

2020-2023 Strategic Plan

Wood First Program

November 2019



Table of contents

Table of contents	ii
Executive summary	3
Overview	4
Operating environment in B.C.	5
Industry landscape	5
Trends and emerging Issues	6
Opportunities	7
Threats and weaknesses.....	9
Implications	10
New technologies and applications required to advance wood use	10
Shift up the value chain.....	10
Increase capacity in the value-added sector	10
Strategic objectives.....	11
Action plan: demonstrating leadership in B.C.	12
Focus areas	12
Performance measures and indicators	16
Appendix 1: Target audiences	19

Executive summary

The purpose of this strategy is to create a three-year plan with the objective to guide the strategic focus for Forestry Innovation Investment's Wood First Program.

Wood First program goal

British Columbia is a leader in using innovative forest products and building systems.

Strategic objectives and focus areas

1. Grow the culture of living and building with wood in B.C. and beyond
2. Maximize the appropriate use of wood in public and private projects
3. Accelerate the adoption of existing and new innovative wood-based products and building systems
4. Strengthen B.C.'s capability to produce competitive wood-based products and building systems that create and respond to market demand and are aligned with future raw material supply
5. Position B.C. as a world leader in sustainable and innovative wood-based products and building systems in design, production, and application

Overview

The British Columbia Government initiated Wood First in 2009 to help further develop the province's forest industry to be vibrant and globally competitive, providing benefits for current and future generations and acting as one of the foundations for strengthening B.C. communities.

Programming to support Wood First was assigned to Forestry Innovation Investment (FII) in 2011. FII's Wood First program focuses on advancing wood use in the province by positioning wood as a preferred building material through diversifying uses of wood in building design and construction and supporting innovation in manufacturing.

Goal:

British Columbia is a leader in using innovative forest products and building systems

True to the model of sustainability, increased wood use in structural and architectural applications benefits the province economically, environmentally, and socially. For instance, the development of advanced wood technologies and building systems fosters innovation and growth in value-added manufacturing, which supports the forest sector by creating and sustaining jobs. Canada is the international leader in forest certification with B.C. contributing more than any other province, and therefore use of wood from British Columbia encourages sustainable forestry practices and positions B.C. as an environmental steward. The sector also generates government revenue, green and clean technology jobs and is therefore important to the social fabric of many communities.

The purpose of the Wood First program Strategic Plan is to create a three-year plan with clear objectives for FII's Wood First program. These objectives and action plans will drive and focus annual investments needed to achieve the Wood First program goal. This strategy is aligned with the five-year FII Strategic Plan¹ and reflects guidance provided by the Wood First Advisory Committee (WFAC).

¹ FII's Strategic Plan, Service Plan and other corporate reports are available on the FII website at www.bcfii.ca

Operating environment in B.C.

Industry landscape

British Columbia is a leading manufacturer of forest products. Within Canada, B.C. is the largest producer of softwood lumber. The size and scale of the sector in B.C. provides critical mass and industry a comparative advantage in pursuing highly competitive international markets for forest products.

The B.C. forest sector is highly integrated, with the production of softwood lumber driving the economics of the industry—residuals from lumber production provide fibre for pulp and paper manufacturing and for wood pellet production. Two main regions produce wood products in B.C.: the coast and the interior. While focusing on different species, the two regions are interconnected through flows of fibre from interior sawmills to pulp and paper mills located on the coast. Much of B.C.'s softwood lumber is produced in the interior and is of structural quality (primarily spruce-pine-fir), while a significant volume of structural product and value-added “appearance grade” non-structural products (e.g., cedar and high-grade hemlock) are manufactured by the coastal industry. While structural lumber is largely used in building and related construction applications, appearance grade products feed further manufacturing opportunities in B.C., the U.S. and offshore markets.

