



Forestry Innovation  
Investment®



MARKET DEVELOPMENT SUMMARY



# SOUTH KOREA

## Why South Korea

- **Korea buys construction grade lumber**
- **Government policies increasingly favour wood construction**
- **Societal preferences increasingly favour wood**
- **Canada has the expertise and product to meet growing demand**

## IMPORTANCE OF FORESTRY AND TRADE DIVERSIFICATION

Because the Canadian forest industry is export-dependent, developing diverse markets is critical to the health of the forest sector and the Canadian economy. Strategic investments made into established export markets such as South Korea help maintain Canada's brand, secure market share and deliver long-term returns.

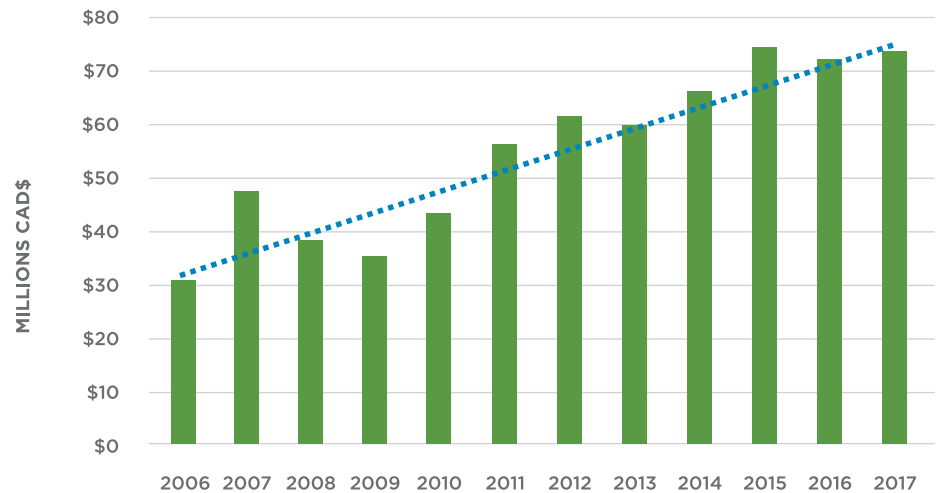
## MEASURING PROGRESS

Since market development activities began in South Korea in 2006, the Canadian effort has achieved considerable success. Canada Wood initiated and has since led market development programming in South Korea, supported by FII and NRCan funding.

### Market development efforts double softwood shipments in a decade

A number of market development activities have contributed to the rise in B.C. softwood lumber exports to Korea. Training construction experts how to build with wood, acquiring government code approvals for new wood assemblies and introducing new construction types have helped double B.C. softwood exports to Korea over the last decade. B.C. supplies nearly all of Canada's softwood lumber to Korea.

B.C. SOFTWOOD LUMBER EXPORTS TO KOREA

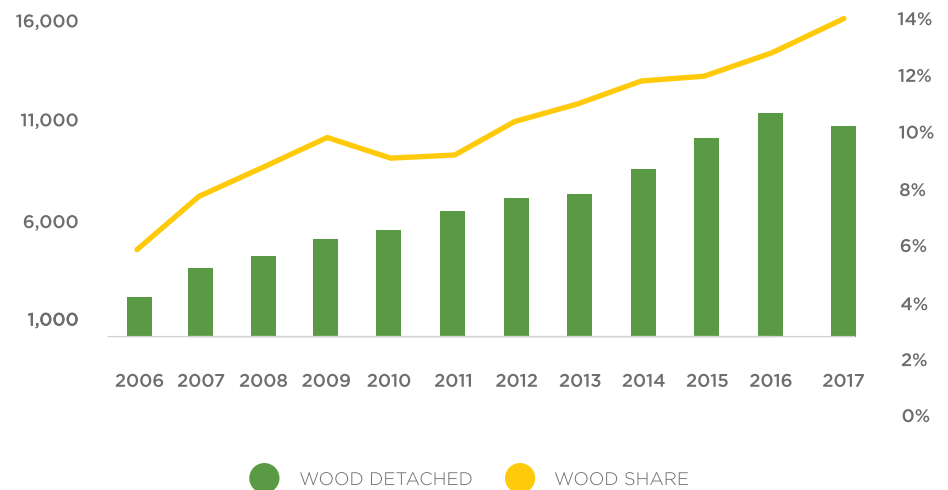


Since 2006, when the market development began, the value of B.C. softwood lumber exports to Korea has more than doubled. Source: BC Stats, 2018.

### Wood's share in the detached home market continues to grow

Over the last decade, wood has become increasingly common as a primary building material in the low-rise housing segment, particularly detached single-family homes. This has happened for a combination of reasons: builders and homeowners are realizing the benefits of wood construction (e.g. lower construction and maintenance costs), Korea's national decentralization strategy and societal preferences for healthy homes built with wood, not concrete or steel.

