



Forestry Innovation
Investment®

MARKET DEVELOPMENT SUMMARY



JAPAN

Top photo: Post-and-beam construction in private residence, Tokyo | Photo: Canada Wood Japan
Bottom photo: Ferichetamamura International Elementary School, Gunma prefecture | Photo: Gunma Felice Academy

Why Japan

- **Large, high-value market for B.C.**
- **Strong Canadian brand for more than 40 years**
- **Growing opportunities in non-residential sector**
- **Sophisticated market with demand for coastal species, S-P-F, value-added and wood pellets**

IMPORTANCE OF FORESTRY AND TRADE DIVERSIFICATION

British Columbia is one of the world's largest producers and exporters of wood products. With a relatively small provincial population, the vitality of B.C.'s forest sector depends on the development of export markets to protect B.C. jobs and ensure the sector remains a leading contributor to the provincial economy.

SUPPORTING EFFORTS TO BATTLE CLIMATE CHANGE

Exports support Canada's international action on climate change. B.C. and Canadian forest products are harvested sustainably and building with wood has a lighter carbon footprint than other construction materials.



Aerial view of Tokyo cityscape with Fuji mountain in Japan.

MARKET IMPORTANCE

Japan is one of B.C.'s longest-standing and most important markets for wood products. The current market development program is supported by funding from industry, the Government of Canada through Natural

Resources Canada's Expanding Market Opportunities program, and the Government of British Columbia through Forestry Innovation Investment's Market Initiatives program.

Strong Canadian brand recognition

Canada's long-term commitment to Japan has been rewarded with strong recognition by Japanese customers. They appreciate the supply of high-quality lumber, mainly from B.C., and efforts to find solutions to building problems of particular concern in Japan, such as seismic stability.

About 74 percent of Canada Wood Japan clients rank Canada as a leader in wood construction technology, well ahead of other exporting nations. Only Japan, with a very strong domestic marketing program, ranks higher.

A reliable, steady market

Japan has a history of building with wood, and this cultural preference is most evident in the housing market. Even as the society ages and the demand for housing declines, wood housing starts remain in the 500,000 to 550,000 range every year.

IN 2019,
TOTAL WOOD STARTS
WERE MORE THAN
523,000

REPRESENTING
A MARKET
SHARE OF
57.8%

Higher value

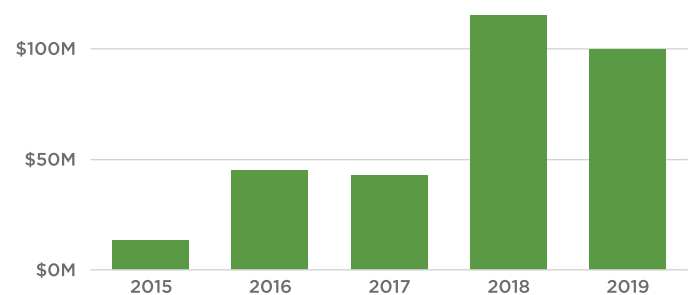
Japanese buyers respect quality and reliable supply and are willing to pay a premium for both. The premium is evident when comparing the unit value of lumber exports to different Asian markets. The Japanese unit value (\$ per m³) for B.C. softwood lumber in 2019 was CAD \$375.58, as compared to \$294.31 in South Korea and \$177.58 in China. While the unit values change with market conditions, the premium over other Asian markets is a consistent factor.

**Japan is B.C.'s
second largest
export market
by value.**

Growing the wood pellet market

Japan is emerging as the fastest growing export market in the world for wood pellets, which are used by power utilities to create electricity, either by co-firing with coal or in dedicated biomass power plants. Canadian wood pellet exports to Japan grew almost ten-fold from 2014 (62,000 tonnes) to 2019 (590,000 tonnes) and now hold a 37 percent share of pellet imports. Wood pellet sales to Japan are a significant and important success story for B.C. as 95 percent of Canadian pellet shipments to Japan originate in B.C.

**B.C. WOOD PELLET EXPORTS TO JAPAN
(BY VALUE)**





Yuyukai Social Welfare Corporation's nursing home project, Takamatsu | Photo: Canada Wood Japan

BUILDING A MARKET OVER THE LONG TERM

B.C. has been shipping lumber to Japan for nearly 100 years. Shipments began in 1923 to help Tokyo rebuild after the Great “Kanto” Earthquake.