Supplementing the primary sector is B.C.'s diverse value-added or secondary processing industry. 153 value-added manufacturing operations are located in 85 B.C. communities with populations of less than 10,000 residents; 55 operations are located in towns with populations between 10,000 and 50,000². The composition of the value-added sector is quite diverse, with the manufacturers producing a wide range of products, including finger-jointed lumber, decking, siding, oriented strand board, plywood, cabinets and components, furniture, windows, doors, cabinets, architectural millwork, veneers, log homes, wood pellets and shakes and shingles. In addition to these traditional outputs, B.C.'s value-added manufacturers also produce a variety of mass timber and next generation lumber products, including glue-laminated timber (glulam), laminated veneer lumber (LVL) and cross-laminated timber (CLT). These products are both complimentary to the existing softwood lumber industry and key components in advanced wood and hybrid building systems that are now reaching heights and sizes not previously possible. As advanced, next generation systems are developed to allow construction of taller and larger buildings, capacity will need to be developed to produce the associated engineered wood products required. Many of these products will be custom designed and are well suited to companies in the B.C. value-added sector.

² Canadian Forest Service Survey, 2012

Domestic vs. export markets

Despite the high proportion of wood use in B.C.'s residential construction sector, and its growing acceptance in non-residential applications in B.C., the domestic market is modest in size and too small to support an industry with global-scale production capacity. Consequently, the B.C. forest industry, by necessity, is highly focused on serving the needs of export markets. By demonstrating innovative uses of wood here in B.C., the Wood First program helps promote acceptance of B.C. wood products and expertise not just here at home, but also around the globe.

Trends and emerging Issues

Urbanization and densification

- As in many countries, British Columbia and Canadian demographics, government policy and social factors are increasing the importance of urban densification. This is driving demand for complete, well-connected, mixed-use neighborhoods that allow residents to work, live, play, shop and learn.
- Sustainable density requires a higher percentage of multi-family housing, commercial and community structures that can stand for 50 to 100 years, often with relatively few modifications. Many of these buildings are being constructed taller and larger than in the past.
- Owners and renters of multi-family housing are increasingly looking for enhanced acoustical performance (reduced noise) and natural materials in their living spaces.
- Vancouver and the Lower Mainland are seeing a trend of young professionals moving away to other areas of the Province or Canada, mainly to find more affordable housing. Cost of housing, particularly in the Lower Mainland, has put a strong focus on construction cost and the need for innovative and affordable solutions.

Changing wood consumption - multi-family, taller structures

- Shifts in building trends indicate that less wood will be used for the same number of housing starts in the future. For example, the shift to multi-family mid-rise wood-frame construction—an average multi-family start in a low-rise building consumes only 39% of the lumber and 36% of the panel volume of a detached start. It is important to expand codes and applications that continue to support the increase of wood and wood hybrid solutions in mid-rise and taller buildings and where growth is occurring.
- Innovations in structural wood and next-generation lumber products (e.g., cross-laminated timber and other engineered wood products) and the related development of advanced building systems are allowing wood to be incorporated in larger and more complex structures, opening up new markets for wood products and buffering producers from the shift away from single family construction.

Manufacturing and construction supply chain capacity

- Knowledge, skill and volume capacity gaps between manufacturers, engineer and design professionals and construction trades and developers (supply chain) continue to be a major barrier to advancing wood use in mid-rise and taller wood residential and non-residential structures.
- In order to achieve the critical market mass required for competitive production in the province, markets are needed outside of B.C. There is a need for a stronger coordination of all B.C., Canadian, U.S. and international organizations involved in education, positioning and promoting wood products and building systems.

Increasing industrialization of construction (prefabrication)

Government and corporate initiatives to better use resources, increase the speed of construction, and reduce on-site waste are increasing the focus on industrialization of construction. Panelization or prefabrication of wall, floor and ceiling assemblies, techniques for which wood is well adapted, is one way this is being accomplished.

Green building

There is a growing importance to minimize the environmental impact of the built environment. In addition, material and energy choices will be increasingly influenced by analysis of environmental impacts in their creation and transportation versus alternatives.