DETACHED HOMES CONSTRUCTED IN KOREA, 2006-17



Since 2006 when the program began, the number of wood buildings and detached homes in Korea has increased—and so has wood's share of this construction. Source: Business Intelligence Unit, FPIInnovations, 2018 via Canada Wood Korea



*South Korea has propelled itself from one of the poorest countries in the world to a high-tech industrialized economy in one generation.*

## **BUILDING A MARKET FOR B.C. WOOD PRODUCTS IN KOREA**

South Korea is famous for its spectacular rise from one of the poorest countries in the world to a high-tech industrialized economy in just one generation. In the 1960s, GDP per capita was comparable with levels in the poorer countries of Africa and Asia. Since then, South Korea's economy has grown, on average, 7.5 percent per year. In 2004, it joined the trillion-dollar club of world economies.

The growth of the industrial sector was the principal stimulus to economic development. Benefiting from strong domestic encouragement and foreign aid, Korea introduced modern technologies into outmoded or newly built facilities at a rapid pace, increased the production of commodities—especially those for sale in foreign markets—and invested the proceeds back into further industrial expansion.

In the 1960s, 70s and 80s there was a push toward reconstruction and, as the population began to cluster in major cities, countless high-rise apartments were constructed to meet the need for a sudden increase in urban population.

Although initially focused on concrete high-rise construction, given Korea's growing economy and increasing standard of living, it was only logical to expect demand for single-family, low-rise homes to grow and, subsequently, demand for wood products.

Growing affluence in the country has also led to increased demand for higher quality appearance and finishing products made of wood. In response to this growing demand, associations such as the BC Wood Specialties Group began actively promoting value-added products from B.C. in South Korea.

**98 percent of B.C. lumber shipped to Korea is mid-grade, providing a market for lumber otherwise sold to the U.S.**

In the early 2000s, B.C. was looking to diversify its export base, particularly away from the U.S., but needed to find buyers for structural grades of lumber that had been traditionally destined for the North American construction industry. South Korea was already purchasing some Canadian primary and value-added wood products, but industry was reporting new opportunities for B.C. lumber

and needed support to catalyze those openings. With support from Forestry Innovation Investment and Natural Resources Canada, Canada Wood opened an office in Seoul in 2006 and initiated a market development program.

The trend of building with wood in Korea has increased since 2006. This was largely influenced by the 4th Comprehensive Territorial Plan (2000-2020) and subsequent Revised Comprehensive Territorial Plan (2011-2020), which encourages a more balanced mix of building types (high-, mid- and low-rise) as part of the country's urban decentralization strategy.

Korea was—and continues to be—a relatively small market compared to others in Asia, but it is a highly valued market because it demands structural lumber. 98 percent of lumber shipped from B.C. to Korea is construction grade lumber, providing a home for lumber otherwise sold to the U.S.



*By recognizing the value of wood as a construction and finishing material, South Korea presented itself as an opportunity for the Canadian wood product industry to grow market share. Most of Korea's wood consumption currently occurs in the single-family home segment.*

**Over the years, Canada Wood Korea has completed and acquired the necessary government certificates that permit wood in many construction applications.**



*In addition to training over 3,000 people through university and association-based programs, Canada Wood Korea has hosted over 12,000 people at seminars and workshops since 2009.*

To increase the amount of wood construction in Korea, Canada Wood has had to overcome many obstacles on behalf of industry. These include successfully completing tests and acquiring the necessary government certificates for pressure treated lumber as well as for fire resistance and sound insulation of wood assemblies. Without these certificates, wood would not be permitted in many construction applications.

When stricter standards for pressure-treated wood products were implemented in 2012, Korean buyers switched from Canadian SPF to suppliers from the U.S., Europe and New Zealand. Between 2013 and 2015, softwood exports from B.C. to South Korea dropped 30 percent.

In an effort to meet Korea government standards for treated lumber, Canada Wood Korea initiated a multi-year outdoor “field stake performance test” in 2010. Because of positive test results, South Korean scientists recommended the revision of Korean standards.

Introduced in 2011/12, the “Peanut House” is essentially a duplex (two family units on one lot) that evokes connotations of a peanut (two nuts in one shell). A Korean architectural group with technical support from Canada Wood created the innovative design, which has rapidly gained popularity among first-time homebuyers. A translation of Canadian-style building systems (townhouses), the peanut house is not only faster and cheaper to build, but also incurs lower maintenance costs.

