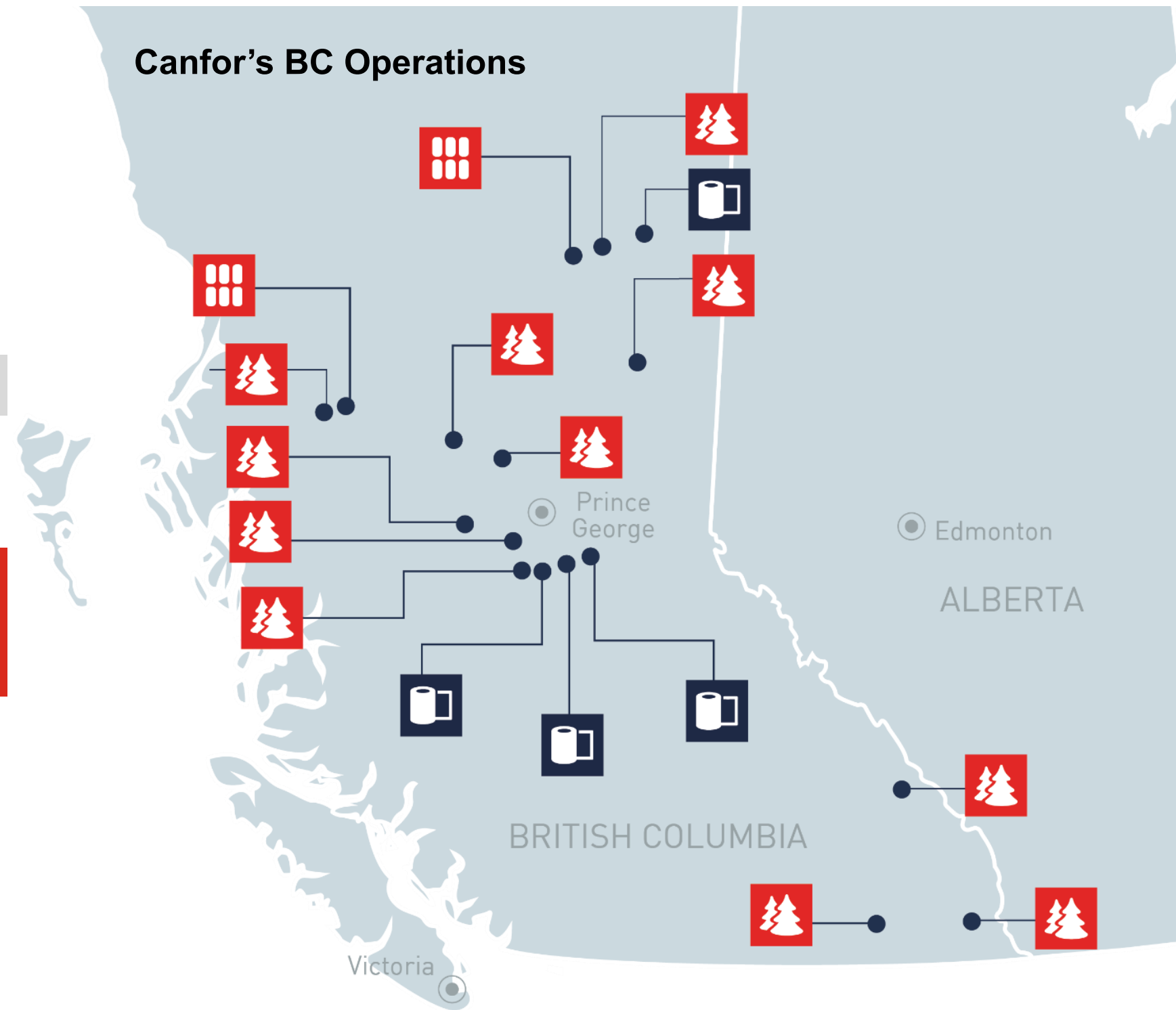
Source: TIMWOOD



Operating Challenges in British Columbia

BC Lumber Production (Million m3)

	2019	2018	%chg.
Canfor	6.1	8.4	-27%
Total British Columbia	23.1	29.2	-21%



An aerial photograph of a vast forest. The majority of the trees are brown, indicating they have been killed by a pine beetle epidemic. There are several distinct patches of green trees, representing healthy forest stands. The forest extends to the horizon under a clear sky.

BC's Mountain Pine Beetle Epidemic

Mountain Pine Beetle Impacts

Disastrous effects of the Pine Beetle Epidemic



Pine Beetles have caused the devastation of **18 MILLION HECTARES** of BC forests



CO2 released by these trees equals the yearly emissions of **3.7 million cars on the road**



\$3 billion
The pine beetle's economic impact to the BC forestry industry, as of 2006

