



Market Development Strategy for the Value- Added Forest Industry

April 2015



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1. EXECUTIVE SUMMARY

BACKGROUND AND SCOPE

Forestry Innovation Investment and Natural Resources Canada, on behalf of provincial and federal governments and industry partners, engaged MNP LLP (MNP) to develop a market development strategy for Canada's value-added forest industry. The overall objective of the strategy was to help inform and establish the industry priorities for future investments in Canada, the United States and in offshore market development.

Canada's forest industry produces a broad range of value-added products. To help focus the scope of the study ten of the industry's sectors were considered, with six meeting the criteria for inclusion in the strategy: remanufactured lumber, engineered wood products, packaged building solutions, millwork products, cabinets, and furniture. In addition to the six selected sectors, western red cedar ("cedar") products were included as an additional sector to highlight the unique characteristics of the species. Cedar is also a key component of other sub-sectors of the value added industry. However, to assess the particular opportunities for cedar products they are separated out in this report.

KEY SECTOR FINDINGS

Remanufactured Lumber

Canadian remanufactured lumber producers compete in global markets with countries that operate with lower fibre, energy and labour costs. There are low levels of product differentiation within the sector and Canadian producers are able to compete based on features such as species, product attributes, access to distribution networks and close proximity to markets. Growth in the sector is constrained by the availability of lumber in sizes and specifications that meet the sector's product and market requirements.

The markets that offer the most potential for growth for the remanufactured lumber sector are Canada and the United States. These markets are readily accessible and do not face as many of the trade barriers and regulatory requirements that are often associated with other export markets.

Engineered Wood Products

For the engineered wood products sector, only the markets for glue laminated timber (glulam), laminated veneer lumber (LVL), and cross laminated timber (CLT) products were considered. The sector produces both standardised and custom products. The markets for standardised products are price sensitive and tend to be regional¹ due to the high costs associated with transporting the large products over long distances. Standardised engineered wood products are widely adopted in residential and large scale building projects in Canada and the United States, and products and global markets are considered to be in balance.

There is, however, growing interest in custom glulam and LVL for specific architectural and design applications because the finished products can be unique and visually appealing. Custom CLT is in the early stages of market development in Canada and the United States and is increasingly being considered for use in multi-unit residential and commercial construction segments where concrete and steel were formerly used exclusively. As the demand for these products increases, the sector's ability to supply products and to capitalise on market opportunities may be constrained by its production capacity.

¹ In this report the term regional markets refer to markets that are regional on a geographical basis.

Packaged Building Solutions

The packaged building solutions sector manufactures a variety of prefabricated buildings and sections and log homes and complexes. The sector offers both budget and luxury product lines. The markets for these products tend to be regional due to the size and weight of the products. In addition, Canada and the United States are the priority markets for the sector, because design limitations and regulatory requirements in other countries may restrict the types of structures that may be built using packaged building solutions. The ability to remain current and to comply with different requirements may limit the sector's ability to expand into new markets.

Prefabricated buildings have a negative perception in residential markets and are losing market share to site built homes. The sector is working to diversify its product offerings by providing high-end solutions, offering home building kits, and tailoring solutions for specific market segments. These segments range from temporary accommodation and home extension application to luxury products for recreational and resort areas.

Millwork Products

The millwork products sector produces a variety of standardised and custom design products. The millwork products markets are regional in nature, and residential applications are the largest market segment. There are low levels of product differentiation within the sector and the sector faces strong competition from product substitutes. To be competitive, manufacturers must have the ability to offer the lowest prices, deliver a range of high quality products and secure supply contracts with distributors and building contractors.

The markets that offer the most potential for growth for the millwork products sector are Canada and the United States. Wood is preferred among residential segments because of its aesthetic qualities, while commercial and industrial segments tend to be more price sensitive and focus on product durability and maintenance requirements. There is a growing preference within Canada for 'Made in Canada' brand products. A greater market awareness of the sector's niche products customisation capabilities and service offerings by architects, engineers and builders may present opportunities for growth in the sector.

Cabinets

The cabinet sector in Canada produces standard and custom products for regional markets, primarily for residential and renovation segments. The sector faces pressure and is losing market share to lower priced imports from emerging countries. Large manufacturers are moving production offshore and exporting products to Canada, creating more competition for local producers. There is a small market segment for custom designed cabinets in Canada. The sector exports some products to the United States; however, expansion into other markets is challenging due to trade tariffs, limited access to distribution networks and the high transportation costs associated with shipping assembled cabinets.

Furniture

The furniture sector produces wood furniture in standard sizes and custom designs and is primarily produced from hardwood species. Markets for furniture are regional and are influenced by new residential construction and new business formations. The furniture sector is saturated and is also losing domestic market share to lower priced imports. Canadian furniture producers are competing on product design, ergonomics and aesthetic features and are able to retain customers by offering lower prices or differentiating themselves through branding, higher quality products and customer service. There is some demand for niche products from small market segments.

Cedar

Cedar is a unique species, valued throughout the world for its natural beauty, durability, versatility and aesthetic properties. The species is well suited to a variety of indoor and outdoor applications. The markets that offer the most potential for growth in the sector are Canada and the United States. On a volume basis markets in Europe, Australia, and New Zealand are much smaller than the North American market but in terms of value returns these remain important markets for cedar producers. Products are well established and there are opportunities for finding higher valued applications for some of the sectors traditional products. Cedar products face competition from non-wood products and some competition from cedar value-added products manufactured in and exported from emerging markets.

MARKETS

Canada and the United States were identified as priority markets for value-added wood products. These markets offer the most potential for industry growth. The majority of value-added product markets are regional, and interviews with industry representatives suggest that there are untapped opportunities in these markets.

Markets outside of Canada and the United States present greater challenges due to trade barriers, government restrictive policies, and differences in building codes and regulatory requirements. Transit times associated with shipping products to some of these markets can be an obstacle for small businesses which do not necessarily have the financing or cash flow that would allow for delays in payment.

Established markets in Western Europe and Japan are considered to be premium markets for some Canadian value-added industry products because there is a cultural preference for using wood and consumers in some market segments are able to pay premiums for Canadian products. These markets consume small quantities of niche products but often pay higher prices than domestic markets.

South Korea, Turkey and Saudi Arabia were identified as emerging markets for value-added products. While shipments to these markets have historically been low, some value-added producers have had some traction in selling niche products to these markets.

Other markets such as China, Russia and Mexico offer limited opportunities for value-added products from Canada. These markets are not without challenges and in most cases are able to source products from nearby countries that are more cost competitive than Canadian producers.

2. INTRODUCTION

BACKGROUND AND SCOPE

Forestry Innovation Investment (FII) is the Government of British Columbia's market development agency for forest products. FII is responsible for maintaining and expanding global markets for BC forest products. FII works in partnership with the forest industry, research institutions and other stakeholders to deliver programming that responds to domestic and international market challenges and opportunities.

Natural Resources Canada (NRCan) is a Government of Canada department that seeks to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products.

FII and NRCan, on behalf of provincial and federal governments and industry partners, engaged MNP LLP (MNP) to develop a market development strategy for Canada's value-added forest industry. The overall objective of the strategy was to help inform and establish the industry priorities for future investments in offshore market development and promotions.

This report contains:

- A description of the criteria and rating scale that were used to identify the sectors to include in the strategy.
- A value-added industry overview that describes the industry's objectives, SWOT analysis, key success and risk factors, performance metrics and summarises existing market programs and initiatives.
- Brief profiles for six of the industry's sectors, namely remanufactured lumber, engineered wood products, packaged building solutions, millwork products, cabinets, and furniture.
- A short profile for the western red cedar species.
- A market analysis that discusses economic indicators and market conditions in priority and other markets.
- A strategic analysis that includes four market competitive strategies, market sector grids, and high-level strategy maps for each of the recommended strategies.
- Conclusions that highlight the key findings and recommendations from the study.

APPROACH

In preparing the strategy, MNP carried out the following activities:

- Gathered and reviewed reports and other information provided by FII and NRCan, as well as reports and publications from provincial and federal governments, public companies, and research organisations.
- Administered an online survey of industry participants from across Canada.
- Conducted in-person and telephone interviews with industry stakeholders.
- Analysed market and economic data.
- Developed a strategic plan for market development.
- Researched market development initiatives in other jurisdictions.

LIMITATIONS

The report is provided for information purposes and is intended for general guidance only. It should not be regarded as a substitute for personalised, professional business or financial advice.

MNP has relied upon the completeness, accuracy and fair presentation of all information and data obtained from Industry and public sources, believed to be reliable. The accuracy and reliability of the findings and opinions expressed in the presentation are conditional upon the completeness, accuracy and fair presentation of the information underlying them. As a result, we caution readers not to rely upon any findings or opinions expressed as accurate or complete and disclaim any liability to any party who relies upon them for business or investment purposes.

Additionally, the findings and opinions expressed in the presentation constitute judgments as of the date of the presentation, and are subject to change without notice. MNP is under no obligation to advise of any change brought to its attention that would alter those findings or opinions.

3. VALUE-ADDED INDUSTRY SECTORS IDENTIFIED

Canada's forest industry produces a broad range of value-added products; however, there is no commonly agreed upon definition of the specific sectors that constitute the value-added industry (the "industry").²

To help define the scope of the industry for the purposes of this report, MNP developed three criteria. The criteria were defined as follows:

Table 1: Sector Criteria Descriptions

Criteria	Descriptions
Primary Manufacturing By-products	The sector uses raw material inputs from a primary manufacturing process, such as lumber and panels to produce a higher grade of product. ³
Specialised Equipment	The manufacturing process requires specialised technology and production equipment ⁴ to increase the value of the raw material inputs.
Finished Product	The product has completed the final stage of the manufacturing process.

A simple rating scale was also used to rate each industry sector compared to the criteria. The following table describes the rating scale:

Table 2: Rating Scale Descriptions

Rating Scale	Descriptions
High	Most activities or products met the criteria.
Somewhat	Some activities or products met the criteria.
Low	Few or no activities or products met the criteria.

Only those industry sectors that were given a "high" rating for two or more criteria were included in the strategy.

² Standard definitions based on the North American Industry Classification System (NAICS) do not necessarily reflect the value-added industry's composition. As a result, the size and composition of the industry's sectors are not well-defined by readily available measures and statistics.

³ Pulp, paper, and wood pellet manufacturing plants use sawmill by-products, but are excluded from the strategy.

⁴ Excludes log breakdown, dry kilns or pressure treating equipment for the purpose of narrowing the scope of the strategy.

Ten sectors were considered, with six meeting the criteria for inclusion in the strategy: remanufactured lumber, engineered wood products, packaged building solutions, millwork products, cabinets, and furniture⁵. The ratings for the identified sectors are summarised in Table 3.

Table 3: Sector Evaluation Results

Sectors	Primary Manufacturing By-products	Specialised Equipment	Finished Products
Remanufactured Lumber	High	High	Low
Engineered Wood Products	High	High	High
Packaged Building Solutions	High	Somewhat	High
Millwork Products	High	High	High
Cabinets	High	High	High
Furniture	High	High	High

In addition to the six sectors, western red cedar (“cedar”) products were included as an additional sector. The rationale for including cedar was to highlight the unique characteristics of the species and was not based on the rating criteria.

⁵ The four sectors not included were shakes and shingles, panelboards, pallets and containers, and other wood products.

4. VALUE-ADDED INDUSTRY OVERVIEW

The value-added industry overview provides the industry's objectives, the SWOT analysis, key success and risk factors for the industry. This section also describes types of programs that provide support for market development initiatives and explains some of the challenges associated with developing industry metrics.

INDUSTRY OBJECTIVES

As part of the analysis, MNP compared the industry objectives that were provided by FII with the comments from industry stakeholders collected during interviews and through survey responses (Table 4). In general, most of the objectives were closely aligned with the comments provided by industry stakeholders.

Table 4: Value-Added Industry Objectives that Align with Industry Stakeholders' Comments

Objectives	Industry Stakeholders' Comments
Grow market share in North America and overseas markets Provide information on key markets through targeted research	<ul style="list-style-type: none"> The industry is focused on defending market share and pursuing greater opportunities in the United States and Canada. There is interest in diversification into overseas markets, but not at any cost. Rather, overseas markets should be pursued on an opportunistic basis and by targeting specific niche products and market segments that offer the greatest value.
Promote the value and quality of Canadian wood products in key markets	<ul style="list-style-type: none"> There is a need for greater awareness of the industry's range of products and services offerings, and in particular the industry's design and customisation capabilities.
Help the industry make contacts with distribution partners	<ul style="list-style-type: none"> There is growing interest in direct selling to retailers and end-users.
Promote BC / Canada's environmental reputation as a sustainable supplier	<ul style="list-style-type: none"> There is a global priority to ensure that fibre is procured from legal sources. Consumer preferences are trending toward more green materials, 'healthy' buildings, energy efficiency and low to zero emission construction.
Reduce market access barriers (e.g. phytosanitary requirements, building codes)	<ul style="list-style-type: none"> Protectionist trade policies and costs associated with tariffs, certifications, and taxes make market expansion prohibitive for some businesses. Similarly, small producers do not necessarily have the resources to stay current on the regulatory changes affecting building materials in different export markets.

The value-added industry objectives that differed from the comments provided by industry stakeholders are listed in Table 5.

Table 5: Value-Added Industry Objectives that Differed from Industry Stakeholders' Comments

Objectives	Comments from Industry Stakeholders
Help the industry improve its business performance	<ul style="list-style-type: none"> • Insufficient resources, market expertise and management capacity are some of the limitations to pursuing growth opportunities in new markets for the smaller producers. • The industry is not necessarily focused on developing new products, but on finding higher valued applications in new and existing markets.
Help the industry turn ideas and innovation into products and services	
Promote BC / Canada's environmental reputation as a sustainable supplier	<ul style="list-style-type: none"> • Sustainability is no longer a differentiator, but more of a prerequisite to doing business in most markets.

The primary differences between the objectives for the industry provided by FII and those identified by industry representatives are that resource constraints are more of a concern for the industry than business performance, and that industry puts more emphasis on finding new and higher valued applications for existing products than on investing in new product development and innovation. In addition, industry representatives viewed sustainability as more of a mandatory business requirement than as a way to differentiate themselves in the market.

INDUSTRY SWOT ANALYSIS

The SWOT analysis (Table 6) describes some of the industry's strengths, weaknesses, opportunities and threats. This analysis was derived through a combination of literature review, interviews, and MNP analysis.

Table 6: Value-Added Industry SWOT Analysis

Internal Characteristics	Strengths	Weaknesses
	<p>Fibre Quality and Sustainability⁶</p> <ul style="list-style-type: none"> Canadian forests supply large quantities of high-quality timber in unique and highly sought after species.⁷ Canada has a history of strong sustainable forest management and access to some of the highest quality wood fibre in the world.⁸ <p>Access to Markets</p> <ul style="list-style-type: none"> The industry sells products to a sizeable domestic market and shares a border with the large US market.⁹ This is important, as industry interviews indicated that manufacturers prefer to supply markets within trucking distances of their facilities. Quebec and Ontario producers' have some shipping savings given the travel distances to markets in Western Europe. Similarly, BC and Alberta producers' benefit from proximity to Asian markets. <p>Product and Market Diversification</p> <ul style="list-style-type: none"> The industry has the ability to adapt products and pursue applications that deliver the most value in global markets.¹⁰ Producers are market and value driven, and compete on product attributes and service. <p>Infrastructure</p> <ul style="list-style-type: none"> The industry is supported by a critical mass of infrastructure and expertise, including equipment manufacturers, technology 	<p>Availability and Access to Fibre</p> <ul style="list-style-type: none"> Timber supply uncertainty is an obstacle to growth, threat to survival, and/or barrier to entry for a number of value-added sectors.¹¹ Supply reductions continue to affect the industry. The availability of hardwood, old growth and selected species has decreased.¹² Some producers are concerned about forest policy and the control that larger forest companies have over fibre supply.¹³ <p>Relationship with Primary Manufacturers</p> <ul style="list-style-type: none"> Sawmill cutting programs are often dictated by structural product markets and raw materials are supplied to the industry in sizes, lengths, moisture contents, and finishes that are not necessarily suitable for the industry's markets.¹⁴ The relationships between primary and secondary manufacturers are not as collaborative as relationships between forest management and primary manufacturers.¹⁵ <p>Labour Shortages</p> <ul style="list-style-type: none"> Attracting, retaining and training skilled labour is a constraint that impacts industry growth. Investment in technology is common to help address skilled labour shortages, but is not always feasible for small to medium sized businesses.

⁶ Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

⁷ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC, June 27, 2013.

⁸ Ibid

⁹ Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

¹⁰ Wood Markets, "The Status and Potential of the Coastal Secondary Wood Products Industry," prepared for BC Wood Specialties Group Association, March 2007.

¹¹ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC, June 27, 2013.

¹² Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

¹³ Delong et al. "Overview of the Canadian Value-added Wood Products Sector and the Competitive Factors that Contribute to its Success," Canadian Journal of Forest Research 37: 2007.

¹⁴ Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

¹⁵ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC, June 27, 2013.