However, a shortage of capable architects, inspectors, structural engineers, builders and carpenters emerged as a major challenge to growing the market. Therefore, as part of Canada Wood’s programming over the last six years, thousands of trainees have received hands-on experience building with wood.

The market development strategy in South Korea is revised annually to adapt to changing market conditions and has helped Canadian wood product exports to Korea increase by over 130% by value since 2006 (from CAD \$30 million to over \$70 million).



*Using Canadian wood-frame construction technology and translating it to the Korean marketplace, the Canada Wood Group with Korean partners successfully created a new brand in Korea's housing industry—the Peanut House.*



*To develop qualified contacts and business opportunities for Canadian companies, forest product associations regularly participate in Korean trade shows. Exhibits feature a wide variety of forest products—from structural lumber to value-added products.*

## GROWING MARKET SHARE—NEXT STEPS

While Canadian wood product exports to Korea have increased considerably since market development efforts began, the next 15 years is even more promising. Korean government policies promoting green building, energy efficiency, and carbon storage will benefit wood, as will ongoing societal preferences for low-rise, healthy housing that uses wood in structural as well as appearance applications.

Since adopting a building energy standard in 2004, the Korean Government has continued to revise and update its requirements for building energy efficiency and wood continues to be viewed as an excellent building material. The government also began providing financial incentives and low-interest loans to encourage builders who are able to meet energy efficiency targets. Additional policies that encourage the use of sustainable, environmentally friendly construction materials include The Long Life Housing Policy and the Low Carbon, Green Growth Act.

To spur more low-rise construction as part of its decentralization strategy, the Korean government recently lowered property sales taxes and dropped mortgage rates to historic lows, resulting in more single-family home builds. The single-family and low-rise, multi-family markets have grown considerably over the last decade and will continue to grow.

Demand for wood has also been driven by a desire for healthy housing, particularly in lower density housing for retirees, elder care facilities, smaller units for young families as well as high-end housing for executives. Efforts to provide technical support around codes and standards will continue to expand wood's share in all of these growing construction segments.

As new homes are built, Korean customers will increasingly look to purchase high-end finished wood products primarily for interior finishing applications. Finished wood products such as doors, windows, flooring, mouldings, kitchen cabinets, and furniture products are considered natural and healthy and are often preferred, despite higher costs. Growing market share for Canadian forest products includes educating Korean buyers, specifiers and key industry figures on the benefits of procuring Canadian products derived from sustainably managed forests.



*South Korea's decentralization strategy includes building more low-rise buildings, which bodes well for wood and wood construction.*

Industrialization is another policy aimed at partially addressing Korea's growing labour shortage and improving construction quality. According to the Korea Research Institute for Construction Policy, industrialized building may become a USD \$3.4-billion industry by 2020. "Industrialized building" can encompass pure wood methods or hybrids featuring wood in-fill walls, partitions, floors, roof trusses and precut mass timber. Industrialization also fulfils low carbon and green building objectives by offering advantages such as rapid construction, being a dry process and generating energy savings.

Aside from low-rise construction, the use of infill walls shows excellent prospects as do new advanced building systems that allow taller buildings to be constructed with wood from B.C. Promoting wood as a solution to meeting government's targets—and providing the necessary wood-specific technical and regulatory guidance—will result in greater market share for B.C. Canada Wood Korea re-positioned its advanced builder training courses in 2015 to align with the Korean government's policy changes.



Interest in taller wood buildings is reaching new heights in Korea. A recently completed six-storey wood demonstration project has garnered media interest and is expected to boost the acceptability of wood infill walls in both residential and commercial buildings.

Infill walls present a new opportunity for wood in South Korea's construction industry. These can be prefabricated in a factory or built on site and have very good insulation characteristics in relation to their thickness, providing substantially better energy performance than traditional concrete, masonry or steel construction. In 2016/17, South Korea completed a six-storey demonstration project using Canadian SPF and OSB. The design of the building is made feasible because of the use of wood infill walls and wood ceilings on each floor.

Lastly, the Government of Canada projects the Canada-Korea Free Trade Agreement will increase exports by up to 32% and boost Canadian GDP by \$1.7 billion annually—this is significant, as 51% of Canadian exports to South Korea in 2016 originated in B.C. The Agreement will eventually eliminate all Korean tariffs on forestry and value-added wood products.

With sustained effort and ongoing adjustments to the market development strategy, B.C. and Canada will be able to capitalize on the growing demand for wood products in South Korea.

## KEY FUNDERS

Market development efforts in Korea are delivered by industry (through Canada Wood Korea) with support from the Province of B.C. (through Forestry Innovation Investment) and the federal government of Canada (through Natural Resources Canada). Leveraging resources ensures that Korea remains a key—and growing—market for Canadian softwood lumber products.

Canada