In the 1970s, as the Japanese economy grew rapidly and living standards increased, the demand for housing rose dramatically. Realizing that the traditional post-and-beam approach could not meet these needs, the Japanese government looked for alternatives.

Under the leadership of the BC Council of Forest Industries (COFI), the Canadian industry introduced 2x4 construction to Japanese officials. COFI understood that Japanese officials tend to exhaustively evaluate and research products before approving them, and so offered extensive technical and research support to update the building code to allow 2x4 housing construction.

Recognizing Japan’s preference for high-quality products, COFI developed “J grade” as a high-quality S-P-F specifically for the Japanese market. Combined with extensive marketing, including the demonstration “COFI house” on the grounds of the Canadian embassy, Canada was soon established as the preferred supplier to Japan. By the end of the 1980s, more than 13,000 2x4 homes were being built every year.

The expansion of the building code in the late 1980s to allow multi-storey wood-frame housing construction opened up an even larger market for 2x4 construction. As builder capacity grew, sales started to take off in the mid 1990s. Today, the 2x4 market is split roughly 50:50 between single- and multi-family starts, making it an example of how to extend a market through innovation and responsiveness.

This same approach is now being used to grow the non-residential market.

MEASURING PROGRESS

2x4—growing popularity

Canada introduced Japan to 2x4 construction for home building in the early 1970s with the expectation of building a market for North American style housing. The results have far exceeded initial goals. Since the Japanese government introduced a building code in 1974 allowing for 2x4 construction, the market has grown to about 110,000 starts in 2019, or a 12 percent market share of all starts.

FROM THE INCEPTION OF CANADA WOOD PROGRAMS TO MARCH 2020,

MARKET SHARE OF 2X4 HOUSING HAS INCREASED BY
480%

This growth has been highlighted with constant innovation supported by Canadian marketing efforts, including updates on fire proofing, more energy-efficient approaches to 2x4 construction and expansion to multi-family homes.

According to a Japanese Government Cabinet Office survey conducted in 2019, 26 percent of consumers would now choose 2x4 construction for their next home, up from 9.4 percent in 1989. Interest is particularly high among Japan's younger demographic, with more than one third of home buyers under 50 making 2x4 their first choice for home construction. Favorable perceptions of fire and seismic resistive performance of 2x4 housing are cited as reasons supporting these shifting preferences. Current 2x4 market penetration as a percentage of wooden housing is 20 percent.





Erimo Pig Farm, Hokkaido prefecture /
Photos: Hokkaido Chuo Bokujyo

Growing the non-residential market sector

Wood use in non-residential construction offers a huge growth opportunity for Canadian and B.C. companies. Despite a slight decline in the overall non-residential market, wooden non-residential construction continued to show gains in 2019. The wood share in Japan's non-residential market has been growing year-over-year for the past decade to where it now approaches a 10 percent market share.

While wood holds a 9.8 percent share of overall non-residential construction (by floor area), the share grows to 25 percent in the medical, elderly care and social welfare sub-sectors. The tourism sub-sector is using a similar approach to promote the green benefits of wood construction and the natural look of mass timber and coastal species that appeals to Japanese consumers. Agricultural construction is another niche market with strong potential for growth.



207

2x4-WOODEN SOCIAL, ELDER-CARE AND MEDICAL FACILITIES HAVE BEEN INFLUENCED BY **CANADA WOOD JAPAN PROGRAMS**

Demographic shifts influence markets

As Japanese society ages, the demand for housing is shifting towards smaller units and higher density projects. Multi-family construction makes up an estimated 55 percent of housing starts. The wood share of multi-family starts over the 2010–2019 period was very strong, up 10 percent from the previous decade, reaching almost 58 percent in 2019.

Both 2x4 and post-and-beam multi-family construction have grown over this time frame. Changes to the fire code increasingly facilitate the use of wood-frame construction for mid-rise housing (four to five storeys), creating additional market opportunities for Canadian lumber and panel products.



Seiwa 2x4 multi-family apartment building, Chiba prefecture | Photos: Canada Wood Japan



Multi-family residential

Multi-family residential construction offers significant opportunities, particularly for 2x4 platform-frame construction. Changes to the fire code, that now allow five-storey wood-frame construction, create a large opportunity for wood products.