Internal Characteristics	Strengths	Weaknesses
	<ul style="list-style-type: none"> • Developers, architects, engineers, designers and many others.¹⁶ • The industry is interested in collaborating with sawmills to access lumber grades that match the right product application or manufacturing process.¹⁷ <p>Employees</p> <ul style="list-style-type: none"> • The industry has a high degree of managerial competence and expertise and provides superior after-sales service compared to global competitors.¹⁸ • The labour force is skilled and highly motivated.¹⁹ <p>Customisation Capabilities</p> <ul style="list-style-type: none"> • The industry's sectors use modern technology and have customisation capabilities that are comparable or superior to global competitors.²⁰ These capabilities help to differentiate Canadian products. <p>Success Stories</p> <ul style="list-style-type: none"> • There are several award winning examples of products that highlight the industry's product offerings and manufacturing capabilities. <p>Branding</p> <ul style="list-style-type: none"> • The 'Made in Canada' brand is a differentiator in several markets. • In some sectors, there is a greater inclination to buy domestic products.²¹ 	<ul style="list-style-type: none"> • Low enrolment has contributed to fewer academic and training programs dedicated to value-added sectors.²² <p>Product and Market Development</p> <ul style="list-style-type: none"> • Developing new products is challenging in the current business environment.²³ • There is a lack of in-house capacity and expertise for product and market development.²⁴ • Research and technology needs are not being met due to the industry's fragmentation, limited resources and capacity of small businesses for innovation and research.²⁵ • Fluctuations in lumber prices affect the competitiveness of some sectors and programs.

¹⁶ Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

¹⁷ R Kozak, et al., "Solid Wood Supply Impediments for Secondary Wood Producers in BC," The Forestry Chronicle 79.6: 2003.

¹⁸ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC," June 27, 2013.

¹⁹ Ray Schultz, "What is a Value-added Forest Sector?" for BC Forum on Forest Economics and Policy, February 2006.

²⁰ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC," June 27, 2013.

²¹ Michael J. Knell, Furniture Today, "Canada furniture sales climbing cyclically," October 22, 2014

²² Ibid.

²³ Francois Julien, "Canadian Value-added Sector Survey," FPInnovations, February 2012.

²⁴ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC," June 27, 2013.

²⁵ Ibid

External Factors	Opportunities	Threats
	<p>Market Growth</p> <ul style="list-style-type: none"> There are untapped growth opportunities in North America. In particular, economic improvement in the United States and increased construction activity have renewed interest in returning to the market. There are new opportunities in niche markets that are not as price sensitive as commodity markets.²⁶ The middle class is growing in developing countries. Higher density and urbanisation are expected to generate more demand for the industry's products.²⁷ <p>Foreign Exchange Rates</p> <ul style="list-style-type: none"> Most value-added exports are sold in US dollars. The depreciation of the Canadian dollar makes the pricing of Canadian products more competitive in international markets and comparatively cheaper than imports in domestic markets. <p>Free Trade Agreements</p> <ul style="list-style-type: none"> International free trade agreements are providing access to new markets and reducing tariffs and entry barriers. Agreements have been signed with markets such as Korea and the European Union, and negotiations continue with other countries.²⁸ <p>Government Support</p> <ul style="list-style-type: none"> Wood consumption encouragement policies, enacted across Canada and in some international markets, require all newly constructed publicly funded buildings such as schools, libraries or sports complexes to consider wood as the primary building material. 	<p>Economic Conditions</p> <ul style="list-style-type: none"> There is economic uncertainty and slower than expected growth and recovery in some global markets. <p>Competition</p> <ul style="list-style-type: none"> There is intense price-based competition for commoditised products from emerging markets with lower fibre, energy and labour costs. <p>Product Substitutes</p> <ul style="list-style-type: none"> There is rapid growth in product substitutes in sectors historically dominated by wood.²⁹ <p>Foreign Government Policies</p> <ul style="list-style-type: none"> Some foreign government policies and programs are limiting industry exports. For example, policies in Japan encourage the consumption of domestic wood over imports, and the Chinese National Timber Industry Association is working to limit imports from single markets such as Canada.³⁰ <p>Research and Development</p> <ul style="list-style-type: none"> Funding for industry research and development is limited and tends to be focused on larger forest industry sectors.³¹ <p>Ability to Attract Investment</p> <ul style="list-style-type: none"> The economic downturn and several decades of industry volatility have contributed to financial returns that are not attractive to many investors.³² <p>Changing Preferences</p> <ul style="list-style-type: none"> Consumers' behaviours and fashion trends are constantly changing and inventory management and managing change is critical for some sectors.³³

²⁶ Wood Markets, "The Status and Potential of the Coastal Secondary Wood Products Industry," prepared for BC Wood Specialties Group Association, March 2007.

²⁷ Ibid

²⁸ MSC Marketing Solutions Consulting, "Korea Market Evaluation and Strategy," prepared for FII, May 2014.

²⁹ Wood Markets, "The Status and Potential of the Coastal Secondary Wood Products Industry," prepared for BC Wood Specialties Group Association, March 2007.

³⁰ MSC Marketing Solutions Consulting, "Japan Market Evaluation and Strategy," prepared for FII, December 2013 and MSC Marketing Solutions Consulting, "China Market Evaluation and Strategy," prepared for FII, December 2013.

³¹ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC, June 27, 2013.

³² Woodbridge Associates, "Opportunity BC 2020: BC's Forest Industry," prepared for the Business Council of BC, October 2009.

³³ Francois Julien, "Canadian Value-added Sector Survey," FPIinnovations, February 2012.

External Factors	Opportunities	Threats
	<ul style="list-style-type: none"> Legislation and policies can create incentives for business and investment, research and development, education and skills training and marketing.³⁴ <p>Environmental Trends</p> <ul style="list-style-type: none"> Increased public awareness of the environment has led to increased demand for green products and services. Consumers are looking increasingly to eco-friendly, carbon neutral, and energy efficient building materials. Wood products offer a suitable option for these applications. There is evidence that links wood usage indoors to human health.³⁵ Wood products are increasingly being incorporated into healthcare environments to support patient recovery, school environments to support student learning, and in homes and offices.³⁶ <p>Industry Blogs and Social Media</p> <ul style="list-style-type: none"> Industry blogs and participation in social media such as Twitter, Facebook, Pinterest, are an efficient means for outreach and disseminating information to millions of global consumers. 	<p>Demographics</p> <ul style="list-style-type: none"> The aging population in developed countries is changing the demand for residential housing. Home ownership rates are decreasing in the United States. US National Housing Survey results showed homeownership rates decreasing and a growing preference by younger demographics towards renting instead of buying a home. This may reduce the demand for construction of single-unit family homes and increase demand for multi-unit residential construction.

³⁴ Ray Schultz, et al. "Growing the BC Interior Value-added Wood Sector," prepared for SIBAC," June 27, 2013.

³⁵ FPInnovations, "Wood and Human Health," available here:
https://fpinnovations.ca/MediaCentre/Brochures/Wood_Human_Health_final-single.pdf

³⁶ ReThinkWood, "Health and Well-being - ReThink Wood," available here:
http://www.rethinkwood.com/sites/default/files/BGWW_RTW_mod6_health.pdf

KEY SUCCESS AND RISK FACTORS

The key success and risk factors for industry growth that were identified based on interviews, survey responses and research are as follows:

Key success factors:

- Availability of quality fibre that meets the specifications required by the industry's markets.
- Use of modern technologies and customisation capabilities to differentiate the industry's products.
- Increased awareness, by customers and end-users, of the industry's product and service offerings in the target markets.
- Protection and defence of existing market share, and pursuit of new opportunities in the niche products and markets that offer the highest value.

Key risk factors:

- Price-based competition from emerging markets with lower fibre, energy and labour costs, and from wood product substitutes.
- Shortages of trained skilled labour.
- Industry fragmentation and the limited resources and capacity of small businesses to pursue research, marketing and innovation initiatives.

PROGRAMS AND INITIATIVES

There are programs that provide support for the value-added industry's market development. These programs are supported by a number of marketing associations, industry associations, government initiatives and partnerships from across Canada. These organisations primarily provide support in terms of:

- **Market development programs** Market development programs include trade missions, trade shows, industry partnerships, government relations and international trade support for value-added producers. Many of the programs support the development of new export markets, but some also work domestically to promote Canada's value-added products to the Canadian market. Examples of organisations that provide market development support include BC Wood, Forestry Innovation Investment, Ontario Wood Products Export Association, Quebec Wood Export Bureau, and FPIInnovations.
- **Training programs** Training programs are developed both internally for the value-added producers and externally for architects, construction project managers, builders, importers and designers. Internal courses are typically geared towards assisting value-added producers with technical support for manufacturing, business operations, training, and sales and marketing support. External courses focus on supporting the adoption of products through wood promotion and technical specification seminars for architects, builders, designers, and other consumers of value-added products.
- **Education and advocacy programs** Education and advocacy programs include ongoing promotion of wood as a building material both domestically and abroad. Education and advocacy programs can include promoting a culture of wood construction, working with authorities to develop building codes that support wood usage, or demonstrating the features of value-added products to promote product adoption.

Some examples of industry support from Canadian organisations are provided in Appendix A, and examples of wood encouragement programs in other jurisdictions are available in Appendix B.

INDUSTRY METRICS

There are no readily available performance metrics for the value-added wood products industry due to the lack of a clear and commonly agreed industry definitions and lack of alignment with standard industrial classifications. Publicly available information often includes primary manufacturing data, and manufacturers' survey results are often suppressed for confidentiality reasons. As a result, there are no consistent measurements of industry performance.

5. INDUSTRY SECTOR PROFILES

A short profile was developed for each of the six identified value-added industry sectors, namely remanufactured lumber, engineered wood products, packaged building solutions, millwork products, cabinets, and furniture. Each profile contains a description of the sector, highlights characteristics of organisations operating within the sector, identifies strengths and weaknesses of the sector, and comments on the sector's competitive environment. Cedar products are manufactured within each of the sectors; however, to highlight its unique characteristics, a separate profile was developed for the species.

The industry sector profiles are intended to provide information about the sectors. The market considerations are provided in the Market and Strategic Analysis sections of this report.

5.1 REMANUFACTURED LUMBER SECTOR

DESCRIPTION

The remanufactured lumber sector uses sawn lumber to produce semifinished and finished products. Remanufacturers put hardwood and softwood lumber through processes, such as resawing and kiln drying, that change product characteristics (thickness, width, length, or profile), or that join pieces together by finger joint or otherwise.³⁷ The sector's finished products are generally sold to wholesale distributors and building contractors. Semifinished products, such as veneer, cut stock and components, are also sold to downstream industry sectors for further processing into finished wood products. While many species may be represented in the remanufactured lumber segment, cedar plays a significant role in this aspect of the value added industry.

There are low levels of product differentiation within the sector due to the nature of the product offerings. The differentiation that does exist is related to quality and to attributes such as species, grades and sizes.

Data obtained from IBISWorld suggests that the annual revenue for the remanufactured lumber sector in Canada was estimated to be \$1.65 billion in 2014.³⁸ The sector's revenue is linked closely with construction activity, as most sales are to wholesalers and building contractors or other manufacturers. As a result, the sector experiences fewer sales from the retail industry, and demand tends to be slightly more volatile than demand for finished products from other sectors (such as millwork products and furniture).³⁹

KEY ORGANISATIONS

According to Random Lengths, there were approximately 112 remanufactured lumber businesses in Canada in 2013.⁴⁰ Most businesses were located in British Columbia, Quebec and Ontario (Table 7).

Table 7: Estimated Number of Remanufactured Lumber Businesses in Canada

British Columbia	Quebec	Ontario	Alberta	Manitoba	New Brunswick	Nova Scotia	Total
48% (31% Coast / 17% Interior)	22%	14%	6%	6%	2%	1%	100%

Source: Random Lengths, 2013 Big Book

³⁷ Canada Wood, "Value-added Products," available here http://www.canadawood.org/pro_value.php

³⁸ IBISWorld, "Millwork in Canada," June 2014. Cut stock and resawn lumber represented 31.3 percent of the \$5.2725 billion of millwork sector revenue in 2014.

³⁹ IBISWorld, "Millwork in Canada," June 2014

⁴⁰ Random Lengths, 2013 Big Book

The sector tends to be characterised by many small, privately owned businesses. Some remanufacturers own and operate processing facilities, while others use the services of custom cut mills and processing facilities.

INDUSTRY LIFE CYCLE

The remanufactured lumber sector is in the mature stage of the industry life cycle. This suggests that there may be modest growth in the sector and also broad acceptance of the sector's products.⁴¹ It is also consistent with low levels of product differentiation and pressure to be cost-competitive.

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the remanufactured lumber sector are presented in Table 8.

Table 8: Strengths and Weaknesses of the Remanufactured Lumber Sector

Strengths	Weaknesses
<p>Relationships The sector has some long-term supply relationships with primary lumber producers that provide access to quality fibre. There are relationships with distribution networks that help ensure quality of service.</p> <p>Facilities Production facilities within the sector operate efficiently and are cost competitive with producers in the United States.</p> <p>Reputation The sector has a reputation for supplying a range of quality products, and has quality control practices that help ensure product consistency.</p> <p>Service Offerings The sector offers a range of services and produces a broad range of products to customers' specifications.</p> <p>Customer Service Driven Remanufacturers are flexible and customer oriented. Customer orders are often supplied as a mix of products delivered in smaller quantities.</p>	<p>Dependence on Sawmills Remanufacturers are heavily dependent on sawmills to supply lumber.</p> <p>Availability of Raw Material Sawmill cutting programs and schedules dictate the availability of lumber species and lengths. These programs are often focused on extracting structural lumber products, and the lumber specifications do not necessarily match the sector's product and market requirements. As a result, raw material shortages can occur which affect the timing and availability of products.</p> <p>Regulation Export tariffs, cost of certifications, building material regulations, and taxes are deterrents to growth in domestic and global markets.</p> <p>Financing The availability of financing and market research can be barriers to expansion in new and existing markets.</p>

Source: Interview and survey responses, unless otherwise noted.

COMPETITOR ASSESSMENT

Canadian remanufactured lumber producers compete in a global market. The sector faces price-based competitive pressure from non-wood products and from wood product imports from emerging markets (such as China and countries in South America) which operate with lower fibre, energy and labour costs. To compete, Canadian producers are focused on finding efficiencies, reducing costs, and making continuous improvements. In addition, Canadian producers try to differentiate themselves from

⁴¹ IBISWorld, "Millwork in Canada," June 2014

competitors by features such as product attributes, service offerings, access to distribution networks and close proximity to markets.

SUMMARY

The remanufactured lumber sector is in the mature stage of the industry life cycle and produces a broad range of products that are consumed in global markets. The sector faces price-based competition from imports from countries with lower fibre, energy and labour costs, and also from non-wood products. To remain competitive the sector must focus on finding operating efficiencies and on building relationships with raw material suppliers. Growth in the sector is constrained by the availability of lumber in sizes and specifications that meet the sector's product and market requirements.

5.2 ENGINEERED WOOD PRODUCTS SECTOR

DESCRIPTION

Engineered wood products include structural wood members and reconstituted wood panel products; however, for the purposes of this study only glue laminated timber (glulam), laminated veneer lumber (LVL), and cross laminated timber (CLT) products were considered.

Glulam is created by adhesively bonding individual pieces of lumber or structural composite lumber. The products can easily be shaped into forms ranging from straight beams to complex curved members, and are used in a variety of structural and design applications in both residential and non-residential construction.

LVL is a structural composite lumber product and is produced by bonding thin wood veneers that are then sawn to desired dimensions and lengths depending on the end use. Popular LVL applications include headers, beams, scaffold planking, and flange material for prefabricated wood I-joists.⁴²

CLT is a prefabricated engineered wood panel made from sawn or structural composite lumber that is laminated by gluing layers together with structural adhesives. The large-scale panels are strong and light weight, and provide a cost effective and environmentally friendly alternative to other building materials, such as concrete and steel. CLT is used in applications ranging from roof, floor or wall panels to crane mats and platforms for natural resource industries.^{43,44}

Glulam, LVL and CLT were developed in Europe, and have been widely adopted there in residential and large scale building projects. In North America, glulam and LVL are relatively well-established while CLT has only recently been introduced. As a result CLT is not included in building codes in North America, and there are regulatory restrictions on its use. At present, it is not explicitly prohibited and may be used under an “alternative solution” allowance subject to approval by an engineer.

Regulatory changes with respect to the use of CLT are being introduced in North America. The 2015 International Building Code will recognise CLT products manufactured according to specified standards and CLT walls and floors may be permitted in all types of combustible construction.⁴⁵ CLT will also be added as an addendum to the US building code in 2016, thereby eliminating the need for engineer approval. It is anticipated that CLT will be added to the Canadian building code by 2018.