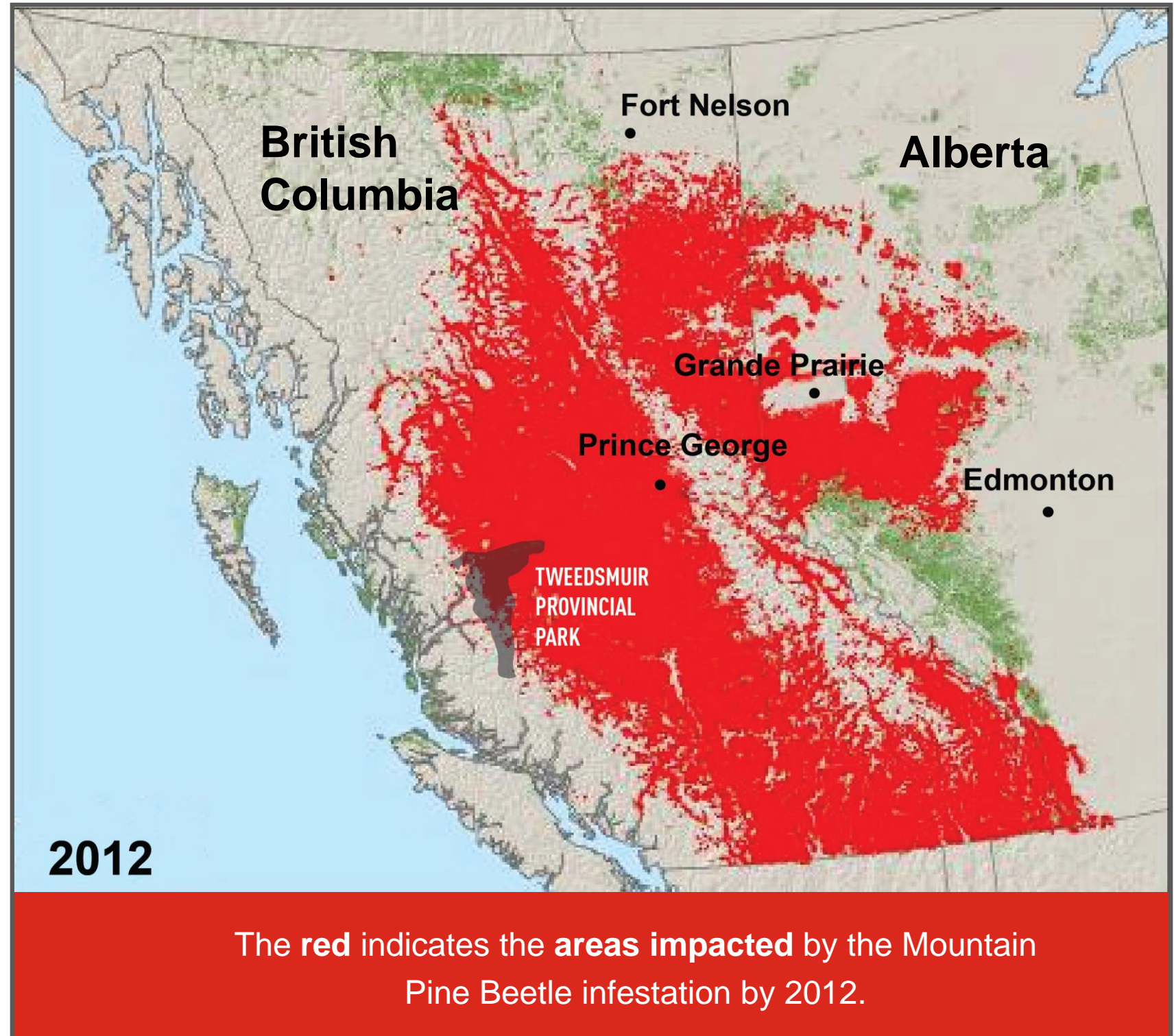


That's equal to the area of **1.3 MILLION** football fields



Expansive Infestation

- Tweedsmuir Provincial Park was the epicentre of the infestation starting in the mid 1990s
- In 2006 the Ministry of Forests initially predicted that 80% of the merchantable pine in the province's central and southern Interior could be killed by 2013.
- Over **18.3 million hectares of lodgepole pine forest has been impacted** in BC.



An aerial photograph of a forest showing the aftermath of a fire. The majority of the trees are dead, appearing as thin, vertical, charred trunks. There are patches of green, indicating new growth or surviving trees. The ground is dark and uneven, with some rocks visible. The overall scene is one of a recovering but still largely desolate landscape.

Lessons Learned

Lessons Learned

1. Don't Wait to Take Action

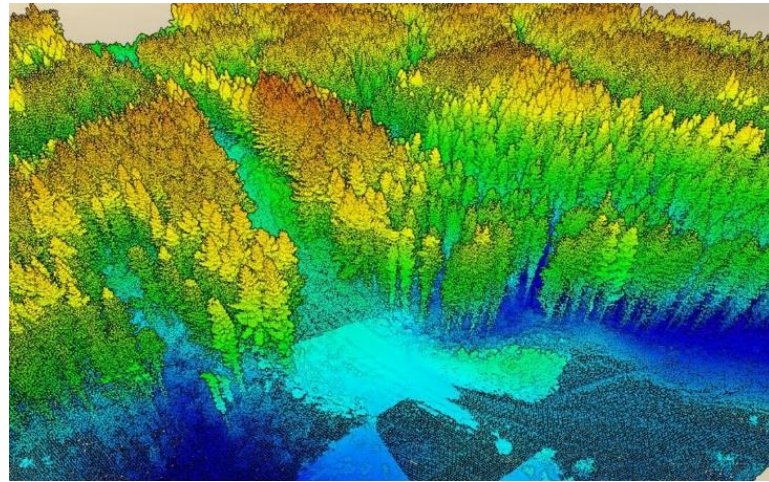
- Early intervention could have significantly reduced the spread of the infestation.
- Selective harvesting was ineffective
- Climate change was one of the major contributing factors to the infestation.
- Pine beetle wood had an economic sawlog shelf-life of about 15 years.



Tunnels in a tree from Pine Beetle Infestation

Lessons Learned

2. Invest in Detection and Monitoring



Using technology such as **LiDAR and satellite imagery** was useful in detection.



Partnership with industry to conduct a risk rating to identify pine stands that were the most susceptible and/or would incur the most damage if infested.



Walk the forest and conduct aerial surveys, which was one of the most effective monitoring tools.

Lessons Learned

3. Coordination & Communication Between Government & Industry is Critical

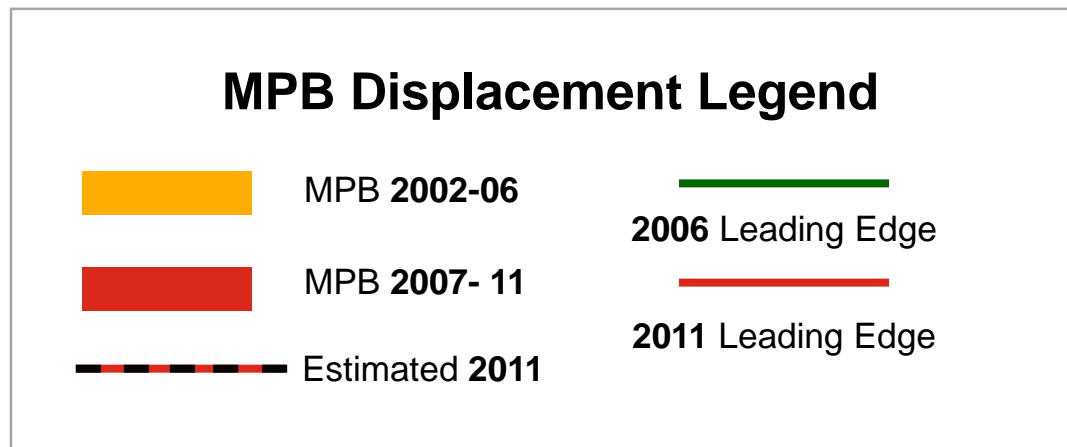
- 95% of the forests in British Columbia are publicly owned.
- Government initially resisted taking any measures to prevent the spread of the infestation.
- Government started to increase the annual allowable cut in 2001, but it wasn't until 2003 when it increased significantly.