- Like a number of governments around the world, British Columbia and Canada are putting in place policies favouring building practices that mitigate greenhouse gas emissions, non-renewable resource and energy uses, and this trend is expected to continue as efforts to manage greenhouse gases, store carbon and find solutions to climate change move forward.
- Changes in building codes regarding energy efficiency are also challenging historical patterns of wood use. Regulations and consumer preferences are demanding more energy efficient construction. This is forcing a rethink on how external wall assemblies are built. The solution to net-zero or ultra-low energy buildings can take several pathways, but it is clear that conventional wall assemblies will need to evolve. This can present challenges and opportunities for the wood industry.

Wood can be well suited to leverage and address these trends and emerging issues.

Opportunities

- Pursue market sectors for wood and hybrid building and finishing solutions, including five- and six-storey residential and mixed-use mid-rise buildings, non-residential commercial buildings and seven- to 12-storey buildings. Within the non-residential category, offices, retail, restaurants and warehouses sub-segment is of greatest interest because of the allowable wood product use under the current building codes, yet wood is noticeably underrepresented.

- Provide information and technical assistance regarding the 2020 National Building Code of Canada (NBCC) and its implementation in B.C., allowing mass timber up to 12 storeys. There are many building officials who are not current on the latest code developments or who have poor perceptions of wood performance.
- Enhance leadership to commercialize tall wood construction over six storeys.
- Leverage current mass timber, taller wood and hybrid wood projects in B.C. Work could be undertaken with project teams to learn, evaluate and share lessons learned with regards what solutions are best suited for residential, mixed-use and institutional applications.
- As demonstrated in other jurisdictions such as London, Melbourne and Trondheim, take advantage of wood as a lighter building material and target building zones and projects to be located in soft soil conditions such as along waterfronts or over and around railroad and subway lines, for example, Southeast False Creek. Identify and promote unique benefits of wood construction.
- Engage with key building influencers and funders such as BC Housing to raise awareness of wood as a cost-effective, timely and flexible alternative to traditional concrete and steel construction in high-density applications and taller buildings. The Provincial Government is making investments of more than \$7 billion over 10 years in affordable housing across B.C., particularly in the Lower Mainland, provides an opportunity to promote wood or wood-hybrid building solutions. The City of Vancouver has a mandate to offer up to 20 sites of city land for housing projects based on Federal and Provincial financial support to build affordable housing.
- Identify opportunities and approaches for high-quality panelization, modularization and prefabrication, acknowledging the increasing difficulty of finding qualified trades for on-site labour, as well as the need for timely and predictable logistics, construction and costing.
- Strengthen professional and trades training and education curriculums involving future design practitioners and builders who are looking to build skills and expertise portfolios to include new and emerging alternative products and solutions.

However, capitalizing on emerging opportunities will require the forest industry to address a number of challenges. Some represent “threats” driven by factors outside the direct control of the industry or the provincial and federal governments; others reflect “weaknesses” in B.C.’s market capabilities arising from the nature and structure of the resource base and industry in B.C.

Threats and weaknesses

- Supply chain gaps: A stronger coordination of messaging, outreach efforts and priorities is needed to address immediate and mid-term supply chain challenges and opportunities. For example, product and labour supply, as well as best construction practices, opportunities and challenges for nail-laminated timber (NLT) versus cross-laminated timber (CLT) profiles and systems should be exchanged between manufacturers, designer, builders and installers.
- Performance misperceptions: Despite recent research or code allowances, durability and acoustic performance in wood-frame and mass timber/CLT buildings, as well as fire performance, continue to require additional awareness and education efforts.
- Cost and environment perceptions: Developers, insurers, financiers and the construction industry need a better understanding of the costing, speed and environmental advantages of wood and wood-hybrid construction.
- Practicing professionals and trades: There are still many practicing professionals and designers not equipped or trained to design innovative and next generation projects using wood.
- Future professionals and trades: Current architecture and engineering curriculum in post-secondary institutions carries limited wood content, pointing to a potential future shortage of professionals and trades trained in designing, building and maintaining wooden structures.
- Species and supply: Further strategic alignment is needed between anticipated future raw material supply and projects/products to leverage the changing species mix and fibre supply in the province.