Construction CLT products are also benefiting from regulatory changes in Canada that allow wood buildings to exceed four storeys. The BC Building Code was revised in 2009 to allow mid-rise wood-frame construction. Quebec has also allowed taller wood-frame buildings. Building codes have been amended in Ontario to allow six-storey wood construction⁴⁶ and similar changes are anticipated to the Canadian National Building Code by 2015.⁴⁷

The demand for Glulam, LVL and CLT products is currently influenced heavily by engineers, architects and contractors, particularly with respect to use in mid-rise residential, school, public building and

⁴² APA - Engineered Wood Association, Structural Composite Lumber (SCL), available here <http://www.apawood.org/structural-composite-lumber#laminated-veneer-lumber>

⁴³ Ibid

⁴⁴ APA - Engineered Wood Association, CLT, accessed here <http://www.apawood.org/CLT>

⁴⁵ Available here: www.masstimber.com

⁴⁶ Legislative Assembly of Ontario, “Bill 13, Ontario Forestry Industry Revitalization Act (Height of Wood Frame Buildings), 2013” available here: http://www.ontla.on.ca/web/bills/bills_detail.do?locale=en&Intranet&BillID=2727

⁴⁷ Wood First - Highlight Five Years of Accomplishments, 2009-2014

recreational facility construction. In 2013, approximately half of glulam production in North America was used in non-residential construction and industrial applications.^{48 49}

KEY ORGANISATIONS

There are approximately 46 manufacturers of Glulam and LVL in Canada and the United States, 12 of which are in Canada. (Table 9). While Canadian producers represent a quarter of manufacturers, they account for less than 10 percent of the volume of production.^{47,48}

Table 9: Number of Glulam, LVL and CLT Manufacturers in Canada and North America

	Quebec	Alberta	British Columbia	Total in Canada	Total in Canada and the United States
Number of Manufacturers	7*	3*	2*	12*	49*
Glulam	<ul style="list-style-type: none"> • Architecture Toubois • Art Massif Structure De Bois • Global LVL • Goodfellow • Nordic Engineered Wood** • Tecolam Inc 	<ul style="list-style-type: none"> • Boucher Brothers Lumber Ltd • Western Archrib (Alberta / Manitoba) 	<ul style="list-style-type: none"> • FraserWood • Structurlam Products LP** 	10	35
LVL	<ul style="list-style-type: none"> • Global LVL 	<ul style="list-style-type: none"> • West Fraser LVL 		2	11
CLT	<ul style="list-style-type: none"> • Nordic Engineered Wood* 		<ul style="list-style-type: none"> • Structurlam Products LP** 	2	3

Source: APA – Engineered Wood Association, Structural Panel and Engineered Wood Yearbook, April 2014.

**Note that the number of manufacturers by product and the total number of manufacturers vary because some manufacturers produce more than one product. **Manufacturer produces both Glulam and LVL or CLT*

There are two companies that manufacture CLT products in Canada, and one company that manufactures CLT products in the United States. These companies are privately owned and production volume information is not publicly available.

INDUSTRY LIFE CYCLE

Glulam beams and LVL are in the mature stage of the industry life cycle, and products are well established in domestic and international markets. There is some growth in the sector, but the production and markets in North America and parts of Europe are generally considered to be in balance. CLT, on the other hand, is in the growth stage of the industry life cycle, and is increasingly being considered for use in non-residential construction and in particular for the mid-rise wood frame construction.

⁴⁸ APA – Engineered Wood Association, Structural Panel and Engineered Wood Yearbook, April 2014

⁴⁹ APA - Engineered Wood Association, Glulam, available here: <http://www.apawood.org/glulam>

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the engineered wood products sector are summarised in Table 10.

Table 10: Strengths and Weaknesses of the Engineered Wood Products Sector

Strengths	Weaknesses
<p>Market Acceptance Engineered wood products are being used increasingly in new applications, such as flooring, roofing and non-residential and commercial construction. The products are cost effective and can reduce construction time compared with other non-wood building materials.</p> <p>CLT is growing in popularity in developed countries, and has made inroads into areas where concrete and steel were formerly used exclusively.</p> <p>Product Characteristics Engineered wood products have several advantages over steel (namely natural beauty and a higher strength to weight ratio) and concrete (namely, prefabrication and ease of assembly on-site).</p> <p>Environment Products offer carbon neutral structural solutions for public and commercial buildings.</p> <p>Relationships The sector collaborates with architects and engineers, and assists in product design.</p> <p>Value of the Resource The value of the resource can be increased by taking lower grades of fibre that were previously destined for pulp production, pallet or forming applications and producing a structural product.</p>	<p>Market Balance The markets for glulam in North America and parts of Europe are in balance. There is opportunity for greater market exposure and product awareness of the design capabilities and unique product attributes in North America.</p> <p>Perception There is a market perception that the products are more expensive than product substitutes.</p> <p>Regulatory Approvals The process for legislating amendments to North American building codes is slow, and making changes to building materials may take many years.</p> <p>Management Expertise Production of engineered wood products can be more design and management intensive, which requires management and design expertise and skilled labour.</p> <p>Costs Transportation costs may be high depending on the size and scale of the products, and may discourage the pursuit of opportunities in export markets.</p>

Source: Interview and survey responses, unless otherwise noted.

COMPETITOR ASSESSMENT

Canadian producers compete primarily with domestic and US manufacturers; however, there is some threat of competition from European producers.

Glulam, LVL and CLT are generally standardised products that offer cost-effective alternatives to other wood products (such as solid lumber and timbers) and to traditional building materials (such as concrete, masonry and steel). The products compete based on cost competitiveness, design flexibility, environmental and structural performance, and construction time savings.⁵⁰ In industrial applications,

⁵⁰ FPInnovations, "Cross Laminated Timber: a Primer," 2010

such as bridge decks and equipment platforms, commodity CLT products compete with mats made of solid wood that are bolted together to create a stable surface.

The markets for standard glulam, LVL and CLT products are regional and are relatively price sensitive, so the size and weight of the products and associated high transportation costs may provide local producers with a cost advantage over imports from other regions. There is also a niche market for customised glulam and CLT products because the products can be unique and visually appealing, and can provide design flexibility and construction cost savings due to shorter installation times. The niche markets are relatively price insensitive.

Competition in the CLT market is expected to increase with greater market exposure and product adoption in Canada and the United States. For example, in 2014, the Idaho Group entered into a joint venture with KHL, the Austrian company credited with inventing CLT, to import CLT into the US from Europe and to begin domestic manufacturing within 24 to 36 months.^{51,52} Also, Riddle Laminators has received funding and plans to construct a pilot manufacturing line for cross-laminated timbers at its plant in Oregon.⁵³

SUMMARY

The engineered wood products sector manufactures both standardised and custom glulam, LVL and CLT products. The glulam and LVL products are in the mature stage of the industry life cycle, and the products and global markets are considered to be in balance. The markets for standardised engineered wood products are price sensitive and tend to be regional, due to the high costs associated with transporting the large products over long distances. CLT products are in the early stages of the industry life cycle, particularly for uses in construction. There is some demand for custom glulam and CLT in architectural and design applications, where price is not the primary consideration. As building codes and regulations are amended, and as product adoption and market awareness increase, demand for these products will increase. However, with increasing demand the sector's ability to supply products and to capitalise on market opportunities may be limited by its production capacity.

⁵¹ The Spokesmen Review, available here: <http://www.spokesman.com/stories/2014/mar/19/idaho-forest-group-to-make-cross-laminated-timber/>

⁵² Available here: <http://flatheadbeacon.com/2014/05/15/breaking-into-the-cross-laminated-timber-industry/>

⁵³ Building-Products.com, available here: <http://www.building-products.com/October-2014/DR-Johnson-Gets-Grant-to-Develop-CLT-Plant/>

5.3 PACKAGED BUILDING SOLUTIONS SECTOR

DESCRIPTION

The packaged building solutions sector supplies complete building packages, hybrid structures, building sections and components to various market segments. For the purposes of this study, the sector is limited to producers of prefabricated wood buildings and sections, and producers of log and timber buildings.

Prefabricated wood buildings and sections are manufactured in facilities and transported to building sites for final assembly. Product offerings include both budget and luxury product lines. Recent advances in building systems and transportation have created new opportunities for multi-storey structures and increased height.

The demand for packaged building solutions is influenced by the level of new residential construction, and by consumer preferences and income levels. Prefabricated homes have a relatively small share of the residential market in Canada; however, there is demand in other applications, particularly in rural and remote areas. Those applications include site buildings, temporary and semi-permanent accommodation and low cost housing. The sector is working to diversify its product offerings by providing high-end solutions, offering home building kits, and tailoring solutions for specific market segments (such as vacation and secondary homes). Similarly, log homes and complexes have a small share of the residential market but are popular in recreational and resort areas for use as ski chalets and fishing lodges. Other common applications for packaged building solutions include home extension applications (for example, outdoor living areas and storage areas) and for commercial and institutional applications in rural and remote areas.

Log homes and other types of prefabricated buildings are commonly found in less densely populated areas and in northern regions. In contrast, residential timber frame and hybrid structures are more common in Canadian urban areas where they are used for single and multi-unit dwellings, commercial buildings and institutional buildings.

Most products are sold through home builders, distributors and home centres, and are typically made to order. As a result, producers tend to not hold inventory, as building packages require a great deal of customisation.

The market for packaged building solutions tends to be regional, as the size and weight of the products are not conducive to shipping over long distances. In addition, design limitations and regulatory requirements may restrict the types of structures that may be built using a packaged building solution. Consequently, potential export opportunities for these products are limited. (However, some manufacturers of high value products, such as log homes, have had success in exporting to Europe and other overseas markets.)

The annual revenue in Canada for the packaged building solutions sector was estimated to be \$1.5 billion in 2013.⁵⁴

KEY ORGANISATIONS

Statistics Canada estimates that there are 223 establishments in Canada that are primarily engaged in manufacturing prefabricated wood buildings and log cabins and complexes.⁵⁵ Over half of these

⁵⁴ Canadian Manufactured Housing Institute, Manufactured Building Survey, October 2014, available here: http://www.cmhi.ca/sites/default/files/cmhi_2013_annual_report.pdf

⁵⁵ Statistics Canada, Annual Survey of Manufacturing and Logging Industries - 2013, Table 301-0006 Principal statistics for manufacturing industries, by NAICS

manufacturers are located in Ontario and Quebec, with one-third being located in Alberta and British Columbia. The remainder are located in Manitoba, Saskatchewan, New Brunswick and Nova Scotia.

Most producers are small to medium sized establishments employing fewer than 50 people.

INDUSTRY LIFE CYCLE

The structural building products sector is in the mature stage of the product life cycle. There is some growth in the sector and the products are broadly accepted within their respective market segments. The exception to this are standard prefabricated homes, which have a negative perception in the marketplace and which are losing market share to site built homes. There are some high value prefabricated buildings that are finding market share in specific niches in the US and Asia.

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the packaged building solutions sector are summarised in Table 11.

Table 11: Strengths and Weaknesses of the Packaged Building Solutions Sector

Strengths	Weaknesses
<p>Green Building Construction Manufacturers are focusing on creating more energy-efficient buildings that use renewable materials.</p> <p>Product Acceptance There is acceptance of mass timber products by architecture and engineering communities for both appearance and structural properties.</p> <p>Diverse Product Offerings Manufacturers are able to offer different types of units and components, and can customise solutions through computer-aided design capabilities.</p> <p>Advanced Building Systems Advanced building systems create unique designs for luxury and resort market segments.</p> <p>Staff Capabilities Sales and design staff are highly skilled and service oriented, and manufacture products customised for specific applications and niche markets.</p> <p>Higher End Products Some manufacturers are moving toward higher-end products. Technological advances and new techniques, such as panelisation and the use of modules, allow manufacturers to offer more architectural styles and finishes.</p> <p>Full Services Complete services are offered from the planning phase through installation and maintenance.</p> <p>Aging Demographic Aging populations in developed countries are creating opportunities for more retirement and second homes. For example, "Granny Pods" are meeting the growing demand for housing for the elderly. These are small, self-contained units that can be placed near a primary residence, and are designed with amenities such as safety rails, first aid kits, and special floors to help prevent falls.</p>	<p>Skilled Labour Shortages Products have a large labour component due to assembly, customisation and finishing requirements.</p> <p>In export markets where concrete residential construction is common there are shortages of building trades people that are capable of finishing packaged homes.</p> <p>Product Acceptance Wood frame and timber is not commonly used in residential construction in markets outside of North America.</p> <p>Negative Market Perception There is a misperception among some consumers that prefabricated homes are poorly constructed and of lower quality.</p> <p>Building Codes and Regulatory Requirements are demanding higher energy efficiency performance from log walls, and are threatening to eliminate the small profiled log building system as an option, even for seasonal or second homes.</p> <p>Building codes and regulatory requirements differ between countries, and between jurisdictions within a country.</p> <p>Trade Barriers There are tariff and non-tariff barriers that apply to exports of wood-fabricated homes to the United States and other markets.</p> <p>Support for Market Outreach There is limited support for market research to help develop product acceptance in international markets.</p> <p>Non-wood Substitutes Wood frame products are not as cost competitive as some of the low cost non-wood packaged building solutions (e.g. composites, plastics).</p>

COMPETITOR ASSESSMENT

Prefabricated homes are targeted at price sensitive buyers, and compete with apartment rentals, condominiums and townhomes, mid-rise residential as well as traditional site built homes. Price is the primary differentiator between prefabricated homes and site built homes. In an effort to improve competitiveness, manufacturers are offering more features and greater customisation. These strategies are also aimed at improving the perception of the quality of prefabricated products, which is an important factor in customer choice.

Log and timber buildings also compete with single and multi-unit residential and commercial steel and concrete construction but face less price-based competition due to their unique appearance and structural features.

Competitive advantages in the packaged building solutions sector arise from the scale of operations and by proximity to materials and markets. Manufacturers that are located near raw materials and in close proximity to consumer markets tend to have cost advantages due to the high cost of transporting inputs and products long distances. Similarly, the manufacturing process for larger operations allows for efficiencies that may result in lower unit costs. Small manufacturers are more likely to focus on niche markets that are less price sensitive.

SUMMARY

The packaged building solutions sector manufactures a variety of customised prefabricated buildings and sections and log homes and complexes. The markets for these products tend to be regional due to the high costs associated with transporting building packages over long distances. The log and timber building solutions are in the mature stage of the industry life cycle and there is demand in specific market segments. Building codes and regulatory requirements differ between countries and within regions. The ability to remain current and to comply with different requirements may limit the sector's ability to expand into new markets.

5.4 MILLWORK PRODUCTS SECTOR

DESCRIPTION

The millwork products sector produces interior and exterior doors, windows, flooring, moulding, architectural woodwork, turned wood and stairs. Standard millwork products that do not require customisation, such as flooring and moulding, are manufactured using highly automated processes, while products such as doors and windows that require customisation have a higher labour component and are manufactured using processes that are not as easily automated.

Demand is driven by construction and remodelling activity. About two-thirds of millwork products are used for residential construction, while commercial and industrial construction account for the remaining one-third of industry sales.⁵⁶ There is a strong preference for wood products in residential applications due to aesthetics such as appearance and feel. These factors are less important in commercial and industrial applications where decisions are influenced more by price and durability.

There are niche markets for custom design and custom products in the residential and commercial market segments. These segments are not as price sensitive, and producers receive higher margins for their products; however, the quantities involved in these segments are relatively small.

According to IBISWorld, the annual revenue for the millwork products sector in Canada was estimated to be \$3.65 billion in 2014.⁵⁷ Production of wood windows and doors and wood flooring accounted for approximately 55 percent and 45 percent of the sector's revenue respectively.⁵⁸

KEY ORGANISATIONS

Statistics Canada estimates there are 1,707 millwork products establishments in Canada.⁵⁹ Ontario accounts for approximately 38.5 percent of establishments, followed by Quebec and British Columbia at 27.6 percent and 22.3 percent respectively. The remaining provinces each have less than 10 percent of establishments.⁶⁰

The millwork products sector is characterised by a large number of small to medium sized privately owned businesses. Manufacturers tend to have fewer than 100 employees, and most have fewer than 50. Large companies operating within the sector include Loewen, Jeld-Wen, All Weather Window, Ply Gem, Masonite, and Goodfellow.

INDUSTRY LIFE CYCLE

The millwork products sector is in the mature stage of the industry life cycle, and is characterised by steady growth, widespread market acceptance of the sector's products, and a moderate level of technological change.⁶¹ There is a smaller market for custom designs and products in some residential and commercial market segments but, in general, product differentiation is low.

In some commercial and industrial applications where price and durability are more influential than appearance, the sector is losing market share to substitute materials. For example, garage doors have

⁵⁶ IBISWorld, "Millwork in Canada," June 2014.

⁵⁷ Ibid. The estimate excludes cut stock and resawn lumber revenue.

⁵⁸ Ibid

⁵⁹ Statistics Canada. Table 551-0006 - Canadian business patterns, location counts, employment size and NAICS, national industries, by Canada and provinces, June 2014, semi-annual (number)

⁶⁰ IBISWorld, "Millwork in Canada," June 2014

⁶¹ Ibid

experienced a shift in consumer preference from wood to steel, and sales of vinyl window frames are growing at a faster rate than those of metal or wood.⁶²

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the industry's millwork products sector are presented in Table 12.