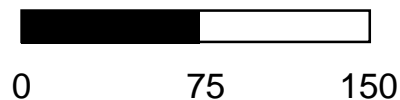
Lessons Learned

4. Beetles Don't Respect Borders

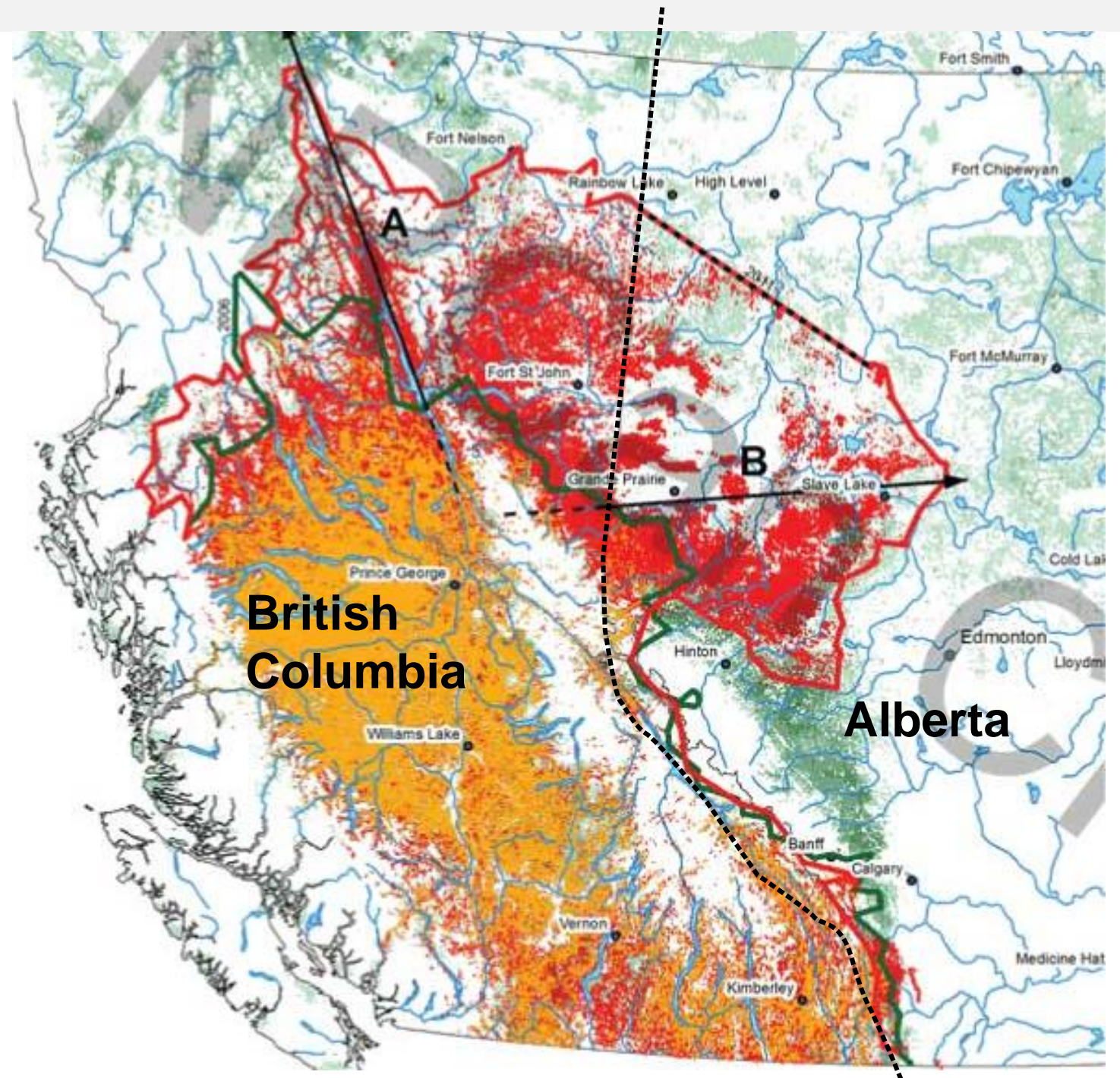
In 2006 the Mountain Pine Beetle infestation started to **spread into Alberta**, the province to the east of British Columbia.



Kilometers



Spread of the mountain pine beetle in British Columbia and Alberta from 2002-2006 (yellow) to 2007-2011 (red).



Lessons Learned

5. Crisis Sparks Innovation

Everything about our business changed – from processing to customers.