The rapid development of the wood mid-rise residential sector in North America offers a guide to market development efforts in Japan. A combination of promotion, education, product trials and knowledge transfer may establish a new and large market for Canadian dimensional lumber and panels. It may also lead to growth in the demand for Canadian mass timber products. This growth, of course, will be tempered by in-market factors, including that Japanese consumers tend to view concrete construction more favourably for condominiums.

Value-added markets priorities

Japan remains a high-priority market for Canadian value-added manufacturers due to the large housing market and the historical affinity for wood use. Niche market opportunities are available for the value-added sector, such as in tourism, where products made in the distinctive, traditional B.C. coastal design have particular appeal.



Western red cedar Invites tourists into the Kanosuke Distillery in southern Japan | Photo: BC Wood



Canadian functional art warms up the ANA Intercontinental Hotel in Beppu, Japan | Photos: BC Wood

Promoting select mass timber applications

With more than 400,000 post-and-beam housing starts every year, Japan appreciates the benefits of timber construction. Extending this to larger, commercial buildings (the mass timber market) is a logical expansion of the market for wood products, as is now happening in Canada.

To date, the Japanese market has grown slowly. Consumption of cross-laminated timber, for example, is only 30,000 m³ per year. Code changes are opening new markets for engineered wood products. Promotion of nail-laminated timber as a market entry strategy could establish Canada as a leading supplier, with current efforts following the successful market development strategy of the 2x4 sector in terms of working with regulators, offering research and technical support and providing trials, demonstrations and ongoing promotion. In an encouraging trend, there was a noted increase in nail plate truss use in post-and-beam non-residential construction in 2019.



Catholic Macromania Church, Sapporo, Hokkaido | Photo: Canada Wood Japan

LOOKING AHEAD—PROTECTING AND GROWING THE MARKET

B.C. is an established supplier of wood products to Japan, and the Canadian brand is well recognized. The industry has extensive and long-standing relationships with Japanese buyers. While the overall market is relatively stable—trending downwards slightly due to demographic factors—the unit value of Canadian exports has trended upwards. This implies the B.C. industry remains well positioned in the market, but that future gains will require ongoing market development efforts.

The strategy moving forward remains focused in three areas, in terms of the structural lumber market:

- Overcoming barriers to wood use in general, and Canadian products and species in particular, through liaison, product testing, and developing close and ongoing working relationships with Japanese regulators and government officials.
- Increasing capacity in construction and design through training, professional development and technology transfer.
- Promoting wood construction in sectors targeted as conducive to wood-frame construction and offering ongoing growth potential. These sectors may include “building type” (residential, elderly care), “building system” (energy efficiency), “building method” (pre-fabrication) and targeted assemblies such as nail-laminated timber (NLT) or Midply shear walls in mass timber and large scale buildings.
- Protecting the Canadian wood brand through the above activities, as well as reassuring buyers of the Canadian commitment to provide a stable supply of high-quality forest products lumber.

In the value-added sector, marketing will target niche markets. Japanese buyers will continue to be educated on the benefits of Canadian value-added products derived from sustainably managed forests.

The wood pellet industry will focus on maintaining sales. Marketing will reinforce the Canadian brand through promotion and educational material that highlight Canada’s sustainable forest management, chain of custody and high product standards, such as lower ash production and less pollution.