Table 12: Strengths and Weaknesses of the Millwork Products Sector

Strengths	Weaknesses
<p>Made in Canada Brand Consumers are showing a greater inclination to buy local products. In flooring markets, North American consumers perceive flooring made in Canada as being of higher quality than products from Asian and the United States.</p> <p>Product Attributes Wood's unique structural and aesthetic properties have kept the industry from decline. Consumers' preference for wood is evident in flooring markets, where product substitutes compete by trying to imitate the wood appearance.</p> <p>Variety of Products Millwork producers supply a diverse product range, and have introduced more customisation to maintain market share. Manufacturers offer a number of materials, design, shape, size, and finish options to customers.</p> <p>Price Premium for Quality and Design Producers generally achieve good returns, particularly for premium wood windows and doors. Growth is anticipated from the architectural segment.</p> <p>Reputation The sector has a reputation for quality, design and customer service. Branding is used to identify and differentiate products.</p> <p>Product Development New millwork products continue to be introduced. Advances in material technology, design capabilities and consumer preferences have led to new wood composites, engineered products, sophisticated print technologies and more durable finishes.</p> <p>Relationships Long-term relationships with customers are key. Producers tend to locate within close proximity to population centres to take advantage of location benefits, namely market access, transportation savings and customer service.</p>	<p>Standardised Products Millwork products are largely standardised. Product substitution is motivated by price-based competition or, to a lesser degree, by fashion trends.</p> <p>Customised Product Awareness There is limited promotion and awareness of the sector's niche products, customisation capabilities and service offerings among architects, designers and builders.</p> <p>Market Exposure Small businesses have limited access and market exposure as compared with larger companies that have more resources.</p> <p>Networking There is no forum for connecting specialised project requests with customised solution capabilities.</p> <p>Raw Material Shortages There are shortages in the availability of clear fibre grades for niche products.</p> <p>Producers are importing hardwood species from the United States for use in flooring products.</p> <p>Price Competition There is growing competition from international markets and from wood substitutes that are lower priced and offer greater durability.</p> <p>Resources Small businesses are constrained by limited financial and management resources.</p> <p>Regulatory Requirements Regulatory changes for physical performance, energy efficiency and testing requirements, both domestically and internationally, present challenges for small businesses.</p>

Source: Interview and survey responses, unless otherwise noted.

⁶² IBISWorld, "Millwork in Canada," June 2014.

COMPETITOR ASSESSMENT

Since the majority of products are purchased for the residential construction market, manufacturers tend to locate near to densely populated areas. As a result, most competition within the millwork products sector is from regional suppliers. The only international competition of note is from Asian manufacturers that have had some success in exporting millwork products to the US market.⁶³

To be competitive, manufacturers must have the ability to offer the lower prices, deliver a range of high quality products and secure supply contracts with building contractors and wholesalers.

The sector faces strong competition from substitutes, such as aluminum, steel, vinyl and fibreglass, which are often cost competitive, more durable and require less maintenance. (For example, due to its low cost, vinyl is one of the fastest growing products in the window frame market.⁶⁴)

SUMMARY

The millwork products sector is in the mature stage of the industry's life cycle and produces a variety of standardised and custom design products. The millwork products markets are regional in nature, and residential applications are the largest market segment. The sector faces strong competition from product substitutes. Wood is preferred among residential segments because of its aesthetic qualities, while commercial and industrial segments tend to be more price sensitive and focus on product durability and maintenance requirements. There is a growing preference within Canada for 'Made in Canada' brand products. A greater market awareness of the sector's niche products customisation capabilities and service offerings by architects, engineers and builders may present opportunities for growth in the sector.

⁶³ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

⁶⁴ IBISWorld, "Millwork in Canada," June 2014

5.5 CABINETS SECTOR

DESCRIPTION

The cabinets sector produces cabinets, vanities and countertop products that are made of wood and wood coverings and are supplied to customers as stock items, semi-custom or custom manufactured items.

Demand for cabinets is primarily for residential construction and renovation. The retail home improvement segment represents about 47.5 percent of the market, followed by distributors and building contractors at 25.8 percent and 12.3 percent respectively.⁶⁵ Stock items generally appeal to more price sensitive consumers, while architects and interior designers tend to favour custom built products over stock items.

According to IBISWorld, the annual revenue in Canada for the cabinets sector was estimated to be \$2.9 billion in 2014.⁶⁶ About 60 percent of the sector's revenue comes from stock cabinets. Kitchen cabinets account for approximately 48 percent of the sector's revenue, followed by bathroom vanities at 30 percent, countertops at 7.5 percent, with other cabinetwork and accessories making up the balance.⁶⁷

KEY ORGANISATIONS

Statistics Canada estimates there are 2,531 cabinet establishments in Canada.⁶⁸ Ontario accounts for 34 percent of establishments, followed by Quebec and BC at 29.3 percent and 16.1 percent respectively. The remaining provinces each have less than 10 percent of establishments.⁶⁹

The cabinets sector in Canada is characterised by small and medium sized businesses. Most are privately owned businesses that build networks to supply local retailers and distributors.

There are a few large international organisations operating in Canada, such as Fortune Brands Home & Security. Other international companies have left the sector, or have relocated to offshore markets and export their products back to the Canadian market.

INDUSTRY LIFE CYCLE

The cabinets sector in Canada is in the decline stage of the industry life cycle.⁷⁰ Cabinets tend to be standardised products with limited product differentiation. As such, competition from countries with low fibre, labour and energy costs is leading to increased imports of cabinets from other jurisdictions and to reduced market share for Canadian producers. In response, Canadian producers have tried to find efficiencies in their production processes, and are increasingly focusing on the production of custom designed cabinets.

⁶⁵ IBISWorld, "Cabinet & Vanity Manufacturing in Canada," July 2014

⁶⁶ IBISWorld, Cabinet & Vanity Manufacturing in Canada, July 2014

⁶⁷ Ibid

⁶⁸ Statistics Canada. Table 551-0006 - Canadian business patterns, location counts, employment size and NAICS, national industries, by Canada and provinces, June 2014, semi-annual (number)

⁶⁹ IBISWorld, Cabinet & Vanity Manufacturing in Canada, July 2014

⁷⁰ Ibid

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the cabinets sector are presented in Table 13.

Table 13: Strengths and Weaknesses of the Cabinets Sector

Strengths	Weaknesses
<p>Custom Capabilities The sector has custom design and manufacturing capabilities that deliver quality products which can conform to current fashion trends and meet measurement specifications.</p> <p>Customer Service Manufacturers are also able to gain and retain customers through service offerings. The sector has a reputation for customer service and offering product installations.</p> <p>Price Premium for Quality and Design There is a customer segment for Canadian manufacturers that create products of exceptional quality or innovative design. The segment often pays a premium for these products.</p> <p>Advanced Technologies and New Materials There is increased use of technologies for all aspects of design, manufacturing, business and relationships. These include use of technologies such as computer-assisted design and manufacturing technology.</p> <p>New adhesives are replacing nails in the assembly of wood cabinets. Laser edge banding, a new technology that uses layers to bond edges and panels without adhesives, is also being introduced.⁷¹</p>	<p>Product Differentiation The sector operates in a very competitive environment with limited product differentiation.</p> <p>Price Competition Pricing pressure and consumer preferences toward more affordable imports are reducing the sector's market share.</p> <p>Skilled Labour There are shortages of qualified carpenters and designers.</p> <p>Access to Markets Cabinets tend to be large and bulky, adding to transportation costs and making shipments of assembled cabinets to international markets difficult. Trade tariffs are also a barrier in some markets.</p> <p>Distribution Networks Smaller manufacturers may not have knowledge of or access to distribution networks in international markets.</p>

Source: Interview and survey responses, unless otherwise noted.

COMPETITOR ASSESSMENT

Businesses compete in domestic markets based on price, quality, product selection and design.⁷² Increases in the volume of imports of ready-to-assemble cabinets from low cost manufacturers in Asia and Mexico are adversely affecting the sector's competitiveness. However, unique designs and new manufacturing technologies are helping the sector compete with products of higher quality and innovative design in niche markets.

⁷¹IBISWorld, Cabinet and Vanity Manufacturing in Canada, July 2014

⁷² Ibid

SUMMARY

The cabinet sector produces standard and custom products for regional residential and renovation market segments. The sector is in the decline stage of the life cycle, and is losing market share to lower priced imports from emerging markets. Larger manufacturers are moving production offshore and exporting products to Canada, creating more competition for local producers. Consumers of standard products tend to be price sensitive, and there is little product differentiation within the sector. Domestic producers are able to retain customers through customer service offerings, such as product installations. There is a small market segment for custom designed cabinets. The sector exports some products to the United States; however, expansion into other markets is challenging due to trade tariffs, limited access to distribution networks and the high transportation costs associated with shipping assembled cabinets.

5.6 FURNITURE SECTOR

DESCRIPTION

The furniture sector produces wood furniture and components for household, office and institutional applications. Wood furniture is primarily produced from hardwood species, such as maple, oak, birch and ash. Products in the furniture sector can be produced as stock items, semi-custom or custom manufactured items.

There are different drivers of demand for household, office and institutional furniture. Demand for household furniture is largely influenced by new home construction, home sales, and disposable income. For offices and institutions, demand is more sensitive to new business formation, corporate profits, and job growth.⁷³

MNP estimates the annual revenue for the furniture sector in Canada was close to \$2.7 billion in 2013.⁷⁴

KEY ORGANISATIONS

According to Statistics Canada, there were approximately 2,409 furniture manufacturing establishments in Canada.⁷⁵ Ontario and Quebec accounts for most of the establishments, with smaller establishments in the other provinces.

Furniture manufacturers range from local artisans to large multinational organisations. The Canadian furniture manufacturing sector primarily includes privately owned small and medium sized businesses, although some international companies, such as Ashley Furniture, also have operations in Canada.

INDUSTRY LIFE CYCLE

The furniture sector is in the decline stage of the industry life cycle. It offers a variety of styles, but has limited product differentiation. The low product differentiation has allowed countries with low fibre, labour and energy costs to produce furniture at a relatively low-cost compared to Canadian producers. There are some opportunities for niche products that cater to small volume, high-value markets.

⁷³ First Research, "US Furniture Manufacturing," December 2014

⁷⁴ MNP estimate based on reported growth of 3.4 percent growth over 2012 revenue.

Source: Michael J. Knell, Furniture Today, "Canada furniture sales climbing cyclically," October 22, 2014

Source: Statistics Canada, Annual Survey of Manufacturing and Logging Industries - 2013, Table 301-0006 Principal statistics for manufacturing industries, by NAICS

⁷⁵ Statistics Canada, Annual Survey of Manufacturing and Logging Industries - 2013, Table 301-0006 Principal statistics for manufacturing industries, by NAICS

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the furniture sector are presented in Table 14.

Table 14: Strengths and Weaknesses of the Furniture Sector

Strengths	Weaknesses
<p>Made in Canada Branding Canadian furniture retailers are showing a greater inclination to buy local products, which has partially offset the industry's decline as an exporter.⁷⁶</p> <p>Product and Service Quality The sector competes by providing a range of attractive products, customer service, and timely delivery. A range of design and finish options are offered.</p> <p>Solid Wood Premium There are regional markets for custom solid wood products that generally sell at a premium.</p> <p>Small Order Quantities The sector is able to supply products in small order quantities.</p> <p>Raw Materials New glues are replacing nails in assembly of wood furniture. Laser edge banding, a new technology that uses layers to bond edges and panels without adhesives, is also being introduced.⁷⁷</p>	<p>Retail Competition Retailers are demanding price concessions from Canadian manufacturers as price competition in the retail space intensifies.⁷⁸</p> <p>Loss of Domestic Market Share Consumers are not investing in durable long lasting furniture.</p> <p>Products priced in the mid-range price points are losing market share to imports from countries with lower labour costs.⁷⁹</p> <p>Access to Markets Furniture tends to be large and bulky, adding to transportation costs and making shipments of assembled products to international markets difficult. Trade tariffs are also a barrier in some markets.</p> <p>Number of Manufacturers The number of manufacturers is declining due to offshoring, industry consolidation, and business closures.</p> <p>Regulatory Requirements Regulatory changes for physical performance, energy efficiency and testing requirements, both domestically and internationally, are onerous for small businesses.</p>

Source: Interview and survey responses, unless otherwise noted.

COMPETITOR ASSESSMENT

The furniture sector is saturated with a high number of producers which has resulted in a highly competitive market. The large number of products is putting downward pressure on prices, which, in turn, is reducing margins for Canadian producers.

To remain competitive, Canadian furniture manufacturers have either lowered prices or differentiated themselves through branding, higher quality products and customer service.⁸⁰ In addition, Canadian furniture producers are competing on product design, ergonomics, and aesthetic features that provide extra value to consumers.

⁷⁶ Michael J. Knell, Furniture Today, "Canada furniture sales climbing cyclically," October 22, 2014

⁷⁷ IBISWorld, "Household Furniture Manufacturing in the US," July 2014

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ First Research, "US Furniture Manufacturing," December 2014

SUMMARY

The furniture sector produces wood furniture in standard sizes and custom designs which is produced primarily from hardwood species. Markets for furniture are regional and are influenced by new residential construction and new business formations. The sector is in the decline stage of the industry life cycle and is also losing domestic market share to lower priced imports. There is some demand for niche products in small market segments. Domestic producers are able to retain customers by offering lower prices or differentiating themselves through branding, higher quality products and customer service.

5.7 CEDAR SPECIES

DESCRIPTION

Cedar is a species valued for its natural beauty, durability and aesthetic appeal. Cedar is versatile and is suitable for higher valued products due to its lightweight, uniform texture, straight grain, resistance to decay and insects, and resin-free characteristics. Cedar is valued throughout the world and in higher value markets such as the United States, Europe and Japan.

Cedar is manufactured into a broad range of products and is used in both interior and exterior applications. Products in indoor applications include cedar panelling, doors and windows, blinds, shutters, and saunas. Among the products used in outdoor applications are traditional products such as decking, siding, and fencing, and niche or specialty products such as timbers, furniture, garage doors, gazebos, and pergolas. According to industry interviews, there is also growing demand for cedar in outdoor living area projects, such as high-end outdoor kitchens or patios.

The annual revenue for the cedar sector in Canada is not publicly available. However, in 2013 the total export value of lumber and siding cedar products was estimated at \$689 million (our understanding is that the total value in 2014 was approximately \$836 million).⁸¹

KEY ORGANISATIONS

Cedar is a popular species that is often used by many of the value-added industry sectors. According to the BC Secondary Manufacturing Survey, cedar comprised the majority of wood used by approximately 36 percent of firms surveyed.⁸²

Organisations that are primarily engaged in value-added production of cedar species are often members of the Western Red Cedar Lumber Association (WRCLA) or the Cedar Shake and Shingle Bureau (CSSB). Our understanding is that the 25 manufacturers that are members of the WRCLA make up approximately 2/3rds of cedar lumber and siding shipments.

INDUSTRY LIFE CYCLE

Traditional cedar products are in the mature stage of the industry life cycle. Products are well established, there is modest growth in the sector, and products are well accepted in global markets.

⁸¹ Data provided by Western Red Cedar Lumber Association and by FII

⁸² 2012 BC Secondary Wood Manufacturing Survey – Preliminary Results, Industry, Trade and Economics, Pacific Forestry Centre, CFS, April 2014.

STRENGTHS AND WEAKNESSES

Some of the strengths and weaknesses of the cedar species are presented in Table 15.

Table 15: Strengths and Weaknesses of Cedar Products

Strengths	Weaknesses
<p>Unique Qualities Cedar has natural qualities, (e.g. aesthetic appeal, durability, versatility, ease of use in various applications, and durability) that are well suited for many applications.</p> <p>Outdoor Applications Cedar has natural resistance to decay, rot, and insects compared to wood treated with chemicals, which makes it well suited for outdoor applications.</p> <p>High Value Cedar products are often sold at a premium. For example, cedar comprised approximately 15 percent of the value of shipments from British Columbia in 2011, while representing only 5 percent of the volume.⁸³</p> <p>Product Development and Technology The evolution of finger joint products has helped address the reduction in the availability of clear fibre.</p> <p>Eco-label The growing consumer preference for green products benefits cedar products, which are environmentally friendly compared with non-wood substitute products. For example, cedar decking and siding are among the first products in the industry to have Environmental Protection Declarations.⁸⁴</p> <p>Cost Competitive Cedar products are cost competitive with non-wood substitutes.</p>	<p>Maintenance Cedar products used in exterior applications require maintenance and need to be recoated every two to three years.</p> <p>Competition There is strong competition from non-wood alternatives and petroleum-based products.</p> <p>Availability of Fibre Cedar grows exclusively in the Pacific Northwest and in some parts of the BC Interior and United States. Consequently, there is only a limited amount of available fibre.</p> <p>Fibre Quality Changes Value-added manufacturers of cedar products have had to adapt product offerings due to the availability of more knotty fibre and less clear fine grained fibre.</p> <p>Skilled Labour Shortage Manufacturers currently face labour and skilled trade shortages.</p> <p>Regulatory Requirements Each market and jurisdiction has its own fire regulation standards, which necessitates additional testing and research.</p>

Source: Interview and survey responses, unless otherwise noted.