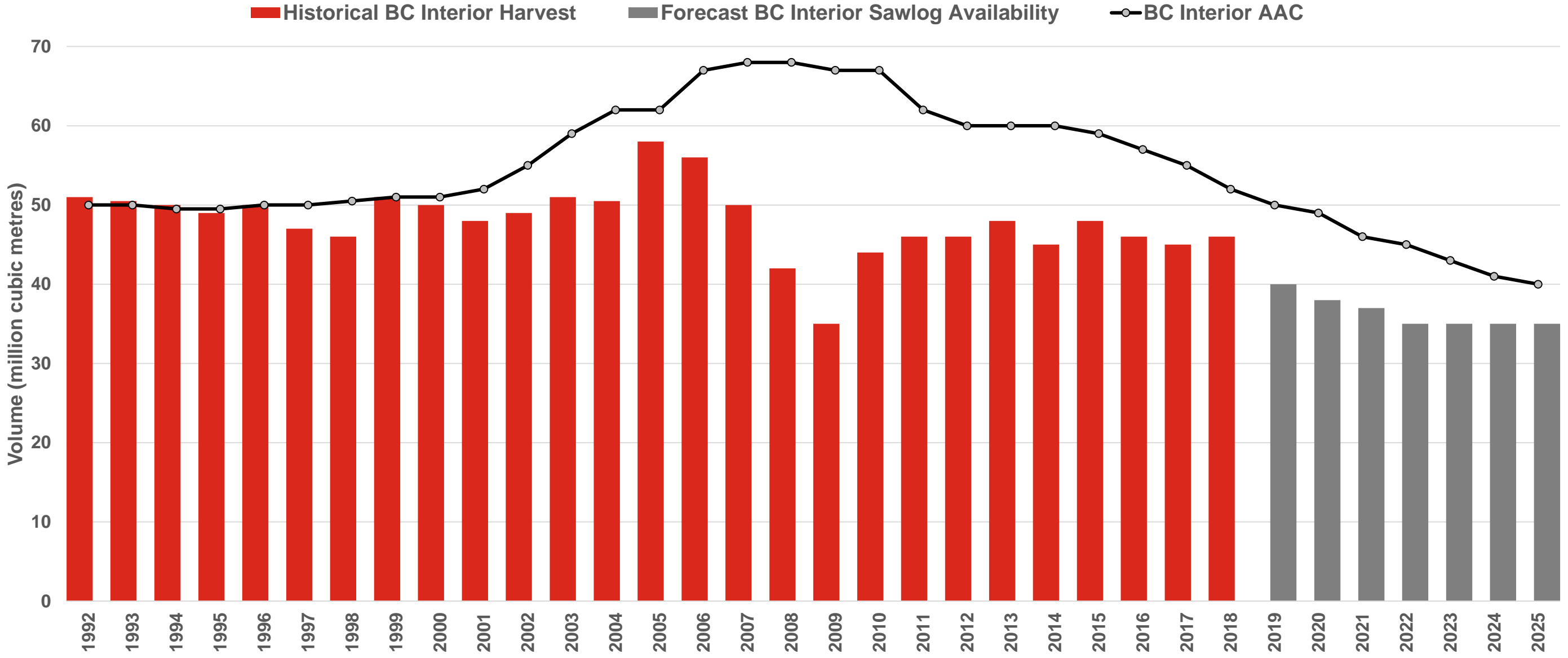
To demonstrate the structural quality of the beetle wood, the BC government supported its use in the construction of the Richmond Speed Skating Oval, which was constructed for the 2010 Olympic Winter Games.



Lessons Learned

1. Don't wait to take action
2. Invest in detection and monitoring
3. Coordination and communication between government and industry is critical
4. Beetles don't respect borders
5. Crisis sparks innovation

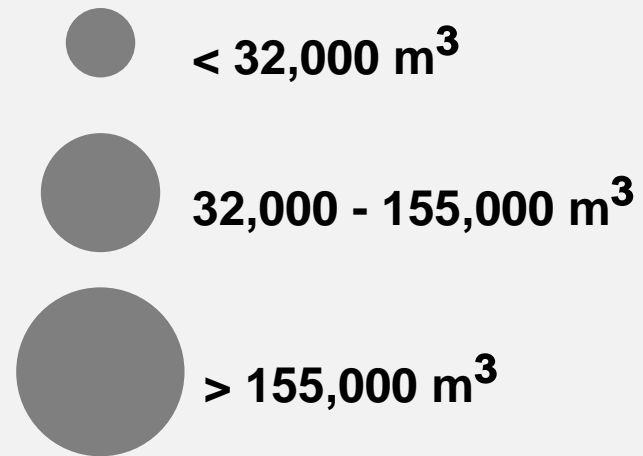
BC's Declining Annual Allowable Cut



Source: Government of British Columbia, FEA

BC Sawmill Curtailments

Volume Scale (m³)