Fibre Supply

While the mountain pine beetle epidemic peaked in 2004 and has rapidly declined since then—by 2021, the outbreak will essentially have run its course—it is estimated that more than 18.5 million hectares of B.C.'s Interior forests are affected to some degree. In the next 10 – 20 years, as the beetle-affected timber no longer becomes salvageable, the province's overall supply of mature timber in the Interior is expected to decrease by 15 – 20 percent, when compared to harvest levels before the mountain pine beetle epidemic. In addition, the log quality and recovery in the B.C. Interior will also change affecting both the nature and volume of products manufactured.

While the mountain pine beetle epidemic impacts supply conditions in the Interior, other fibre changes will be experienced on the B.C. coast as the industry shifts to increasing harvesting of second growth forests.

- It is challenging to develop capacity for products manufactured in B.C. beyond a certain point, therefore exploration and development of markets outside of B.C. may be required.
- Concrete and steel industry are concerned with loss of market share and are showing signs of countering Wood First efforts.

Implications

New technologies and applications required to advance wood use

Larger and taller multi-family, multi-storey and non-residential buildings are a key target market for wood products; however, building systems solutions need to be proven and communicated to ensure that such wood structures are built. While most of B.C.'s major developed markets—Canada, U.S. and Japan, as well as significant emerging markets such as China and Korea—are capable of adopting these advanced technologies under the right conditions, the systems have only been recently pioneered in B.C., U.S. and Europe.

B.C. must demonstrate leadership by taking a “first adopter approach” to new building systems at home such as the Wood Innovation Design Centre and UBC Brock Commons. The B.C. government’s Wood First Act and building taller with wood code changes provide examples of encouragement of innovation in wood use in B.C.

Shift up the value chain

There will be short to medium term fibre challenges and changes in product profiles in B.C. Therefore, pursuit of higher value market segments and applications must be the focus for the future. Maintaining the value from the resource will require moving up the value chain and shifting from the earlier emphasis on volume to increasing value. Moving up the value chain within a market by encouraging uses in higher value applications is also seen as the best way to insulate product sales from lower-cost competition.

B.C. must develop and promote the advanced products and systems necessary to construct larger and taller wood buildings. Larger and taller wood buildings is driving a need to strengthen the capacity to provide next generation lumber and engineered wood products.

Increase capacity in the value-added sector

B.C.'s value-added industry provides significant employment and can offer a diverse product range that could be well suited for moving up the value chain (refer to “Opportunities”, above); however, many value-added companies are small with few internal resources.

Assistance may be required to help these firms expand manufacturing capacity, increase capabilities to meet changing technical requirements, and to meet the capacity required for larger and taller wood buildings, in order to access new markets in B.C. and abroad.

Strategic objectives

The following objectives provide direction and context for the Wood First program. Associated with each Wood First strategic objective are general conditions or indicators which provide references for the assessment of progress in advancing these objectives.

Objective 1: Grow the culture of living and building with wood in B.C. and beyond

The beauty of wood, its social and sustainable qualities, and structural properties are valued by all British Columbians as the material to design, build and live with. British Columbians take pride in producing high quality wood products from sustainably managed forests.

Objective 2: Maximize the appropriate use of wood in public and private projects

British Columbians involved in specifying building, finishing and furnishing materials choose wood over other options, in all appropriate parts of design, construction and finishing.

Objective 3: Strengthen B.C.'s capability to produce competitive wood-based products and building systems that create and respond to market demand

B.C. companies continuously invest in equipment, technology and personnel in new or existing operations. They have sound business cases developed from a solid understanding of market demand and supply dynamics, improved product development and manufacturing processes, and effective marketing plans. They support fundamental research and incorporate research results into their operations. Companies collaborate effectively along the supply chain and B.C. has competitive, advanced wood-based products and building systems.