⁸³ "Benchmarking the Canadian Western Red Cedar Market," Peter Lang and MSC Marketing Solutions Consulting Ltd for the Western Red Cedar Lumber Association, March 2013.

⁸⁴ EPDs are a type of eco-label for products and follow the reporting format outlined by the ISO 14025 standard, as well as the Product Category Rule (PCR) available for specific products. http://www.sustainablebuildingcentre.com/wp-content/uploads/2013/12/Dec-2013_LCA-EPD-white-paper.pdf

COMPETITOR ASSESSMENT

There is both domestic and international competition for Canadian cedar manufacturers. Cedar manufacturers are located in the Pacific Northwest of Canada and the United States where the species originates. There are also mills in emerging markets that import cedar logs and lumber for further processing into value-added products. Those products often compete with products manufactured in Canada and the United States.

Cedar products also face competition from wood composite materials and non-wood substitutes, such as plastic decking and siding.

SUMMARY

Cedar is a unique species, valued throughout the world for its natural beauty, durability, versatility and aesthetic properties. The species is well suited to a variety of indoor and outdoor applications. Cedar products are at the mature stage of the product life cycle and there is modest growth in the sector. Cedar products face competition from non-wood products and some competition from cedar value-added products manufactured in and exported from emerging markets.

6. MARKET ANALYSIS

MARKET OPPORTUNITIES, TRENDS AND CHALLENGES

The value-added industry's products are sold primarily in the domestic Canadian market and the US market. These are priority markets for the sector and offer the most potential for industry growth. There is growing demand around the world for the industry's products, particularly for niche products. However, these markets also present challenges for the industry. This section discusses key economic indicators for export markets and comments on the opportunities for value-added products in the selected markets. A table of select economic indicators for the export markets is available in Appendix C.

PRIORITY MARKETS

Canada and the United States were identified as priority markets for value-added wood products. These markets offer the most potential for industry growth. The majority of value-add product markets are regional, and interviews with industry representatives suggest that there are untapped opportunities in these markets.

Canada and the United States

Economic Indicators The Canadian and US economy are expected to gain strength through 2016. The World Bank forecasts that GDP growth in the United States will rise to 3.2 percent in 2015 from an expected 2.4 percent in 2014.⁸⁵ Growth in Canada is expected to be lower than in the United States, but is expected to remain positive.⁸⁶ Growing optimism about economic conditions is reflected in the consumer confidence indices for Canada and the United States, which are approaching their historical averages after experiencing significant declines following the global financial crisis.

Canada and the United States continue to provide the best opportunities for value-added products due to their market size, proximity and improving economic conditions. Canada and the United States have a long history of wood frame construction, and there is a cultural preference for using wood. Increasing numbers of housing starts and a record level of renovation and remodelling spending in the United States is fuelling increased demand for wood products.⁸⁷ Growth in construction-related expenditure is expected to increase demand across all sectors of the value-added industry, with household furnishing and structural and appearance wood products likely to benefit the most.

In addition, the depreciation of the Canadian dollar against the United States currency has made Canadian value-added products more cost competitive in the United States market.

Market Opportunities Residential construction, remodelling and home improvements collectively represent the largest single use of lumber and value-added products, and account for about two-thirds of domestic wood product consumption in the United States.⁸⁸ Over 90 percent of all homes in United States are built with wood frame walls and roofs, and the average single family home (2,190 square feet) can contain 14,200 board feet of lumber and up to 14,000 square feet of value-added products. The wood products included in a home may range from structural beams and flooring to sheathing, millwork and panelling.

⁸⁵ World Bank, "GDP growth (annual %)", DATABANK, available here: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

⁸⁶ Bank of Canada, Monetary Policy Report, January 2015

⁸⁷ Wall Street Journal, "Americans Boost Spending on Remodeling," February 3, 2014, available here: <http://www.wsj.com/articles/SB10001424052702303743604579355250986245422>

⁸⁸ Weyerhaeuser, "Working Together for Release our Potential," [Speech], available here: <http://www.weyerhaeuser.com/Company/Media/Speech?dclID=EB100120081>

Demand for household furniture, including millwork, furniture, and cabinets, is expected to improve as housing starts and remodelling expenditures grow. According to the United Nations Economic Commission furniture consumption in the United States is expected to grow at an annual rate of 2.4 percent.⁸⁹ However, furniture imports into the United States are largely commodity products that have few distinguishing features and which can be mass produced at a low cost. These products are supplied largely by Asian and Latin American producers that have access to less expensive fibre and labour. (For example, Asia accounts for 75 percent of furniture imports in the United States, and Brazil and Chile are the primary suppliers of mouldings and millwork products.⁹⁰)

There is some indication that there may be opportunities for specialised household furnishings in Canada and the United States. Industry representatives reported that opportunities for high-end and customised millwork products, furniture and other household furnishings are expanding, and that suppliers of these products are not competing on cost or high volume. These opportunities are related to new home construction and remodelling, commercial lease renovations and institutional applications (such as hotels, schools, and other public buildings). Other studies have cited custom kitchen furniture, particularly cabinets, as a growth area.⁹¹

Increased activity in new home construction and remodelling or renovation is also driving demand for structural and appearance wood, including custom glulam and LVL.⁹² Cedar products remain a key export to the United States, with strong growth reported in cedar siding and outdoor living applications. Industry representatives noted that many of the traditional cedar products are now being used for expanded purposes, such as outdoor living spaces. As multi-unit construction increases, particularly in urban areas, an increased number of developments and renovations are expanded decking and creating outdoor kitchens and living spaces with cedar products.

PREMIUM MARKETS

The European Union and Japan were identified as premium markets for value-added wood products. These markets have a cultural preference for using wood, and there are segments where consumers are able to pay premiums for Canadian value-added products. Within these regions, there is demand for niche products from small market segments.

European Union

The European Union (EU) includes 28 member countries consisting of the 19 member Eurozone (i.e. the countries that adopted the Euro) and other countries including the United Kingdom, parts of Scandinavia and much of Central and Eastern Europe.

Economic Indicators The Eurozone is forecasted to experience a small improvement in GDP growth through 2015. The World Bank forecasts that GDP growth will rise modestly to 1.1 percent in 2015 from the expected 0.8 percent growth in 2014.⁹³ The improved economic outlook is also indicated by the improvement in consumer confidence, which has experienced consistent growth since the end of 2012 and is approaching its historical average.

⁸⁹ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

⁹⁰ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

⁹¹ FPIInnovations, "US West Market Intelligence: Value-Added Wood Products," prepared for the BC Wood Specialties Group, July 2014.

⁹² UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

⁹³ World Bank, "GDP growth (annual %)", DATABANK, available here: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

In Central and Eastern Europe, GDP growth has outpaced the Eurozone and is expected to remain relatively stable into 2015. The World Bank estimates GDP growth for these countries at 2.6 percent in 2014, and to slow modestly to 2.4 percent in 2015.⁹⁴

The EU has also recently signed a free trade agreement with Canada which is expected to reduce tariff barriers and increase trade between Canada and the EU.

Market Opportunities The EU's demand for value-added wood products has historically been strong. Regions of the European continent, particularly the north and west (e.g. Scandinavia, Germany, and France), have a cultural preference for using wood and regularly use wood in construction and for furnishings. In southern Europe, however, many countries prefer metal products or other low cost wood substitutes.⁹⁵

While the EU remains a major consumer of household furnishings it does not represent a significant growth opportunity for Canadian producers. There are two primary reasons for this. First, the weak economic conditions in the EU and associated impacts on consumer spending following the global financial crisis have translated into reduced demand for discretionary items (such as household furnishings and remodelling and renovation)⁹⁶. Second, most of the EU's value-added wood products are produced domestically. Unlike other developed economies, EU countries do not import a large share of their household furnishings from China or other low-cost producers.⁹⁷ In addition, interviews with industry representatives found that many of the supply chains and relationships in the EU can span decades, which has made it difficult for individual Canadian companies to enter EU markets.

Niche markets do exist in the EU, and some Canadian producers have already had success exporting to the EU. In particular, cedar products are the most popular softwood import into most parts of the EU. Industry representatives also noted that high-end and customisable value-added wood products, such as log homes, mouldings and furniture have also had success in markets in the EU.

There is also a large and mature market in the EU for engineered wood products in construction applications. According to the UNECE, while the market for glulam and LVL is stagnant at present, the market for CLT is growing due to favourable changes in building codes and increased use in multi-storey buildings.⁹⁸ However, the market for CLT in the EU is served by local manufacturers, and is an unlikely market for Canadian manufacturers due to high transportation costs.⁹⁹

Japan

Economic Indicators Economic growth in Japan continues to be near flat as the country struggles with soft demand for exports and weaker inflation. The World Bank forecasts that GDP growth will increase slightly from 0.2 percent in 2014 to 1.2 percent in 2015.

Market Opportunities Market opportunities for Canadian value-added manufacturers are likely to continue to be centred on niche and high-end products. Japan is a nation with a history of preference towards wood products and has a variety of subsidies in place for using Japanese grown wood for

⁹⁴ The World Bank defined Central and Eastern Europe as Albania, Bosnia and Herzegovina, Bulgaria, Georgia, Kosovo, Lithuania, Macedonia, Montenegro, Romania, and Serbia. World Bank, "Global Economic Prospects," January 2015, available here: http://www.worldbank.org/content/dam/Worldbank/GEP/GEP2015a/pdfs/GEP15a_web_full.pdf

⁹⁵ Wood Markets, "The Status and Potential of the Coastal Secondary Wood Products Industry," prepared for BC Wood Specialties Group Association, March 2007.

⁹⁶ European Commission, "Household consumption expenditure," available here: http://ec.europa.eu/eurostat/statistics-explained/index.php/Household_consumption_expenditure_-_national_accounts

⁹⁷ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

⁹⁸ Ibid

⁹⁹ FPIInnovations, "Eastern Europe Country Overview Reports," October 2013.

structural purposes which may limit the opportunity for Canadian exports in this area.¹⁰⁰ Opportunities for Canadian export of value-added products may be helped as trends in Japanese architecture are moving away from more modern European designs towards more wood-centric designs.¹⁰¹ Changing preferences among consumers towards more natural designs may also influence commercial and retail building designs. The incorporation of more natural elements including wood products may provide additional opportunity for Canadian exporters.¹⁰²

EMERGING MARKETS

South Korea and the Middle East were identified as emerging markets for value-added products. While shipments to these markets have historically been low, some value-added producers have had success in selling niche products to these markets.

South Korea

Economic Indicators The World Bank forecasts that GDP growth will continue at around 3.5 percent to 3.6 percent in 2015. Growth in 2015 should be helped by monetary and fiscal stimulus as well as measures to boost the housing market.¹⁰³

South Korea also has some potential for growth as a result of the Canada - South Korea Free Trade Agreement which eliminates tariffs on value-added wood products, including prefabricated buildings, cedar, and some remanufactured lumber products. Currently Korean wood tariffs are as high as 10 percent.

Market Opportunities Similar to Japan, opportunities for Canadian value-added wood product exports are likely to continue to be centered on niche and high-end products. Korean consumers are increasingly searching for high-end finished products, and as many of the apartment buildings built in the 1970's and 1980's deteriorate and need renovations, the opportunity exists to introduce more Canadian products.¹⁰⁴ Korean demand for Canadian wood products is also likely to continue to be driven in part by demand from landscaping and decking projects where cedar is desired for its aesthetic and rot-resistant attributes.¹⁰⁵

Middle East

Economic Indicators The Middle East has been subject to ongoing political unrest for many years, which has made its economic growth unpredictable. The World Bank expects many countries in the region to grow over the next two years. However, the recent fall in oil prices may put pressure on some economic growth in the region, particularly those states that are large oil producers, such as members of the Gulf Cooperation Council (GCC).

Market Opportunities The Middle East is not a major importer of the value-added industry's products. Some niche markets, however, do exist. In particular, growth in commercial building construction is expected to increase demand for engineered wood products to be used in architectural applications.¹⁰⁶ In addition, there are small-scale opportunities for high-end furnishings and other value-added products.

¹⁰⁰ MSC Marketing Solutions Consulting, "Japan Market Evaluation and Strategy," prepared for FII, December 2013.

¹⁰¹ BC Wood Specialties Group, Application for Funding, Japan Market Program

¹⁰² Ibid

¹⁰³ OECD <http://www.oecd.org/economy/korea-economic-forecast-summary.htm>

¹⁰⁴ BC Wood Specialties Group, Application for Funding, Korea Market Program

¹⁰⁵ Ibid

¹⁰⁶ FPInnovations, "British Columbia Forest Products Trend Analysis in Export Markets 2012," prepared for Forestry Innovation Investment, September 2013.

OTHER MARKETS

Other emerging markets such as China, Eastern Europe, Turkey, and Mexico offer limited opportunities for value-added products from Canada. These countries have small niche market segments, access to fibre and low cost labour, and are able source products from the EU and other countries. In some cases, these countries pose a threat to the Canadian value-added industry, as many producers prefer to import Canadian wood products to be further manufactured domestically. For example, the consumption of glulam has grown in China, with most glulam being made in China from Canadian lumber.¹⁰⁷

India and the rest of Southeast Asia are other emerging markets that offer limited opportunities for value-added products from Canada due to tariff barriers and the transit time associated with shipping products from Canada to these markets. Transit times can be an obstacle for small businesses which do not necessarily have the financing or cash flow that would allow for delays in payment.

¹⁰⁷ MSC Marketing Solutions Consulting, "China Market Evaluation and Strategy," prepared for FII, December 2013.

SECTOR ANALYSIS

Table 16 shows the estimated annual sector revenues, 2013 export values and percentage of exports by market. As can be seen from that table, the majority of the value-added industry products are sold in Canada, with the United States being the largest export market for value-added products. Some of the volumes to other export markets are niche products, sold to small market segments, in small quantities and at premium prices.

Table 16: Estimated Annual Sector Revenue and 2013 Export Values

Markets	Remanufactured Lumber	Packaged Building Solutions	Millwork Products	Cabinets	Furniture	Cedar
Estimated Sector Revenue (CAD millions)	\$1,650	\$1,092	\$3,650	\$2,900	\$2,700	n/a
Total Sector Export Values 2013 (CAD millions)	n/a	\$91	\$380	\$383	\$950	\$689 ¹⁰⁸
United States	--	65%	98%	99%	98%	72%
Europe <i>UK, Germany, Italy</i>	--	2.5%	1.1%	0.3%	1%	15% <i>Also Belgium, France, Netherlands</i>
Russia	--	6%	0.3%	0.3%		
Japan	--	18%	0.3%	0.1%	< 0.1%	2.6%
China	--	3%	0.3%	< 0.1%	< 0.1%	3.4%
Mexico	--	2%	0.1%	< 0.1%		
South Korea	--	0.2%	0.1%	< 0.1%		< 0.1%
Australia	--	2%	0.1%	< 0.1%		3.0%
New Zealand	--					3.4%

Sources: Statistics Canada data, Industry Canada data, IBISWorld Reports for revenue estimates

Revenue and export information was not readily available for the engineered wood products sector. However, the 2013 production is provided in Table 17 to illustrate the market size for glulam and LVL products. CLT production volumes are not available.

Table 17 compares production of glulam and LVL for selected regions in 2013. Production of glulam in North America is estimated to be approximately 386 thousand cubic metres annually while production of LVL is around 1.6 million cubic metres.¹¹⁰ The information suggests that markets in North America are relatively small compared with markets in Europe, where the product awareness, acceptance and domestic consumption of engineered wood products has increased over the past decade.

Table 17: Glulam and LVL Production

2013 Production (thousand cubic metres)	United States	Canada	North America	Western Europe and Scandinavia
Glulam	353.8	32.3	386.2	3,149.5
LVL	1,512	105	1,617	n/a

Sources: UNECE, Forest Products Annual Review, 2013-2014 for glulam and LVL.

¹¹⁰ UNECE, Forest Products Annual Review, 2013-2014.