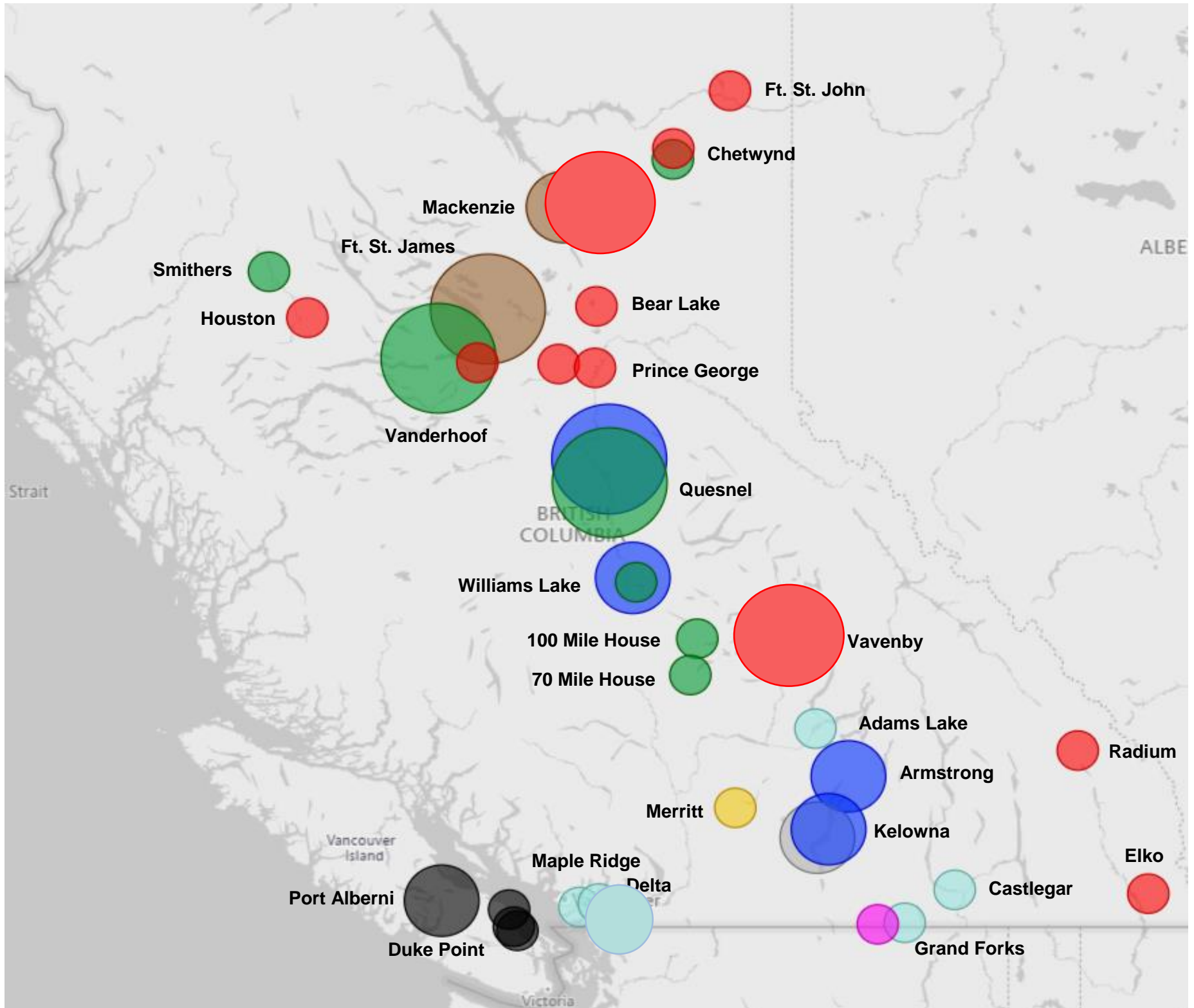


Temporary = 3.3 million m³

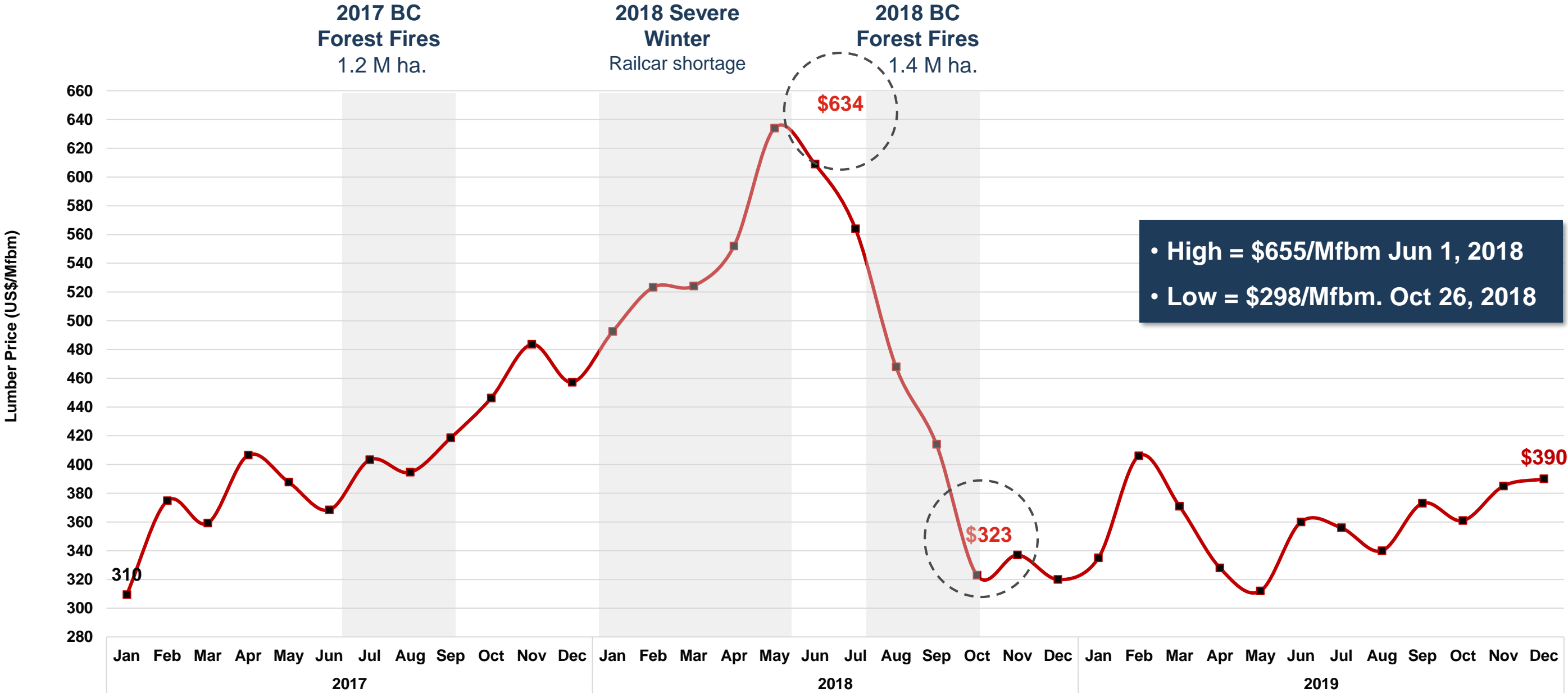
Permanent = 3.8 million m³

Total = 7.1 million m³

Aspen Planers ● Canfor ● Conifex ● Gorman Brothers ● Interfor ● Tolko ● Vaagen ● West Fraser ● Western



W-SPF 2x4 Commodity Lumber Prices (US\$/Mfbm)