Objective 4: Accelerate adoption of existing and innovative wood-based products and building systems

Architects, engineers, designers, developers and builders specify more wood because they have the skills, ability and confidence to choose wood-based products and building systems over alternatives, encouraging ongoing changes to the B.C. Building Code that facilitate expanded use of wood.

Objective 5: Position B.C. as a world leader in sustainable and innovative wood-based products and building systems in design, production and application

Governments, design teams and customers from around the world visit British Columbia to learn how wood innovation is advancing in the Province, and increasingly draw on innovative B.C. design resources and wood-based products and building systems.

Action plan: demonstrating leadership in B.C.

By demonstrating leadership in wood use and innovation here in B.C., FII supports the Government of B.C.'s objective to generate greater added value in the forest economy and encourages acceptance of B.C. wood products across the globe. Initiatives are based on the realization that long-term sustainability of the forest economy includes actively maintaining, creating and diversifying demand for B.C. forest products. By introducing new and advanced wood technologies and building systems here in B.C., wood is positioned as a preferred building material, and B.C. as a leader in forest product and building system innovation. With this positioning established in the domestic market, B.C.'s forest products can be more effectively marketed abroad for construction, interior design and daily living.

The Wood First program carries out a range of tactics and activities to meet its strategic objectives.

Focus areas

1. Grow a culture of wood

Target audiences: See Appendix A.

B.C. values wood, its finishing qualities and its structural properties, supporting the use of the material to design and build in B.C. by strengthening communication about the benefits of wood as prime building material and nurturing champions in all areas: government, industry, specifiers, educational institutions and public arenas.

- Increase the understanding of the benefits of wood, leading to the establishment of a wood culture
 - Champion and support wood as sustainable and environmentally friendly
 - Position wood as the preferred choice of building materials
- Promote the advantages of wood with architects, engineers, builders, developers and educators
- Strong leadership and industry engagement are required to support a wood culture and advance wood use in B.C.
- Raise awareness of B.C.'s leadership on advancing wood use in B.C.; leverage high profile B.C. projects to encourage similar projects in B.C. and elsewhere
- Prepare and disseminate case studies comparing costs, performance and benefits between wood and non-wood building systems
- Support a consistent brand and messaging that illustrates the benefits of wood as a building material (strength, adaptability, cost-effectiveness, beauty, sustainability, carbon sequestration and other environmental and health benefits), as well as the sustainable resource that B.C. has to offer
 - Build upon “naturally wood”. British Columbia wood. “Sustainable by nature. Innovative by design”
 - Reinforce the need for collaborative messaging and cross promotion of pro-wood activities and materials by all Recipient Organizations

2. Maximize wood use in B.C.

Target Audiences: builders, developers, federal, provincial and municipal government officials, building code + fire officials.

The appropriate use of wood in private and public projects in B.C. is maximized by increasing acceptance of mid-rise and tall wood buildings, as well as enabling immediate and efficient application of new building code provisions.

- Leverage private and public projects to showcase wood construction and champion B.C.'s wood culture; show how using wood-based products or building systems could address specific issues important to local regions and communities
- Enhance level of knowledge and understanding on mid-rise and tall wood buildings, particularly new mid-rise wood-frame building code provisions
- Facilitate and advance engagement of decision-makers in commercial non-residential or other occupancies to increase acceptance and specification of wood in buildings; ensure that wood products get appropriate consideration in provincial and municipal programs for affordable housing, education and community infrastructure
- Focus on regions and municipalities where there is the most building activity and lower wood acceptance (especially, those in the Lower Mainland and the Greater Victoria areas)

3. Strengthen B.C.'s capability and competitiveness

Target Audiences: primary and secondary manufacturers; research institutions;
Ministry of Advanced Education; post-secondary educational institutions

Growing demand for new and innovative wood-based products and building systems, and changes in B.C. timber supply, are driving a need to improve the capacity and effectiveness of all components of the supply chain—primary and secondary manufacturers, specifiers, developers, builders, assemblers, installers—and to strengthen their relationships, to reduce gaps between producers and users. A key part of being successful is the economic viability for each link in the supply chain.