7. STRATEGIC ANALYSIS

MARKET STRATEGIES

To develop market strategies for each of the identified sectors and/or selected products the competitive position of each sector and/or product was assessed against four types of four high level strategies: Cost Leadership Strategies; Differentiation Strategies; Focused Cost Leadership Strategies; and, Focused Differentiation Strategies. The characteristics of these types of strategies are:

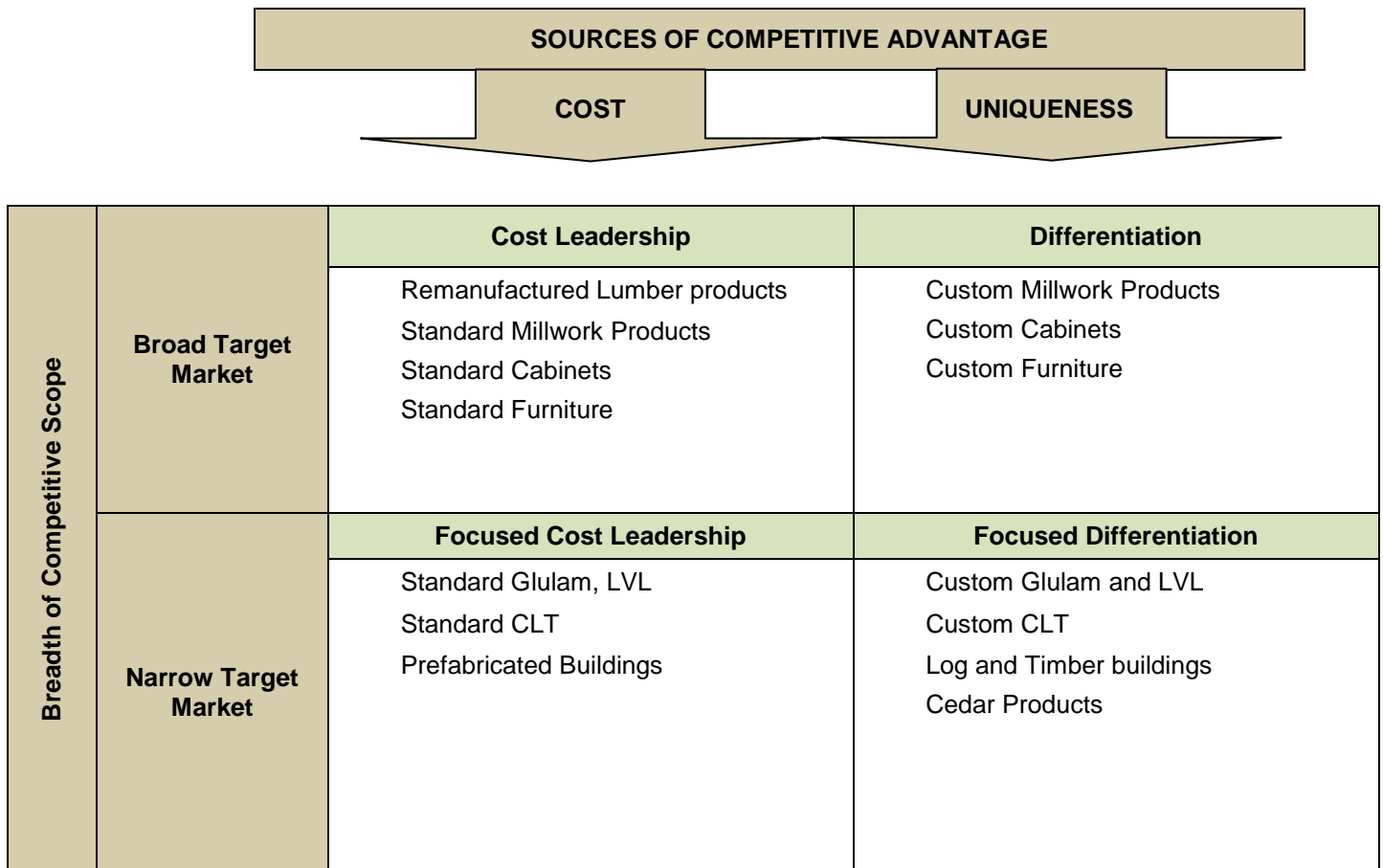
- **Cost Leadership Strategies** Cost leadership strategies are used to market products that are relatively standardised and that target a broad set of consumers at a low cost or competitive price. Cost leadership strategies are used when customers are price sensitive. Cost leadership strategies are appropriate for sectors that are able to produce goods at a lower cost than competitors by finding efficiencies and cost advantages. This gives sectors the ability to sell goods at a lower price or to generate a larger margin on sales.
- **Differentiation Strategies** Differentiation strategies are used to market unique or specialised products to broad-based markets and segments. Differentiation strategies are used when products are viewed by customers as being different or better those produced by competitors. Differentiation strategies are appropriate for products for which customers are generally willing to pay a price premium.
- **Focused Cost Leadership Strategies** Focused cost leadership strategies are similar to cost leadership strategies except that the strategies focus on meeting the needs of niche markets and specific market segments.
- **Focused Differentiation Strategies** Focused differentiation strategies are similar to differentiation strategies except that the strategies focus on meeting the needs of niche markets and specific market segments.

Additional characteristics of these strategies are described in each section below.

The industry sectors and/or selected products were assigned to one of the four types of strategies based on the characteristics of the sector, the characteristics of the product and the market segments served. Figure 1 shows which products were assigned to each type of strategy.¹¹¹

¹¹¹ Our approach follows general elements of the competitive strategy framework developed by Michael Porter

Figure 1: Market Strategies



For each market competitive strategy, the primary markets and those markets with high potential for growth for the value-added products were identified based on the economic outlook over both the near term and medium term, current trade patterns, existing and proposed trade agreements, the product's sources of competitive advantage and the key success factors and key risk factors identified in Section 4. High level strategy maps were then developed to identify suggested activities.

The remainder of this section of the report is divided into four sub-sections, one for each market competitive strategy. Each of these sub-sections contains a description of the identified markets for each product and the strategy maps applicable to the market competitive strategy.

COST LEADERSHIP STRATEGY

A cost leadership market strategy was identified for remanufactured lumber, prefabricated buildings, millwork products, cabinets, and furniture products.

Description

Cost leadership strategies market products that are relatively standardised and that target a broad set of consumers. Some of the characteristics of a cost leadership strategy are:

- Marketing efforts are aimed at reaching a large geographic area and there is limited market segmentation.
- Products have a wide distribution and appeal to a broad customer base.
- The products are supplied in large volumes or quantities. There is minimal product differentiation.
- Consumers are price sensitive. Purchases are largely motivated by price, product selection and fulfillment of a particular need.
- Competition is from products supplied by domestic and international producers that are readily available. There is also competition from product substitutes.
- Firms invest in equipment and compete based on low cost structures and offer appropriate quality, value and service.
- There are opportunities for growth within existing markets.

The market product grid below (Table 18) identifies the sectors, markets and market segments for the cost leadership strategy. When assigning the target segments within the market sector grid, MNP considered the market size, expected growth, and level of competition. In general, most of the demand for the products from these sectors comes from regional markets, there is significant price-based competition, and producers are losing market share to lower-priced imports and product substitutes. The markets in Canada and the United States are a priority for these sectors and there is minimal market segmentation.

Table 18: Market Sector Grid for the Cost Leadership Strategy

Markets	Remanufactured Lumber	Standard Millwork Products	Standard Cabinets	Standard Furniture
Canada	Downstream value-added manufacturers	Residential construction Remodelling	Residential construction Remodelling	Residential construction and renovation
United States	Downstream value-added manufacturers	Residential construction	Residential construction	Residential construction and renovation
Other Markets	Western Europe Japan China South Korea	The most opportunities are in regional markets.		
Other Market Segments	Marketing efforts are aimed at reaching a large geographic area and there is limited market segmentation.			

REMANUFACTURED LUMBER

Most of the products manufactured by the remanufactured lumber sector in Canada are semifinished products, (such as veneer, cut stock and components) that are sold to downstream industry sectors and converted into finished products. Canada and the United States markets are the priority markets for remanufactured lumber products and provide the most potential for growth in the sector. Other key markets include Japan, Western Europe and China.

Priority Markets

Canada In Canada, there are opportunities in regional markets for sales of remanufactured lumber product to downstream value-added manufacturers. These markets are often readily accessible, located close to densely populated areas and do not face as many of the trade barriers and regulatory requirements, that are often associated with export markets.

United States The market for value-added wood products in the United States is large (estimated at 200 billion dollars¹¹²), and the Canadian value-added industry has a transportation advantage given its close proximity to the market. Canada currently has a very small share of the United States value-added market compared with its share of commodity lumber markets. For example, British Columbia's share of the value-added wood products market in the United States is 1 percent while British Columbia's share of the total commodity lumber market is 15 percent.¹¹³

¹¹² BC Wood Specialties Group, Application for Funding United States Market Program, Funding Year: 2014/2015

¹¹³ Ibid

Other Markets

Other key markets for remanufactured lumber products include Japan, Western Europe and China. However, these markets present challenges for manufacturers.

Japan The Japanese market is an important market for remanufactured lumber products. In Japan, there is a cultural preference for using wood, and consumers have the ability to pay premiums for Canadian products. However, government policies, such as “buy domestic” campaigns, along with competition from European and Asian suppliers can present challenges for companies wishing to export to this market.

Western Europe There are some opportunities in Western Europe for remanufactured lumber products; however, these opportunities are limited, as construction activity remains low due to slower than anticipated economic recovery. There is demand for premium grades and species, such as Douglas fir and cedar, but these markets are generally small, relationship-based and have several high-quality service requirements. Western Europe also has access to an abundance of fibre and lumber from Eastern Europe and Scandinavia.

China In China and some emerging markets there is a preference for purchasing logs and lower grades of lumber to convert to finished products. Some of the products from these markets are consumed domestically, particularly in large developments projects and luxury homes, while others are exported from China and compete in Canada and international markets with Canadian-made products.

South Korea South Korea also offers some potential for growth as a result of the Canada - South Korea Free Trade Agreement which eliminates tariffs on many remanufactured lumber products.

STANDARD MILLWORK PRODUCTS

The millwork products sector in Canada produces a variety of finished products (such as windows, doors, flooring and mouldings) in both industry standard and custom designs. Products are offered in a variety of species, styles and finishes. This section discusses markets for standard millwork products. Custom design products are discussed as part of the differentiation strategy.

Millwork products are sold globally but the main markets are regional. Canada is the primary market for Canadian millwork products and provides the most potential for growth in the sector. The largest international markets for millwork product imports are in the United States, Western Europe and Japan. There are also markets in Eastern Europe and China.

Priority Markets

Canada In Canada there are opportunities for millwork products in construction and remodelling market segments. About two-thirds of millwork products in Canada are consumed in residential construction. Commercial and industrial applications account for the other-third of industry sales.¹¹⁴

United States The United States is the largest export market for Canadian millwork products, and represented 98 percent of the sector’s exports in 2013.¹¹⁵ In the United States domestic millwork products are increasingly being supplemented with imports from emerging markets in Asia and South America. This is evident in imports

¹¹⁴ IBISWorld, Millwork in Canada, June 2014

¹¹⁵ Statistics Canada, Annual Survey of Canadian

of moulding products to the United States. Canada's market share of US moulding imports is 11 percent, compared with Brazil and Chile at 36 and 31 percent respectively.¹¹⁶

Other Markets

Western Europe Germany, France and the United Kingdom imported approximately \$2.4 billion of millwork products in 2013. However, most of the imports originate from Europe and Asia, while fewer than 2 percent of imports originate in North America.¹¹⁷

Japan Japan imported approximately \$1.1 billion of millwork products in 2013, primarily from other parts of Asia. Only 3 percent of Japan's imports were from North America.¹¹⁸

South Korea South Korea has some potential for growth as a result of the Canada - South Korea Free Trade Agreement which eliminates tariffs on many millwork products.

STANDARD CABINETS

The cabinets sector in Canada produces a variety of wood cabinets, vanities and countertops, in both standard and custom designs. Products are offered in a variety of styles and finishes, and are made using wood, composites and other materials. This section discusses the markets for standard cabinet products. Custom design products are discussed as part of the differentiation strategy.

Canada and the United States are the primary markets for standard cabinet products. Exports to other markets only account for approximately one percent of sector exports (Table 16). The sector faces intense competition from imported products from China and Mexico, and industry growth is expected to be constrained by increased imports from these regions.¹¹⁹ According to IBISWorld imports are forecasted to increase at an annualised rate of 2.3 percent, and will take a larger share of domestic demand.¹²⁰

Priority Markets

Canada Canada is the primary market for cabinet products. The majority of products are installed in residential kitchens and bathrooms, and the opportunities are primarily in the residential construction and remodelling market segments.

United States The United States is the largest export market for Canadian millwork products and represented 99 percent of the sector's exports in 2013.¹²¹ The United States is an important market for the sector due to its large residential construction market, close proximity and lack of trade restrictions. However, limited quantities of wood cabinets are shipped to the United States due to the availability of product substitutes and products from emerging markets.

STANDARD FURNITURE

The furniture sector in Canada produces wood furniture and components, for household, office and institutional applications, in a variety of standard sizes and custom designs. This section discusses markets for standard furniture products. Custom design products are discussed as part of the differentiation strategy.

¹¹⁶ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

¹¹⁷ Ibid

¹¹⁸ Ibid

¹¹⁹ IBISWorld, Cabinet and Vanity Manufacturing in Canada, July 2014

¹²⁰ Ibid

¹²¹ Statistics Canada, Annual Survey of Canadian

The global furniture market, most of which is made from wood, was estimated to be \$437 billion in 2013.¹²² Like the cabinet sector, the Canadian furniture sector faces intense competition from imported products from emerging markets. Industry growth is also expected to be constrained by increased imports. The quality of furnishings from these regions is often low but imports are becoming increasingly popular among consumers at the low and mid-range price points.¹²³

Canada and the United States are the primary markets for standard furniture products, and consumers tend to purchase new furniture when they relocate or purchase a new home. The sector also exports some products to international markets (Table 16). The large global import markets for furniture imports are in the United States, Western Europe and Japan, but these markets typically source furniture from regional suppliers or Asia.

Priority Markets

Canada In Canada most standard furniture products are purchased by the residential construction and remodelling market segments. The industry is benefiting to a degree from a growing consumer preference to purchase products made in Canada. Regional markets in Canada are more accessible and do not face the trade barriers and regulatory requirements that are often associated with export markets.

United States The United States is the largest furniture-importing country and the largest export market for Canadian furniture. The value of furniture exports to the United States represented 98 percent of the sector's exports in 2013.¹²⁴ In 2013, 14.3 billion dollars of furniture was imported to the United States, with 75 percent being from Asia, 11 percent from Europe, 8 percent from North America, and 5 percent South America.¹²⁵ This suggests that most of the value of furniture imported into the United States in 2013 was from emerging markets.¹²⁶ Furniture consumption in the United States is expected to increase as the economy continues to strengthen. However, limited quantities of wood furniture are shipped to the United States due to the availability of product substitutes and products from emerging markets.

¹²² UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

¹²³ IBISWorld, Household Furniture Manufacturing in the US, September 2014

¹²⁴ Statistics Canada, Annual Survey of Canadian

¹²⁵ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

¹²⁶ Ibid

COST LEADERSHIP STRATEGY MAP

Table 19 provides the high-level strategy map for the cost leadership strategy with suggestions for customer, financial, internal process and learning/renewal activities.

Table 19: Cost Leadership Strategy Map

Cost Leadership Strategy Map <i>Remanufactured Lumber, Standard Millwork Products, Cabinets and Furniture</i>	
Customer	<p>Pursue market opportunities within Canada and the United States in order to grow the sectors.</p> <p>Given the limited product differentiation in the sectors, focus on targeting a broad set of consumers, rather than individual market segments.</p> <p>Increase the market awareness of “Made in Canada” products in regional markets.</p>
Financial	<p>Prioritise the international markets that offer the greatest value for product. Diversify markets, but not if the costs outweigh the benefits.</p> <p>Defend the traditional markets for the products from lower-priced imports and product substitutes.</p> <p>Capitalise on transportation cost savings advantages in regional markets.</p>
Internal Processes	<p>Work with primary manufacturers to address raw material shortages and increase the awareness of the sectors’ raw material requirements. Look to supplement the raw material supply by extracting more volume from existing fibre and lower lumber grades that may be destined for international markets, or from raw material imports.</p> <p>Make effective use of technology to find efficiencies and maintain competitiveness with imports and product substitutes.</p> <p>For remanufactured lumber and standard products, match the fibre to the highest value application and the right process. Find higher valued applications for existing products.</p>
Learning and Resources	<p>Monitor changing market trends and continue to provide market intelligence.</p> <p>Provide electronic and in person educational materials and/or seminars on industry regulations, market access, tariffs, trade and testing requirements.</p> <p>Profile and increase the exposure of small businesses in regional markets.</p>

DIFFERENTIATION STRATEGY

A differentiation market strategy was identified by MNP for custom millwork products, cabinets, furniture and cedar.

Description

Differentiation strategies market unique or specialised products to broad-based markets and segments. These strategies are appropriate when there is more brand and customer loyalty and lower sensitivity to price. Some of the characteristics of a differentiation strategy are:

- Marketing efforts are aimed at reaching a large geographic area, and there is limited market segmentation.
- Communicating the value of the product attributes is important, as is brand building.
- Products have a wide distribution and appeal to a broad customer base.
- The products are supplied in smaller volumes or quantities. The availability is limited by production capacity and access to fibre.
- Products are differentiated based on their unique product attributes and features.
- Consumers have distinctive preferences, special requirements or unique needs and often pay a premium for products.
- Competition is primarily based on product attributes and uniqueness compared to lower-priced and cost competitive alternatives.
- Firms invest in specialised equipment and compete based on customisation, design, high-quality, and service offerings.