Source: RISI/Random Lengths

Acquisitions



Vida

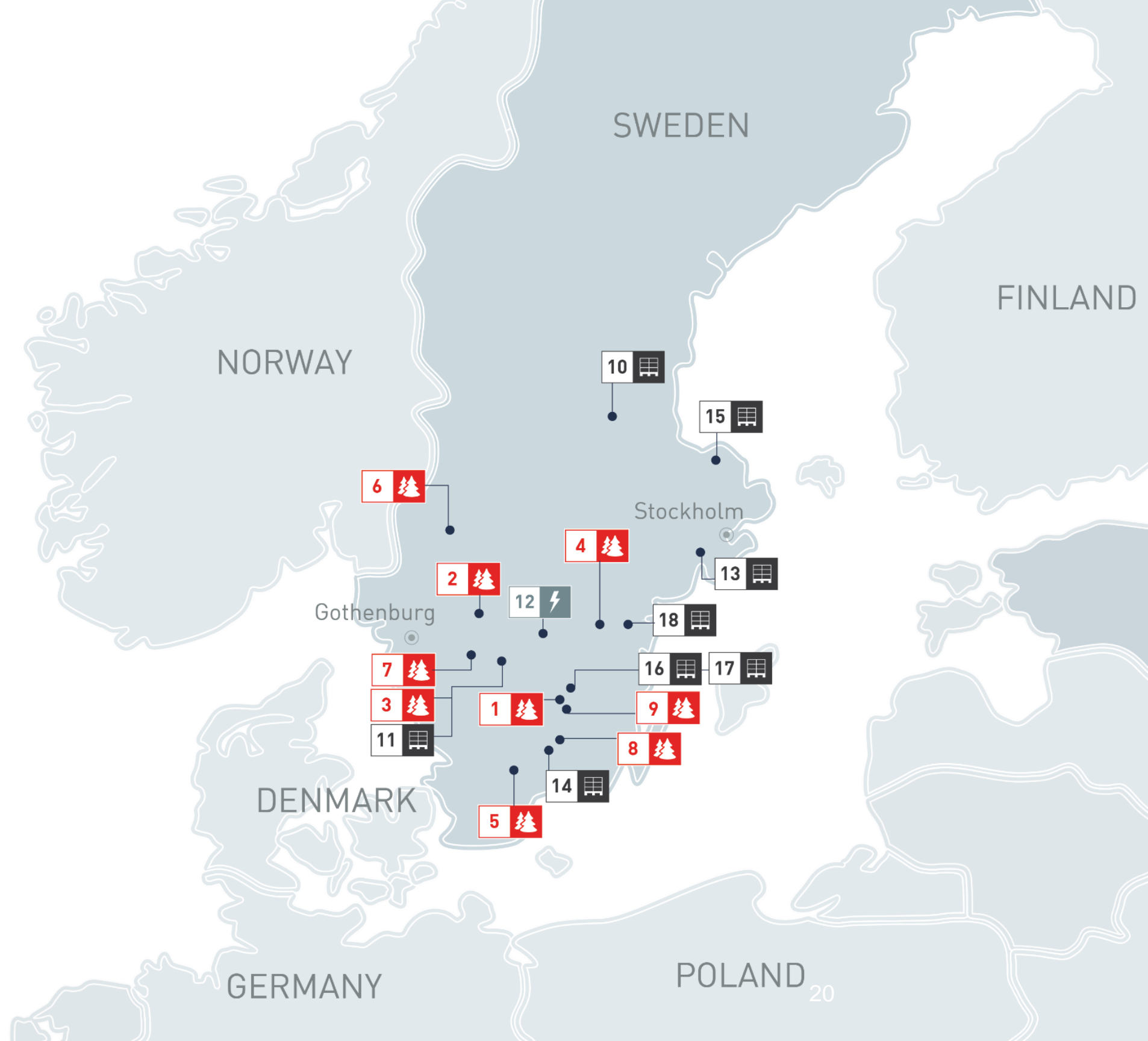
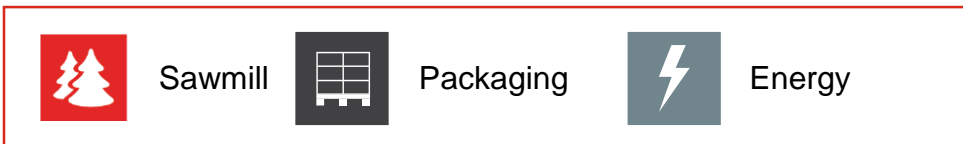
9 sawmills