Enabling components of the supply chain to supply effectively, efficiently and competitively involves:

- a) Easy and competitive access to the products
- b) Access to the skilled people required to expand wood use (architects, engineers, tradespeople etc.)
- c) Cross industry knowledge of what is currently available and what is required in the short, medium and long term to achieve the best ROI
- d) Access to market intelligence on jurisdictions who are farther ahead with product innovation. There is a need to look to lessons learned locally and from developments in other jurisdictions. For example, why are EU manufacturers shipping CLT product half-way around the world to Australia and North America?

- Facilitate collaboration in the design of products and building systems to satisfy demand
 - Enable manufacturers to better understand the needs and demands of the markets
 - Enhance the potential for the value-added sector to capitalize on emerging product and market opportunities through technical support to value-added producers to enhance innovation and competitiveness
 - Support research institutions and manufacturers in the development of new equipment, process, and products
- Support development of training programs and/or training materials to facilitate wood use in B.C. by professionals and trades
- Obtain solutions from research on new building systems and related products for quick adoption in various parts of the supply chain. There is a need to better understand:
 - a) The broad range of opportunities for increasing wood use (e.g., alternative solutions, hybrid building systems)
 - b) Innovative manufacturing opportunities for more effectively using B.C.'s wood fibre in mass timber products
 - c) Mid-rise and mass timber taller buildings—Role of project planning, material handling, assembly, connectors, fire safety during construction, environmental and cost advantages
 - d) What can be done to utilize B.C. species such as hemlock in next-generation engineered products? Learn from other jurisdictions, e.g. Japanese use of Sugi and Hinoki

4. Accelerate adoption

Target audiences: assemblers; builders; developers, building inspectors; building code + fire officials; assemblers; primary and secondary manufacturers

The adoption of existing and emerging wood-based products and building systems is accelerated by understanding the advantages of using wood and how to overcome challenges, and by developing proficiency in delivery of wood building systems.

- Facilitate skills development and outreach to the architecture, engineering and design communities to expand wood use and overcome challenges. Priority should be placed on new and next-generation audiences, including post-secondary students and educators.
- Develop and present the opportunities and challenges for wood and hybrid structures in non-residential and higher multi-storey applications to establish wood building systems as a viable alternative to traditional building technologies
- Provide timely information and technical support to architects, interior designers, engineers, builders and developers on wood-based building systems and design options (for example, cost advantages, green credentials, competitive advantages)
 - To provide guidance in reviewing applications of existing building code provisions and in evaluating new building systems
 - To deliver products and building systems effectively
- Increase the capability of the construction sector to build with wood by enhancing the technical skills of contractors and developers to utilize wood products and systems
- Ensure government and code officials are aware of code change opportunities

- Facilitate collaboration between manufacturers, architects, engineers and builders to broaden market penetration of wood products and building systems
- Supporting early adopters as they continue to embrace and commercialize new products and innovations in building system
- Support demonstration projects that showcase wood or wood-hybrid construction and/or new products and building systems

5. Position B.C.

While B.C. can provide leadership in advancing wood use, the real value will occur when other jurisdictions follow B.C.'s example. The advantages of wood and availability of a wide range of B.C. species, manufacturers and building expertise should be strategically positioned in high-potential markets. Through FII's related programs, make available to B.C.'s funded and offshore programs (such as the Canada Wood Group) the materials and lessons learned through B.C.'s leadership.

6. Program funding efficiency

- Align recipient activities to ensure the highest return on the investment. Ensure that recipients actively coordinate activities and audiences to provide the best possible return on investments under the program and avoid duplications. Leverage investments across other organizations to achieve maximum benefit from limited funding available.
- Encourage longer-term strategic planning versus annual planning for funding only. Funding proposals should be in the context of this three-year strategic plan and longer-term plans of the delivery organization.