Table 20 identifies the sectors, markets and market segments for the differentiation strategy. When assigning the target segments within the market sector grid, MNP considered the market size, expected growth, and level of competition. The products manufactured by these sectors are custom and specialised products that appeal to a broad range of consumers. Markets for these products tend to be regional, and competition is limited. Growth in these sectors requires expansion into new markets or market segments.

Table 20: Market Sector Grid for the Differentiation Strategy

Markets	Custom Millwork Products	Custom Cabinets	Custom Furniture	Cedar
Canada	Residential construction Remodelling Commercial construction	Residential construction	Single and multi-unit residential	Downstream value-add manufacturers Single and multi-unit residential Commercial
United States	Residential construction Remodelling Commercial construction	Residential construction		Downstream Manufacturers Residential Commercial
Other Markets	South Korea		The most opportunities are in regional markets.	
Other Market Segments	Marketing efforts are aimed at reaching a large geographic area and there is limited market segmentation.			

CUSTOM MILLWORK PRODUCTS

Custom millwork products are considered to be niche products that appeal to a number of markets and segments because of their specific design characteristics. The products are often produced for a single application, and the components are not repeated. Market information for the custom millwork products sector outside of Canada was not readily available.

Priority Markets

Canada In Canada, the custom millwork sector supplies unique and specialty products. The markets for these products are high-end residential and commercial segments, and demand for these products is generally from architects, designers and builders.

One of the individuals interviewed for this study described how the sector may be missing opportunities in domestic markets in the commercial office segments. Millwork is often replaced in leased office space in the first five years of occupancy and then again after 10 years or when leases are renewed.

Market awareness of the sector's products and capabilities may also be an issue for the sector. Some Canadian architects and designers have sourced custom millwork products from other countries because they were unable to find products that meet their specifications. These architects describe the sector in Canada as being "less sophisticated" when compared with other markets.

United States Similarly, the US market for custom millwork products is for high-quality products and for products for use in non-residential projects. These markets tend to be less price sensitive and suppliers compete on attributes such as quality and durability.¹²⁷

Other Markets

South Korea Korean customers are increasingly looking for high-end finished wood products primarily for interior finishing applications. There is a substantial need for modernising and renovations among existing structures due to government regulations that discourage the demolition of older buildings and promote the renovation of buildings and apartments. Government led New Town developments that promote wood use for a healthier environment are a prime target for Canadian millwork and cabinetry sectors.¹²⁸

The Free Trade Agreement with South Korea will provide better access to this market for Canadian producers, and the elimination of tariffs on value-added wood products will make Canadian products more cost-competitive.

CUSTOM CABINETS

Custom cabinets bear some similarities to custom millwork products in that the products are high-end products and appeal to a number of markets and segments because of their specific characteristics. The products are often produced for a single application and the components are not repeated. Market information for the custom millwork products sector outside of Canada was not readily available.

Priority Market

Canada In Canada, the markets for custom cabinets are primarily from the high-end residential segments, and demand for these products is generally from architects, designers and builders. According to some of the individuals interviewed, the cabinet sector has not adapted its product lines and finishes to some of the more modern styles used by producers of high-end cabinets in Germany and Italy. As a result, the sector is caught between the price competitive and high-end markets.

United States The market opportunities for custom cabinets in the United States are in resort and secondary vacation home markets, along with the potential to supply new construction in the western United States.¹²⁹ There is a growing trend toward adding outdoor structures and expanding living areas, which may create some demand for semi-custom or custom products for gourmet style kitchens.

CUSTOM FURNITURE

Market information for the custom furniture products sector was not readily available. Individuals interviewed for this study made comments similar to those made for custom cabinets, in terms of the sector's need to adapt product lines to more modern styles and finishes.

¹²⁷ BC Wood Specialties Group, Application for Funding, United States Market Program, Funding Year:2014/2015

¹²⁸ BC Wood Specialties Group, Application for Funding, Korea Market Program, Funding Year:2014/2015

¹²⁹ BC Wood Specialties Group, Application for Funding, United States Market Program, Funding Year:2014/2015

DIFFERENTIATION STRATEGY MAP

Table 21 provides a high-level strategy map for the differentiation market strategy with suggestions for customer, financial, internal process and growth/renewal activities.

Table 21: Differentiation Strategy Map

Differentiation Strategy Map <i>Custom millwork, cabinets and furniture.</i>	
Customer	<p>Pursue market opportunities within Canada and the United States in order to grow the sectors.</p> <p>Promote the unique product attributes and customisation capabilities to broad market segments.</p>
Financial	<p>Prioritise the international markets that offer the greatest value for the product. Diversify markets, but not if the costs outweigh the benefits.</p> <p>Defend the domestic product markets and grow market share by replacing imports and product substitutes.</p>
Internal Processes	<p>Make effective use of technology and custom design capabilities to differentiate product and service offerings.</p> <p>Connect consumers and manufacturers. Create a network for matching specialised product requests to customised solution capabilities.</p>
Learning and Resources	<p>Monitor changing market trends and continue to provide market intelligence.</p> <p>Provide electronic and in-person educational materials and/or seminars on market research and access, tariff, testing and certification requirements.</p>

FOCUSED COST LEADERSHIP STRATEGIES

A focused cost leadership strategy was identified for standard glulam, LVL, CLT and standard prefabricated buildings products.

Description

Focused Cost Leadership Strategies are similar to cost leadership strategies but target a narrow market. Some of the characteristics that are similar to a cost leadership strategy are:

- The products are relatively standardised.
- Consumers are price sensitive. Purchases are largely motivated by price, product selection and fulfilling a particular need.
- Firms invest in equipment and compete based on low cost structures and offer appropriate quality, value and service.
- There are opportunities for growth within existing markets.

Characteristics that differ from a cost leadership strategy are:

- Marketing efforts are tailored to meet the needs of a smaller geographic area and specific or niche market segments.
- Products have a narrow distribution to selected markets and market segments. There are many market segments and buyers' needs are diverse.
- Competition is primarily from domestic producers and product substitutes.
- The products are supplied in smaller volumes or quantities due to limited demand.
- Product attributes are a greater factor in purchase decisions.

The market product grid below (Table 22) identifies the sectors, markets and market segments for the focused cost leadership strategy. When assigning the target segments within the market sector grid, MNP considered the market size, expected growth, and level of competition. In general, the markets for these products are small and tend to be local. International trade is limited by high transportation costs and market acceptance of wood frame construction.

In North America, demand for these products is expected to grow with increased building code acceptance and product awareness. The availability of products from these sectors is limited by demand, production capacity and access to fibre.

Table 22 Market Sector Grid for the Focused Cost Leadership Strategy

Markets	Engineered Wood Products (Standard Glulam, LVL)	Engineered Wood Products (Standard CLT)	Standard Prefabricated Buildings
Canada	Residential construction Commercial construction Industrial construction	Industrial	Residential construction Commercial construction Industrial construction
United States	Residential construction Commercial construction Industrial construction	Industrial	Residential construction Commercial construction Industrial construction
Other Markets	Japan	The most opportunities are in Canada and the United States	South Korea China Turkey
Other Market Segments	Packaged building solutions and sections manufacturers Public buildings	Resource extraction industries Access mats, equipment mats, bridges decks, industrial poles	Vacation homes Temporary housing and semi- permanent buildings Aboriginal community housing and public buildings Seniors' housing

ENGINEERED WOOD PRODUCTS - STANDARD GLULAM, LVL AND CLT

Standard glulam and LVL products, manufactured by the engineered wood products sector in Canada, are established products which are approved for use in building codes in North America and international markets. These products are used in residential, commercial and industrial applications.

Standard CLT products are used primarily in industrial applications, such as matting and platforms for the oil and mining industries. These products are a recent entrant to the industrial matting market in North America and are gaining market acceptance. An important selling factor is that CLT mats have the same strength and durability as bolted mats but are generally lighter.

Canada and the United States are the primary markets for standard glulam, LVL and CLT products, and provide the most potential for growth in the sector.

Market information for the engineered wood product sector in Canada is not readily available because the sector is made up of a small number of private companies.

Priority Markets

Canada and the United States The market for standard glulam and LVL is in balance, but is expected to increase throughout Canada as the products are adopted into more commercial and multi-unit residential construction applications. According to the APA - The Engineered Wood Association, the North American market is expected to grow to 774 thousand cubic metres by 2018.

Future growth in the Canadian sector may be constrained by production capacity. In 2013, the sector produced 32.3 thousand cubic metres of glulam, which is roughly one tenth of what was produced in the United States. This compares to production of 3.2 million cubic metres in Western Europe and Scandinavia (Table).

Other Markets

Japan In Japan, glulam products are imported from Finland, Austria and Estonia, which suggests that there are opportunities for the sector in Asia.¹³⁰

Industry stakeholders indicated that European producers have been successful in exporting engineered wood products to markets such as China and the Middle East.

PREFABRICATED BUILDINGS

Prefabricated wood buildings and sections are part of the packaged building solutions sector. The products are highly customised, and are tailored to the particular consumer's preference or to the market application.

There is a global market for prefabricated wood buildings but the sector's markets are regional and tend to be in more rural and remote areas. Canada and the United States are the priority markets for prefabricated buildings and provide the most potential for growth in the sector.

Priority Markets

Canada In Canada there are opportunities for prefabricated buildings in several market segments, including new residential construction, temporary and semi-permanent housing, and vacation home segments. There are also opportunities at the mid to higher end of the market for vacation properties and cabins, resort communities, and secondary or retirement homes.

A substantial potential market is in housing and facilities for both Aboriginal and non-Aboriginal communities in rural and remote areas. Those communities often have limited road access, shorter building seasons and shortages of skilled labour for construction activities. In 2012, that market was estimated to exceed \$60 million.¹³¹

There is also innovation within the sector, as exemplified by companies such as Edmonton-based Landmark Home and Land Company, which constructs prefabricating interior and exterior wall panels and sells prefabricated home kits on eBay.¹³²

United States The United States is the largest export market for prefabricated wood buildings from Canada. In 2013, this market accounted for 65 percent of exports.¹³³ Recently, improvements in the housing market have led to increased competition and increased opportunity for prefabricated housing manufacturers.

¹³⁰ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

¹³¹ Westcoast CED Consulting Ltd., Market Analysis Log and Timber Buildings-2012, accessed here

<http://www.bclogandtimberbuilders.com/wp-content/uploads/2013/03/CCBAC-Log-Home-Project-Market-Analysis-Study-Final-Report.pdf>

¹³² Ebay website, February 2015, accessed <http://www.ebay.ca/itm/Kit-Homes-House-by-Landmark-Home-Land-Co-Prefab-house-home-Pre-Fab-Panel-home-/130504013373?autorefresh=true>

¹³³ Westcoast CED Consulting Ltd., Market Analysis Log and Timber Buildings-2012, accessed here

<http://www.bclogandtimberbuilders.com/wp-content/uploads/2013/03/CCBAC-Log-Home-Project-Market-Analysis-Study-Final-Report.pdf>

Other Markets

Exports play a relatively small role in the sector. The size and weight of prefabricated homes makes them difficult and costly to transport over large distances.¹³⁴ South Korea also has some potential for growth as a result of the Canada - South Korea Free Trade Agreement which eliminates most of the tariffs on prefabricated buildings. According to industry stakeholders, some Canadian companies have recently had some traction in exporting prefabricated buildings to Turkey and China.

FOCUSED COST LEADERSHIP STRATEGY MAP

Table 23 provides the high-level strategy map for the focused cost leadership market strategy with suggestions for customer, financial, internal process and growth/renewal activities.

Table 23: Focused Cost Leadership Strategy Map

Focused Cost Leadership Strategy Map <i>Standard Glulam, LVL, CLT and Prefabricated Buildings</i>	
Customer	<p>Pursue market opportunities within Canada and the United States in order to grow the sectors.</p> <p>Focus market intelligence efforts on understanding and meeting the needs of the targeted markets and individual market segments.</p> <p>Address the perception in the marketplace that standard engineered products are more expensive by promoting the products' advantages, cost competitiveness and other cost saving features.</p> <p>Address the perception that prefabricated buildings are of a lower quality by building awareness of the product selection and customisation features.</p>
Financial	<p>Continue to promote the product selection, service and cost saving benefits of the products in order to grow market share from substitutes such as concrete and steel construction.</p> <p>Defend the traditional markets for the products from lower priced substitutes.</p>
Internal Processes	<p>Investigate advances in transportation systems to help offset some of the costs associated with expansion beyond domestic markets.</p>
Learning and Resources	<p>Provide electronic and in-person educational materials and/or seminars on issues such as, building code regulations, energy efficiency requirements, market access, tariffs, trade and testing requirements.</p>

¹³⁴ Industry Canada data

FOCUSED DIFFERENTIATION STRATEGY

A focused differentiation strategy was identified by MNP for custom glulam, LVL, CLT, log and timber and prefabricated buildings, and cedar products.

Description

Focused differentiation strategies market unique or specialised product to a narrow market. Some of the characteristics that are similar to a differentiation strategy are:

- The products are unique or specialised.
- Communicating the value of the product attributes is important and brand building is important.
- Products are supplied in smaller volumes or quantities. The availability is limited by production capacity and access to fibre.
- Products are differentiated based on their unique product attributes and features.
- Consumers have distinctive preferences, special requirements or unique needs and often pay a premium for products.
- Firms invest in specialised equipment and compete based on customisation, design, high-quality, and service offerings.
- Expansion into new markets or market segments is a required for growth.

Characteristics that differ from a differentiation strategy are:

- Marketing efforts are tailored to meet the needs of a narrow geographic market and/or specific market segments.
- Products have a narrow distribution to selected markets and market segments. There are many market segments, and customers' needs are diverse.
- Products and service offerings have distinct qualities and are not easily replicated. There is limited competition, and few product substitutes are available.

Table 24 shows the sectors, markets and market segments for the focused differentiation strategy. When assigning the target segments within the market sector grid, MNP considered the market size, expected growth, and level of competition. In general, the markets for the products from these sectors are small, and demand is from small niche markets. The availability of products is limited by production capacity and access to fibre. In the case of engineered wood products and packaged building solutions, transportation costs often limit the expansion into international markets.

Table 24: Market Sector Grid for the Focused Differentiation Strategy

Markets	Engineered Wood Products (Custom glulam, LVL))	Engineered Wood Products (Custom CLT)	Packaged Building Solutions (Log and Timber and high quality prefabricated buildings)	Cedar Products
Canada	Residential construction Commercial	Residential construction Commercial construction	Residential construction Commercial construction	Residential construction Commercial construction
United States	Downstream Manufacturers Residential construction Commercial construction	Residential construction Commercial construction	Residential construction Commercial construction	Downstream manufacturers Residential Commercial Institutional (schools/universities)
Other Markets	Japan		Japan South Korea China Mexico Turkey	Western Europe Japan China Australia New Zealand
Other Market Segments	Prefabricated buildings and sections manufacturers Architects, designers, engineers, building contractor	Prefabricated buildings and sections manufacturers (i.e. wall panels) Architects, designers, engineers, building contractor	Public Buildings Resort / High-end Architects, designers, engineers, building contractor	Exterior cladding and interior panels Remodelling Outdoor living Architects, designers, engineers, building contractor

ENGINEERED WOOD PRODUCTS - CUSTOM GLULAM, LVL AND CLT

Custom glulam and LVL products, manufactured by the engineered wood products sector in Canada, are niche products that are approved for use in building codes in North America and international markets. The products are used in large residential and commercial construction and are valued for their quality and complex designs. The products are often used in the construction of public buildings and recreational venues.

Custom CLT panels are relatively new products in North America, and are increasingly being incorporated into the construction of commercial buildings.

Canada and the United States are the primary markets for custom glulam, LVL and CLT products, and provide the most potential for growth in the sector.

Market information for the engineered wood product sector in Canada is not readily available as the sector is made up of a small number of private companies.

Priority Markets

Canada The market for custom glulam and LVL is in balance but is expected to increase throughout Canada as the products are adopted into more commercial and multi-unit residential construction applications. Consumption in North America is growing incrementally and is positioned to outcompete concrete and steel on the basis of sustainability.¹³⁵

As indicated earlier, future growth in the Canadian sector may be constrained by production capacity.

Custom CLT products are a more recent entrant to the commercial construction segment in Canada and the United States and are growing in popularity because the products are prefabricated and reduce both costs and construction time.

United States The geographic proximity to the United States market allows Canadian manufacturers easy access and creates a cost-barrier for competitors from international markets.¹³⁶

Other Markets

Japan Recent trends in using heavy timber style engineered wood in commercial projects such as resort developments is opening up opportunities for foreign suppliers. Architects across Japan are looking to use wood in innovative ways in order to build unique commercial structures. In rural areas, heavy timber is being considered for use on a variety of projects including kindergartens, schools, libraries, as well as retail and office space.

Custom CLT products are not currently allowed under Japanese building codes but there is interest in the product for commercial construction, and revisions to the standards are expected in the near future.¹³⁷

LOG AND TIMBER BUILDINGS

Log and timber homes are a niche market, and appeal to selected consumers in several markets.