- Access to high-quality, sustainable fibre

Annual production of 1.8 million m³

9 value-added facilities

- Includes premium packaging, modular housing, industrial products and energy

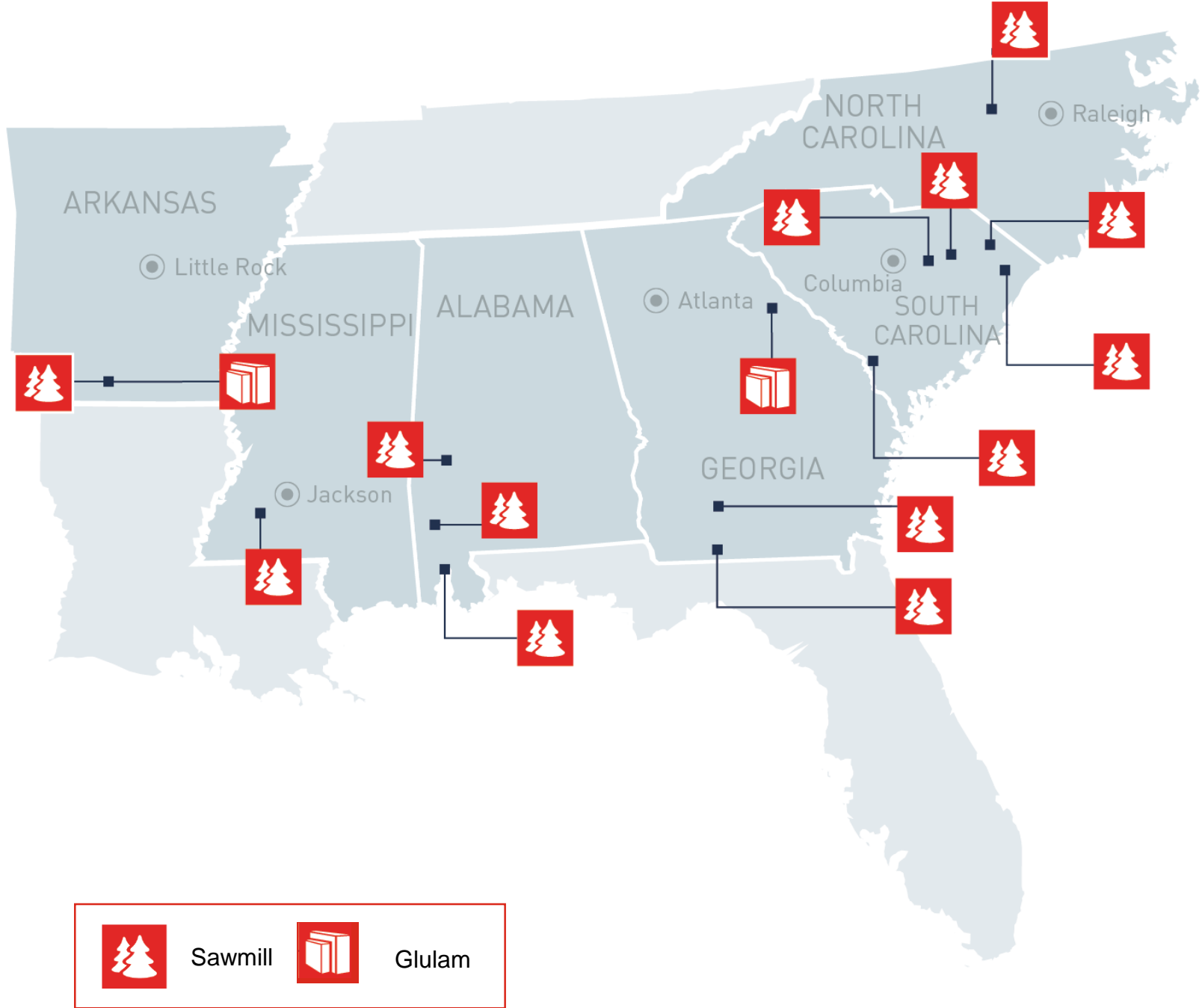
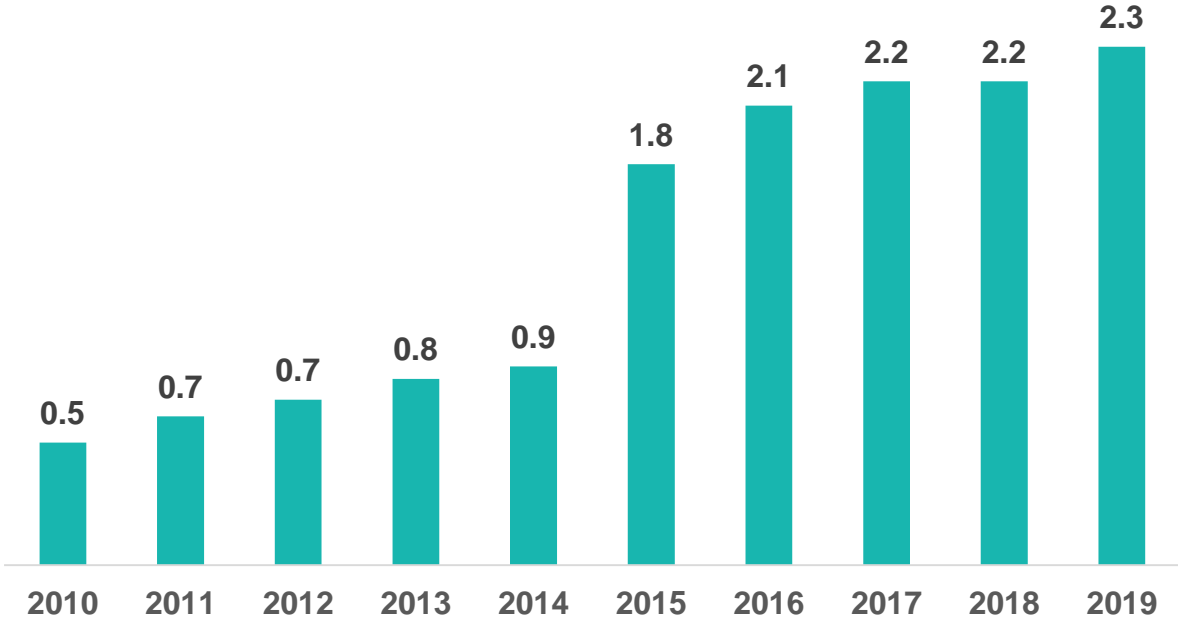


US South Operations

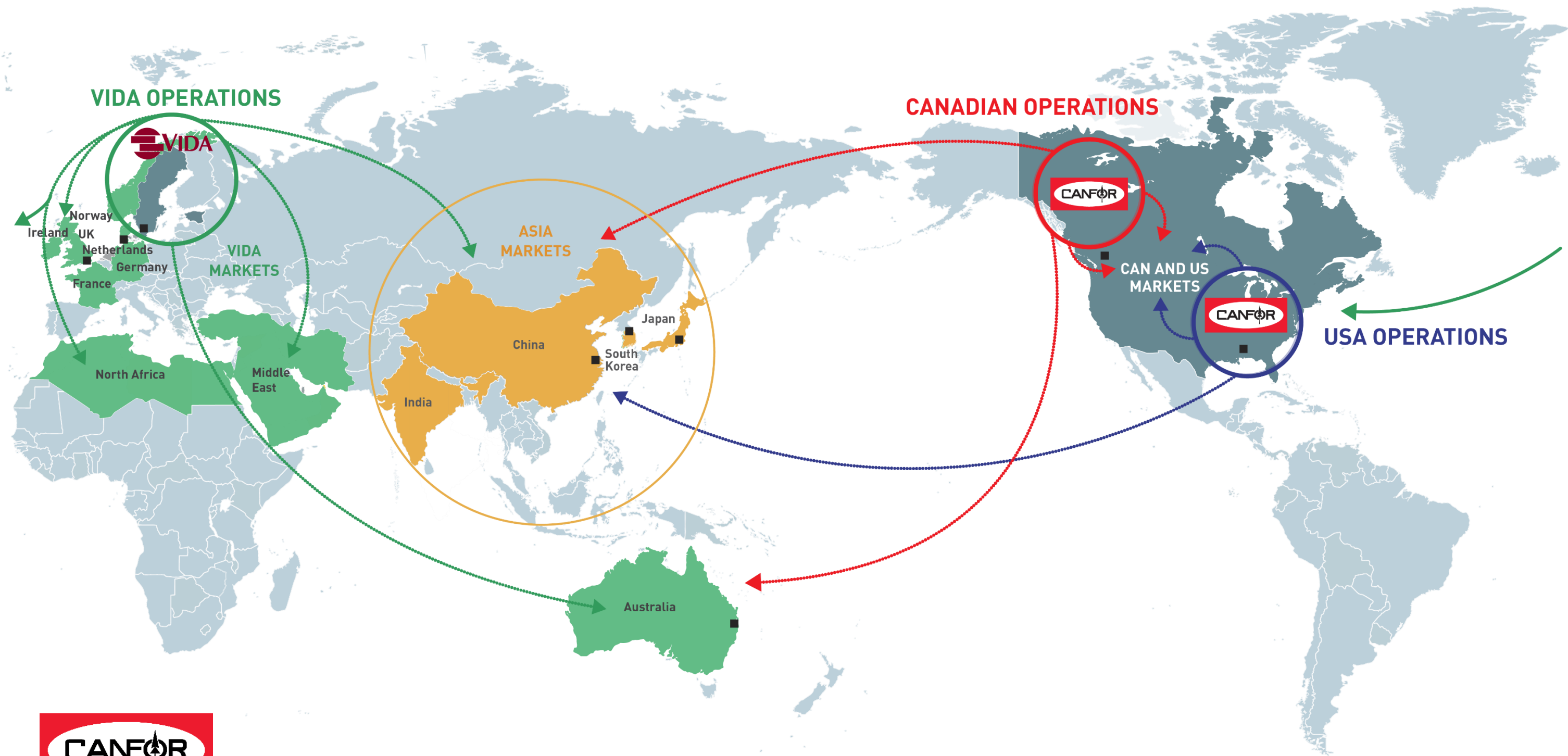
US South Lumber Production (Million m3)