Performance measures and indicators

Funding recipients are accountable for funding received and are expected to assess and report on deliverables and outcomes of their funding programs and activities. FII continuously assesses these outcomes to refine the Wood First program strategy and priority investments.

The quantitative and qualitative measures and indicators for the Wood First Program objectives are measured and tracked in the annual FII Service Plan, annual recipient agreement key performance measures, and bi-annual Wood First Preferences and Perceptions of Wood in BC survey. As part of the ongoing process, data will be collected to inform target setting with updates made accordingly.

Program Goal:

British Columbia is a leader in using innovative forest products and building systems

- Total sales (CAD, millions) of wood attributable to program interventions—B.C.’s non-residential and multi-storey/multi-family residential construction markets
- Percentage of wood use professionals who agree that B.C. is advancing the use of wood through innovative design and building solutions

Objective 1: Grow the culture of living and building with wood in B.C. and beyond

- Value wood as important to the aesthetics and spirituality and identify wood as an environmentally friendly choice
- Are drawn to use local wood from an economic, environmental, cultural and health and wellbeing standpoint
- Understand why and where wood is a good choice and use it appropriately for a wide variety of applications
- View wood as an intrinsically high-quality product and are willing to specify wood
- Support continuing education of practising professionals, including specifiers, approvers, and implementers, by providing workshops, conferences, tours and in-house seminars
- Enhance learning and teaching materials for students and educators in the provincial education system—trade schools, and universities—by working with instructors to aid in delivery of wood design courses and to improve wood design curriculum

Objective 2: Maximize the appropriate use of wood in public and private projects

- Use wood for innovative and new applications and take full advantage of changes to the B.C. Building Code that allow for expanded use of wood, including building taller and larger
- People involved in specifying building materials and furnishings choose wood over other options, in all appropriate parts of design, construction, and finishing
- Appropriate and ongoing changes to the B.C. Building Code expand the use of wood in all building types
- Public projects adhere to the spirit of the Wood First Act; municipalities express desire for wood use and/or sustainable/low carbon footprint material policies

- Reduce code-related and policy barriers to using wood in structural and architectural applications by supporting development of design guidelines and research on fire safety of wood building assemblies

Objective 3: Strengthen B.C.'s Capability to produce competitive wood-based products and building systems that create and respond to market demand

- B.C. companies continuously invest in equipment, technology and personnel in new or existing operations.
- B.C. hosts world-class research and development for wood-based products and building systems and is a world leader in methodologies and products throughout the supply chain.
- Effective collaboration along the supply chain ensuring B.C. has competitive, advanced wood-based products and building systems.
- Help B.C. value-added manufacturers improve their capacity by working with them to improve production, marketing and business processes

Objective 4: Accelerate Adoption of existing and innovative wood-based products and building systems

- Code committee members and building code officials process code changes and permits submissions in a timely and efficient manner.
- Performance-based codes are in place.
- Research and development support efforts to develop a performance-based building code.
- Public investment supports the implementation of building code changes and practitioner training.
- Policymakers and officials support the adoption of emerging wood-based products and building systems.
- Improve performance of wood in applications that offer significant market potential by ensuring specific research is undertaken on critical components and emerging wood building systems

Objective 5 – Position B.C. as a leader in sustainable and innovative wood-based products and building systems in design, production and application

- B.C. showcases the use of existing and emerging wood-based products and building systems in design, manufacturing, and construction.
- Domestic and international audiences seek out B.C. expertise, design professionals and product suppliers.
- Reach key audiences—public and students, government, design community, contractors and developers, architects and engineers, builders and buyers, and trade media—to increase the awareness and understanding of B.C.'s wood species and products, as well as the opportunities and benefits of building with wood

For this strategy, progress will be measured through achievement of program goal and objectives, as tracked through key performance measures and related target levels.