Priority Markets

Canada and the United States Log and timber construction is an established market in North America. The buildings can be primary dwellings, but are more often constructed as second homes. Log homes construction is popular in resort areas. With the close geographic proximity of the region, readily available disposable income of buyers, and the increase in secondary vacation homes, there is opportunity for Canadian manufacturers of high-end log home and timber structures in the Western US mountain resort regions.¹³⁸

¹³⁵ UNECE, "Forest Products Annual Market Review 2013-14," Geneva Timber and Forest Study Paper 36, available here: <http://www.unece.org/forests/fpm/annualmarketreviews.html>

¹³⁶ BC Wood Specialties Group, Application for Funding, United States Market Program, Funding Year:2014/2015

¹³⁷ Ibid

¹³⁸ Ibid

Other Markets

Japan Consumption of log homes in Japan is estimated at only 3,000 starts per year. However, the market is significant for Canadian log home producers. Log homes have become accepted as primary residences and recreational properties in mountain resort areas.¹³⁹ Small quantities are shipped from Canada to this market.

Emerging Markets With the growing affluence and rising middle class in emerging markets, log and timber homes are growing in popularity. In South Korea and China, opportunities exist in vacation, resort and golf development areas. There is also a market for log and or timber homes in vacation property areas in Mexico.¹⁴⁰

CEDAR PRODUCTS

Cedar products are considered to be niche products, and are manufactured within each of the value-added industry sectors. Discerning customers will choose cedar for its beauty and sustainability. The market strategy for cedar involves taking a market by market approach to identify the needs of each market. The approach considers not only the product, but also the product coatings, distribution channels and end uses.

Many Canadian cedar product manufacturers have focused their sales on the Canadian and United States market. In particular, the industry has experienced the most success in high-end and custom building sector. In this sector, customers tend to be less price sensitive and there is less competition from wood substitute products. According to industry interview, cedar product manufacturers have also focused on building long-term relationships with customers to find new applications for existing cedar products.

The United States market accounted for 72 percent of the value of Canadian cedar exports in 2013.¹⁴¹ Western Europe, Japan, China, Australia, New Zealand are also markets for Canadian exports.

New opportunities are pursued in those niche markets that offer the greatest value. This can also be influenced by fibre availability. For instance, where fibre quality is declining new opportunities for finger-jointed cedar products have arisen.

¹³⁹ BC Wood Specialties Group, Application for Funding, Japan Market Program, Funding Year:2014/2015

¹⁴⁰ BC Wood Specialties Group, Application for Funding, Various Market Program, Funding Year:2014/2015

¹⁴¹ Western Red Cedar Lumber Association data.

STRATEGY MAP

Table 25 provides the high-level strategy map for the focused differentiation market strategy with suggestions for customer, financial, internal process and growth/renewal activities.

Table 25: Focused Differentiation Strategy Map

Focused Cost Leadership Strategy Map <i>Custom glulam, LVL and CLT, log and timber homes, and cedar products</i>	
Customer	<p>Pursue market opportunities within Canada and the United States in order to grow the sectors.</p> <p>Promote the unique product attributes and customisation capabilities to specific market segments, such as building contractors, architects, engineers and designers.</p> <p>Support market outreach efforts to increase product awareness and promote the benefits of wood construction.</p>
Financial	<p>Prioritise the international markets that offer the greatest value for the product. Diversify markets, but not if the costs outweigh the benefits.</p> <p>Defend the domestic product markets and grow market share by replacing imports and product substitutes.</p>
Internal Processes	<p>Make effective use of technology and custom design capabilities to differentiate product and service offerings.</p> <p>Connect consumers and manufacturers. Create a network for matching specialised product requests to customised solution capabilities.</p> <p>Investigate advances in transportation systems to help offset some of the costs associated with expansion beyond domestic markets.</p>
Learning and Resources	<p>Monitor changing market trends and continue to provide market intelligence.</p> <p>Provide electronic and in-person educational materials and/or seminars on building code regulations, energy efficiency requirements, market access, tariffs, trade and testing requirements.</p>

8. CONCLUSION

Given the range of products produced by Canadian value-added forest industry sectors, and the diversity of markets and market segments served, it is difficult to develop a single market development strategy that is applicable for the entire industry. To that end, four recommended market strategies have been developed in order to focus market efforts around products and market requirements of the individual sectors.

The recommended market strategies are:

- Use a cost leadership strategy for more established and standardised products that appeal to broad-based and price sensitive markets, such as remanufactured lumber, and standard millwork products, cabinets, and furniture products.
- Use a differentiation strategy for unique products that are aimed at broad markets that are price insensitive, such as custom millwork products, cabinets, and furniture.
- Use a focused cost leadership strategy for standardised products that have limited demand from smaller markets and narrow market segments, such as standardised glulam, LVL, CLT and prefabricated buildings.
- Use a focused differentiation strategy for unique products that are valued by niche markets and select buyers, such as custom glulam, LVL and CLT, log and timber homes, and cedar products.

Markets

Canada and the United States are priority markets and offer the most potential for industry growth. The majority of value-added product markets are regional and market information and interviews with industry representatives suggest that there are untapped opportunities in these markets.

Markets outside of Canada and the United States present greater challenges due to trade barriers, government restrictive policies, and differences in building codes and regulatory requirements. Transit times associated with shipping products to some of these markets can be an obstacle for small businesses which do not necessarily have the financing or cash flow that would allow for delays in payment.

Established markets in Western Europe and Japan are considered to be premium markets for some Canadian value-added industry products because there is a cultural preference for using wood and consumers in some market segments are able to pay premiums for Canadian products. These markets consume small quantities of niche products, but often pay higher prices than domestic markets.

South Korea, Turkey and the members of the GCC region were identified as emerging markets for value-added products. While shipments to these markets have historically been low, some value-added producers have had some traction in selling niche products to these markets.

Other markets such as China, Russia and Mexico offer limited opportunities for value-added products from Canada. These markets are able to source value-added products from producers in nearby countries at prices that are more cost competitive than Canadian producers.

APPENDIX A – MARKET DEVELOPMENT INITIATIVES

The following are some examples that programs and initiatives that support the Canadian value-added industry.

Initiative/Type of Program	Primary Location	Primary Nature of Initiative
BC Wood Specialties Group		
BUILDEX Calgary	Canada	Tradeshow for engineered wood, millwork, specialty wood
Doing Business in the US workshop	Canada	Education on exporting to the US
China International Exhibition on Housing Industry (CIEHI)	China	Tradeshow for building materials
Interzum Guangzhou	China	Tradeshow for remanufactured wood products
Grading and Product Knowledge Seminar Series	China	Education on grading and products
Beautiful Houses Expo	Russia	Tradeshow for specialty lumber, millwork, prefabricated homes
Turkeybuild	Turkey	Tradeshow for building materials
Bau 2015	Germany	Tradeshow for building materials
DelhiWood	India	Tradeshow for millwork and furniture
Reform Industry Fair	Japan	Tradeshow for millwork and kitchen cabinets
Osaka Living and Design Show	Japan	Tradeshow for millwork and furniture
Japan Home and Building Show	Japan	Tradeshow for all value-add products
The Nikkei Architectural & Construction Materials Show	Japan	Tradeshow for building materials
Korean Wood Fair 2014	Korea	Tradeshow for all value-add products
Kyung Hyang Show 2015	Korea	Structural building materials, millwork, prebuilt homes
Hospitality Design Expo	US	Tradeshow for millwork and furniture
Wood Solutions Fair	US	Tradeshow for structural and finishing products
South Texas Oilfield Expo	US	Tradeshow for pre-built housing and finished products
Specifiers Lunch and Learn Seminars and Product Knowledge Workshops	Canada and the US	Education on value add products and specifications
Opportunities Analysis Mission	Latin America	Education on product opportunities
Doing Business in Central and South America Workshop	Canada	Education on exporting to Latin America
Expo CIHAC	Mexico	Tradeshow for building materials and furniture
Government Initiatives		
Market Development Programs	Multiple	Education and promotion of market opportunities for wood
Wood First Program	Multiple	Education and promotion of building with wood
Tall Wood Initiative	Canada	Education on constructing tall buildings using

Initiative/Type of Program	Primary Location	Primary Nature of Initiative
		wood
Technical Research and Testing	Canada	Education and testing of various wood products
Codes and Standards	Canada	Research and promotion of wood design in building codes
Canada Wood		
Busan Housing Interior Exhibition	Korea	Tradeshow for building materials
Care TEX	Japan	Tradeshow for building materials
Business to Business Seminars	Korea	Education on wood products
Coast Forest Products Association		
Market access and promotion initiatives	Japan	Promotion of building materials
Building wood culture	China	Education on building with wood and using wood materials
Appearance Grade Program	US	Education on millwork and cabinetry
Canadian Wood Council		
International Wood Symposium	Canada	Education on wood products
Wood Design Luncheon Conferences	Canada	Education on designing with wood
Wood Solutions Fairs	Canada	Education on using wood for building materials
WoodWorks! Awards Program	Canada	Education on innovative uses of wood
APA – Engineered Wood Association		
Wood University	Canada/US	Education on engineered wood
Forest Products Association of Canada (FPAC)		
Bio-pathways and Construction Value Pathways	Canada	Research and education building materials and bio-products
BC Log and Timber Building Association		
International Log Builders' Association Joint Conference	Canada	Tradeshow on log and timber homes
BC Log Home Show	Canada	Tradeshow on log and timber homes
Encouraging Adoption of CLT Systems	Canada and US	Education on CLT
On our Own Turf	Canada	Promotion of building materials
Quebec Wood Export Bureau		
Wood Pellet Heating Conference	Canada	Wood pellet, biomass
Montreal Wood Convention	Canada	Building materials and furnishings
Western Red Cedar Lumber Association		
Market Access Initiatives	Canada, US, Europe	Code development work on fire, energy etc, as well as work on environmental product declarations
AIA Continuing Education Series	Canada and US	Education on cedar products
Cedar Books, Technical Documents	Canada and	Education on cedar products, especially practical

Initiative/Type of Program	Primary Location	Primary Nature of Initiative
and Educational Resources	US	guides delivered through multiple channels for distributors and end-users.
Canadian Mill Services Association		
Quality Assurance, Lumber Grading, and other Training Seminars	Canada	Education on millwork
Architectural Woodwork Manufacturers Association of Canada		
Education Seminars	Canada	Education on millwork and wood finishing
Awards Ceremonies	Canada	Education on innovation products
Fenestration Canada		
Seminar series	Canada	Education on millwork
Win-Door	North America	Tradeshow for millwork
Kitchen Cabinet Manufacturers' Association		
Educational and Networking Opportunities	North America	Education on cabinets and business partnerships
Cabinet Makers Association		
Wood Diamond Award Programs	Canada	Education on innovative cabinets and other products
Canadian Home Furnishing Alliance		
Canadian Home Furnishing Awards	Canada	Education on innovative home furnishings and furniture

APPENDIX B – MARKET DEVELOPMENT INITIATIVES IN OTHER JURISDICTIONS

Selected examples of wood encouragement programs in other jurisdictions are presented in the table below.

Country	Organisations	Promotional Activity
United States	American Wood Council	Promotes Wood's environmental advantages and green building with links to reThink Wood and carbon calculators
United States	Wood Products Council	WoodWorks is their initiative to promote wood. Provides free project assistance and education/resources for design or non-residential multi-family wood buildings.
Switzerland	Lignum	Use a website and publications to promote wood (and different ways to use wood outside of traditional use), and to introduce innovative ways of using wood and raise awareness.
Norway	TreFokus	Use websites to provide tips for consumers about living with wood and demonstrate the innovative use of wood in construction projects. The website contains booklets for nearly 60 different subjects related to wood and wood building for consumers and professionals. There are also description of different types of wood products, and DIY booklets for different wood projects
New Zealand	Timber Preservation Council	WOODmark programme (New Zealand's only nation-wide quality assurance programme for treated timber) They promote this quality assurance programme through conferences, education seminars and information publications.
Korea	Korea Wood Building Association	Provides education and Training program such as: Wood Frame Builder's Program with Kookmin WBDC (builder and carpentry skills) Cyber Studio Program (Wood building design) Wood frame housing inspection program
Japan	Japan Federation of Wood Industry Association	Organisation that promotes wood product use [do so through a website: http://www.zenmoku.jp/] The scope of business includes doing research, delivering lectures and training programs, implementing certification activities based on Japanese standards, publicising and familiarising the promotion of wood product users. The association created a website to promote wood. The website educates consumers about wood, the various uses of wood, promotes the use of wood for houses and dwellings and use of wood for other products such as kid's toys.
Japan	The Japan Wood Research Society	Academic research society to promote the study of forests products science and wood technology. Activities include: Publications (Journal of Wood science), Organise annual national meeting, organise working groups on 13 subjects (Wood-water Relations; Anatomy and Quality of Wood; Wood-based Materials and Timber Engineering; Bio-deterioration; Rheology; Wood Machining; Extractives and Wood Utilisation; Chemical Processing of Wood; Pulp and Paper Science; Mushrooms; Wood Adhesion; Reliability in Wooden Environment; Chemical and Biochemical

Country	Organisations	Promotional Activity
		Conversion of Biomass), public relations and publications.
Italy	Prompt Legno	(In collaboration with Pro:Holz Austria) - to promote use of wood regardless of origin. Activities include: Conferences and seminars Courses on Structural use of wood (for engineers and architects and other construction professionals) also have the website that provides examples and information on the use of wood.
Finland	Puuinfo	Provides information on wood products and building with wood, design help and design tools, information and examples of different types of products and instructions for do-it yourself projects
Europe	CEI-Bois	Aims to influence policy makers to further interests of European wood sector. Wrote position papers subjects such as sustainability, factsheets on green building and building with wood
Europe	Europe Wood	Group of companies and associations that have this cooperation to promote modern wood buildings, more specifically to China and Japan. The website has a link for China or Japan and describes benefits of wood, wood products and building systems and living with wood. The websites are different for each country (china vs. japan). Targeted marketing
Europe	European Federation of the Parquet Industry	Use their website to show examples of how wood products can be used, and provides relevant European legislation. There is also a newsletter, and have an annual parquet congress.
Europe	Packaging from nature	Website to promote the use of wood packaging. Describes benefits to costs, environment and adaptability. Also questions the use of Plastic.
Austria	pro:Holz	Website promoting wood use and educating on wood use and benefits. Offers many examples of buildings and how they can use wood (or have used wood)

APPENDIX C – ECONOMIC INDICATORS

The following table summarises the economic indicators for the key export markets where industry products are sold. Factors such as GDP, housing starts, and consumer confidence influence the level of construction activity and affect the demand for the industry's products.

Criteria	GDP (current US\$, 2013) ¹⁴² Billions	Expected GDP Growth ¹⁴³ (2014 2015)	Housing Starts, 2013 ¹⁴⁴	Household Furniture, Furnishings and Floor Covering Expenditure ¹⁴⁵ (US\$ Millions, 2012)	Consumer Confidence (2013 average) ¹⁴⁶ (Historical Average)
Priority Markets					
US	\$16,768.1	2.4% 3.2%	1,028,000	\$137,487	79.2 (85.1 from 1952 to 2014)
Canada	\$1,826.8	2.4% 2.2%	187,923	\$14,127	80.7 (82.2 from 2001 to 2013)
Premium Markets					
Eurozone	\$21,593.0	0.8% 1.1%	1,274,200 (European Union)	Unknown	-19.0 (-12.6 from 1985 to 2014)
Japan	\$4,919.6	0.2% 1.2%	980,025	\$18,795	43.7 (42.2 from 1982 to 2014)
Other Markets					
China	\$9,240.3	7.4% 7.1%	6,300,000	\$23,283	101.2 (109.7 from 1991 to 2014)
South Korea	\$1,304.6	3.5% 3.6%	83,744	\$4,213	104.3 (100.7 from 1998 to 2014)
Turkey	\$822.1	3.1% 3.5%	Unknown	\$10,786	72.6 (87.1 from 2004 to 2014)
Saudi Arabia	\$748.4	5.2% 4.1%	Unknown	\$5,410	103.0 (108.3 from 2010 to 2014)

¹⁴² World Bank, "GDP (current US\$)", DATABANK, available here: <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>

¹⁴³ World Bank, "GDP growth (annual %)", DATABANK, available here: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

¹⁴⁴ Housing Start Data was retrieved from multiple sources. These include:

European Union: http://www.fs.fed.us/nrs/pubs/jrnl/2013/nrs_2013_alderman_001.pdf

China: http://news.xinhuanet.com/english/china/2013-12/24/c_132993106.htm

Japan: https://ycharts.com/indicators/japan_housing_starts

South Korea: <http://www.internationalforestindustries.com/2014/04/04/japanese-and-korean-economic-and-housing-update/>

United States: <http://www.tradingeconomics.com/united-states/housing-starts>

¹⁴⁵ Euro Monitor, "World Consumer Income and Expenditure Patterns," 2014, available here:

http://www.euromonitor.com/medialibrary/PDF/Book_WCIEP_2014.pdf

¹⁴⁶ Consumer Confidence Statistics were retrieved from the ieconomics database. The ieconomics database aggregates economic indicators published by national statistical agencies and other research organizations. The database can be found here:

<http://ieconomics.com/>