	2019	2018	%chg.
Total South	2.3	2.2	+4%

US South Rapid Expansion (Million M3)



Global Markets



Opportunities in China

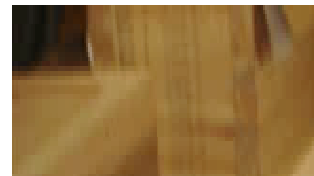


Moving Up In Value and Increase Diversity Of End Use Applications

China



- Spruce-Pine-Fir
- Fir/Larch
- Southern Pine



- Furniture
- Door Core/
Flooring, etc.
- Wood Frame
Construction
- Furring Strips
- Concrete
Forming



China's Green Building Sector

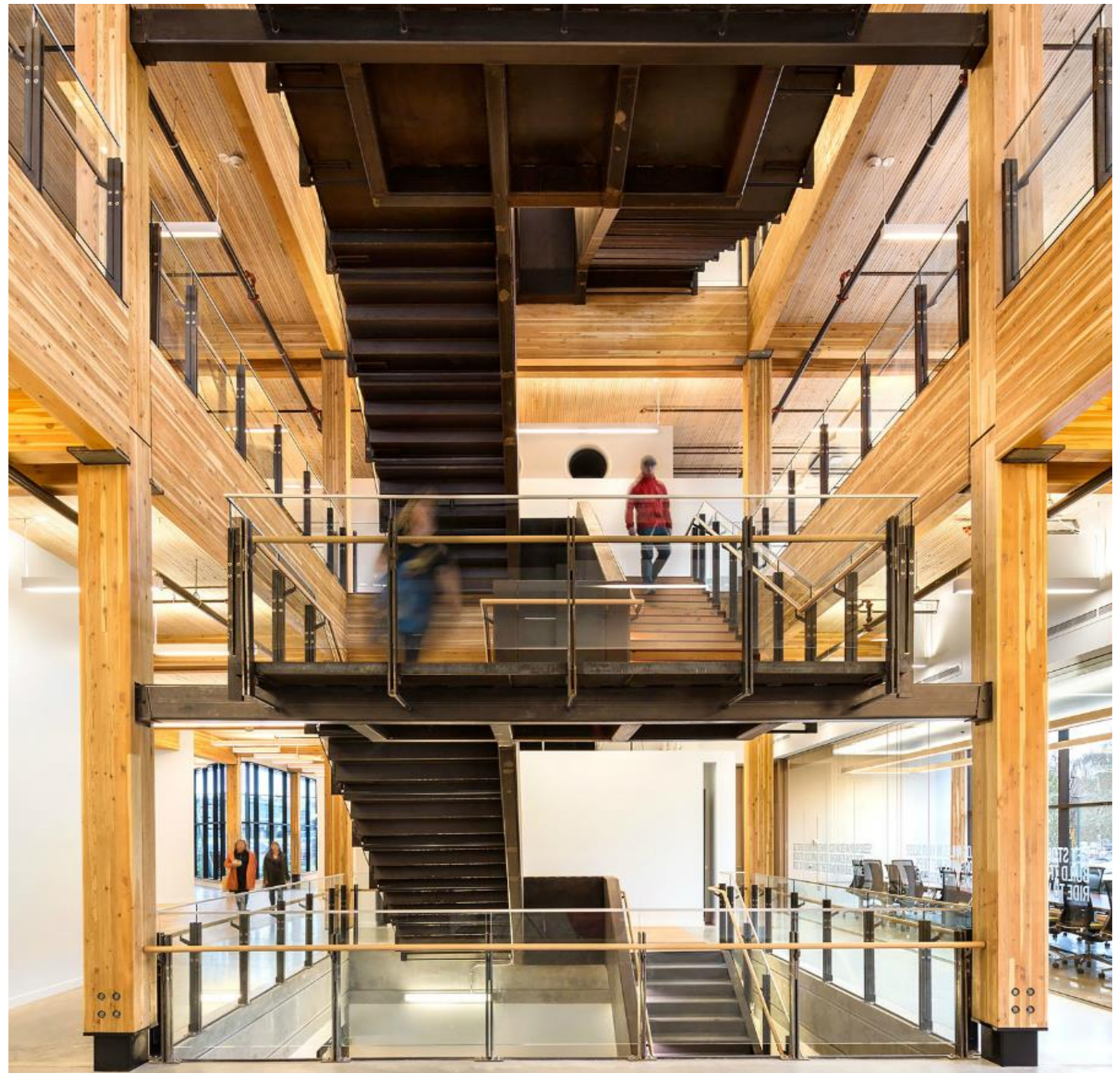
- Targeting **50%** of all new buildings constructed **by 2020** to be **certified green buildings**.
- Targeting to **reduce carbon emissions by 65%** by 2030.
- **Expanding the green building sector** from 5% to 28% by 2030.



Global Building Codes are Changing

The changes support wood construction for mid- and high-rise buildings.

MEC Vancouver Head Office



Recognizing the Benefits of Mass Timber

Buildings are currently responsible for **39% of global carbon emissions**

Mass timber benefits timber:

- Reduce construction time up to 25%.
- Use up to 1/3 the energy production of steel.
- Use 1/5 the energy consumption of concrete.
- Use significantly less carbon-intensive production methods.



Google's Smart City: Sidewalk Labs



A proposed “smart city” located on the waterfront Toronto

Developed by a subsidiary of Alphabet (Google)

Technology and sustainability at its core



A Bright Future

We're excited about the **role that our industry can play** as part of the **climate change solution.**

Forest health must remain a top priority to ensure we have access to high quality fibre.



Thank you



October 2019