Performance measure	2019/20	2020/21	2021/22
	Target	Target	Target
Total sales (CAD, millions) of wood attributed to program interventions—B.C.'s non-residential and multi-storey/multi-family residential construction markets.	\$63	\$68	\$68 or greater

Data Source: Canadian Wood Council

Performance Measure	2018 Result	2019/20 Target	2020/21 Target	2021/22 Target	2022/23 Target
Percentage of professionals that think the B.C. wood products sector is known for its ingenuity in developing new products.	78%	n/a	79%	n/a	80%
Percentage of general population that think wood is an important part of B.C.'s culture today.	77%	n/a	79%	n/a	81%
Percentage of general population that think wood will be an important part of B.C.'s future.	72%	n/a	74%	n/a	76%
Percentage of specifiers that think wood is an important part of B.C.'s culture today	92%	n/a	90% or greater	n/a	90% or greater
Percentage of specifiers that think wood will be an important part of B.C.'s future	91%	n/a	90% or greater	n/a	90% or greater
Percentage of specifiers that have used structural wood for any or all building components in the past two years.	50%	n/a	52%	n/a	54%

Data Source: FII, Wood First Preferences and Perceptions of Wood in BC bi-annual Survey

Appendix 1: Target audiences

Audience	Definition
Architects	Persons who plan, design, and review the construction of buildings
Assemblers*	Those who (in-plant or on-site) take wood-based components and assemble into a wood-based product (e.g. assemble engineered wood panels, insulation, barriers and cladding into a pre-fabricated wood wall product)
Builders*	Run a construction project; work with both assemblers (off-site) and installers (on-site)
Building and fire officials—municipal and provincial	Officials concerned with building performance and fire safety
Building inspectors	Persons who ensure that the construction and quality of buildings meet codes and standards
Consumers	Persons considering making a purchase of, or who have in the past purchased, wood-based products or building systems
Developers	Persons who assume the risk and reward to add value to real estate. They arrange rezoning, financing, design, construction and sales/leasing to meet market demand
Educational institutions—Ministry of Advanced Education	The ministry ensuring B.C.'s post-secondary system delivers value while providing educational and training opportunities for young people entering the workforce and existing workers who need to upgrade their skills
Educational institutions—Ministry of Education	The ministry ensuring B.C.'s school system provides children with the knowledge, skills and abilities needed to contribute to a healthy society and prosperous and sustainable economy.
Educational institutions—post-secondary	Includes public education institutions (universities, institutes of technology, colleges), private and out of province public degree granting institutions, seminaries and theological colleges, First Nations-controlled institutes, and other private career-training institutions
Elected officials—municipal and provincial	B.C. elected municipal government officials (includes city, town or village incorporated for local self-government) and provincial government officials

Engineers	Persons who analyse and design buildings and the built environment with expertise in performance of building materials and structural analysis, works closely with architects and other engineering specialists.
Influencers	Anyone (government, non-government, industry, public, etc.) who can affect a purchasing decision at some point in the value chain. Need to identify the specific influencer (person) in each situation, and target communication to that individual
Installers*	Persons who install pre-manufactured products, with some site-fabrication as necessary, on a construction project
Insurer	Persons or company that underwrite an insurance risk
Financiers	Persons or company whose business is providing, investing or lending money.
Manufacturers—primary*	Manufacture raw materials or materials in their near-natural state (e.g. logs) to produce primary products such as cants, lumber
Manufacturers—secondary*	Further process products that have already undergone some manufacturing (e.g. lumber) to produce value-added products (e.g. doors, cabinets, walls, flooring, furniture, glulam, plywood)
Public institutions	School boards, facility manager associations and authorities responsible for the decisions related to public services infrastructure such as schools, healthcare etc.
Quantity surveyors	Persons with expert knowledge on construction costs and contracts who provide services such as cost consulting, cost estimating, value determination, risk management and calculation
Research institutions	Private or public organizations that carry out research into wood-based products or building systems

*In this document, **supply chain** is defined as a chain of events that transforms natural resources, raw materials and components into a finished product that is delivered to the end customer. The audiences involved in the supply chain are considered to be manufacturers—primary and secondary, architects, engineers, quantity surveyors, builders, assemblers and installers.