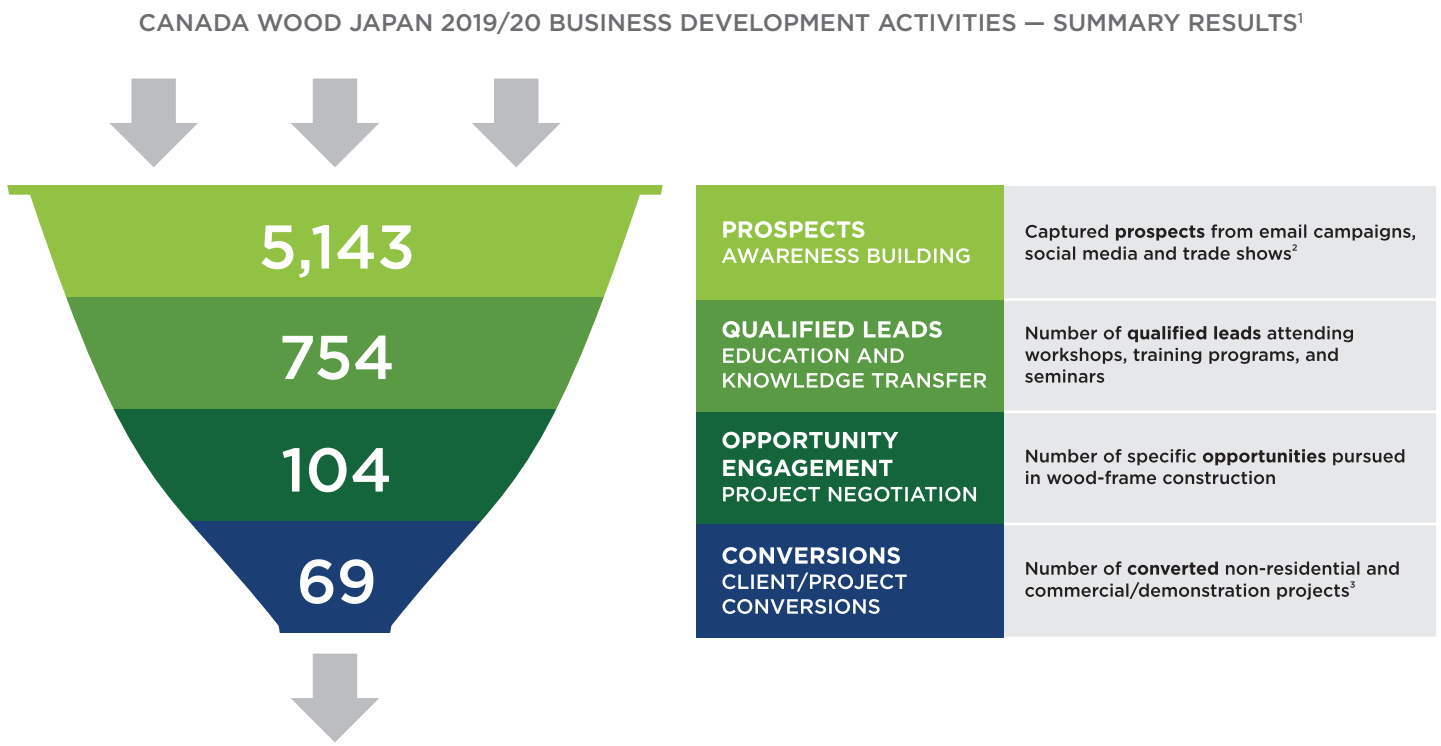


Kagami Building Project: a 5-storey 2x4 mid-rise, mixed-use commercial structure in Toshima Ward, Tokyo | Photos: Canada Wood Japan

Japan performance measures

FII and Canada Wood closely monitor performance measures to track progress and accomplishments against Japan program activities. On an annual

basis, both outcomes against key program priorities, as well as aggregate outcomes from overall program delivery are tracked to ensure the program is achieving what it set out to accomplish.



¹ Summary results for Business Development activities only. Results do not include Canada Wood Japan's market access program (e.g., addressing regulatory barriers to Canadian wood products/systems through codes and standards) and other related efforts that provide a foundation for the market development program in Japan.

² The number of "Prospects" are cumulative over the history of the program. Numbers reported for "Qualified Leads", "Opportunity Engagement", and "Conversions" are for 2019/20.

³ Includes nine non-residential wood projects directly influenced by Canada Wood programming; and another 60 homes (built using the mid-ply wall system) that were indirectly influenced by Canada Wood technical support. Conversions include non-wood projects converted to wood; and projects specifying non-Canadian wood/plywood converted to Canadian wood/OSB.

KEY FUNDERS

Several organizations under the Canada Wood umbrella including the B.C. Council of Forest Industries and the BC Wood Specialties Group lead market development efforts in Japan. Funding partners include the Province of B.C. (through Forestry Innovation Investment) and the federal government of Canada (through Natural Resources Canada). By working together, government and industry have managed to grow the Japanese markets for B.C.'s high-quality wood products. Leveraging resources ensures that Canada remains a leading supplier of forest products to one of the most important, high-value markets.

