LUMBER BOARD

2021 Q3 Quarterly **Investment Update**

ESG Offers Important Opportunity for Wood Industry to Convey Environmental & Social Impact to Key Stakeholders

By: Summit Strategy Group

On behalf of the SLB, Summit Strategy Group recently assessed the environmental, social, and governance (ESG) performance of the U.S. softwood lumber industry. The report explored market, reporting, and regulatory trends, and it benchmarked industry performance relative to competitive building materials and supply chain expectations. ESG refers to how businesses measure and report their environmental and social performance. Already widely adopted by publicly traded companies, ESG is increasingly used by private firms to boost performance, reduce risk, and increase value.

Our analysis indicates that the softwood lumber industry is well positioned to turn ESG into an advantage if it takes action to improve transparency and disclosure, setting and communicating targets on issues like climate change, biodiversity, and sustainable land-management practices. A major driver of ESG performance is what a company discloses publicly. Investors, ratings platforms, and analysts look for specific nomenclature within corporate ESG communications materials when evaluating a company's performance. ESG disclosures must embrace this specific language or run the risk of not receiving credit for ESG performance.

Climate change is the most significant environmental issue and presents both risks and opportunities for the softwood lumber industry. While weather events, regulatory pressures, and growing demand for disclosures pose risks to the industry, wood's ability to capture and store carbon offers a clear opportunity for differentiation in the ongoing shift to a lowercarbon economy. Wood's challenge lies in the absence of widespread industry goals and transparent communication on corporate efforts to mitigate emissions, without which wood's benefits may be overshadowed by the perception that competing industries are more committed to climate action.

Concrete and steel have both been scrutinized as highemitting industries. In response, both have spent considerable effort and capital in recent years to set, communicate, and pursue aggressive carbon-reduction targets as key business indicators. These in turn have spurred innovation and collaboration, while driving industrywide progress toward lower emissions and alleviating some of the investor pressure related to climate. While not as advanced, the composite industry, too, has committed itself to ESG reporting and performance.

Wood's retail and finance partners are also adopting ESG goals and reporting, with a keen interest in reducing risk in supply chains. Third-party certifications, which attest to wood products' sustainable management and harvest, are increasingly trusted tools for retailers, such as Home Depot and Lowe's, and banks as they contemplate their procurements and investments

Based on the current trends and operating environment, we believe that the U.S. softwood lumber industry should embrace ESG as a business best practice that can protect and grow market share.

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Having comparatively lower risk and emissions profiles will not be enough; rather, it will be critical for the industry and its member companies to improve reporting, set ESG targets including net-zero emissions, and address the issues of biodiversity, land management, and old-growth forests, which affect license to operate and corporate reputation. Biodiversity has garnered the attention of investors who use the issue to assess investment risk. Companies that are taking action to protect biodiversity appear as a less risky investment than those that are not fully addressing the issue and, therefore, may benefit from more positive investor actions. We look forward to working with the SLB and its members to help the industry harness ESG as a tool to communicate both the sector's performance and the unique value proposition of lumber products.



Summit Strategy Group is a California-based consulting firm specializing in corporate reputation, issues management, crisis communications, ESG, and sustainability.

Innovative, Repeatable, Flat-Pack Modular School Solution Under Development in California

WoodWorks is tracking the development of a repeatable, prefabricated school solution using cross laminated timber (CLT) and glulam, which is being piloted by Aedis Architects, Daedalus Structural Engineers, and XL Construction in partnership with Sacred Heart Schools in Atherton, California.

The pilot's first output, a 4,000-square-foot, four-classroom building, was recently constructed over 12 weeks and is now available as a project example on the <u>WoodWorks Innovation</u> <u>Network</u>. Because Sacred Heart is a private school, the initial project was not bound to the California Division of State Architects (DSA) code; however, the project team had DSA compliance in mind from the outset in the hopes of developing broadly replicable, 4,000- to 9,000-square-foot schoolhouse options.

Though the price of the pilot came in slightly higher than typical modular construction, the costs were considerably less than conventional construction, thanks to time and labor savings, and the combination of cost, speed of assembly, and durability may make flat-pack structures a viable solution for many school districts nationwide.



The SLB and USDA Debut Mass Timber Competition

The SLB and USDA Forest Service recently launched the \$2 million <u>Mass Timber Competition: Building to Net-Zero</u> <u>Carbon</u> to showcase mass timber's innovative applications in architectural design and highlight its significant role in reducing the carbon footprint of the built environment. The competition, which is being managed by WoodWorks, will award \$2 million in total grant funds to winning project teams, enabling them to design and build repeatable, scalable mass timber buildings in the United States using sustainable wood products.

Submissions are due in March of 2022, and winners will be announced that summer. While commercial, institutional, mixed-use, and affordable housing projects are all eligible, the judges will give scoring preference to sectors where wood and hybrid construction are historically underrepresented, such as healthcare facilities, warehouse distribution centers, big-box retailers, and six- to 18-story buildings. Throughout the lifetime of the grants, WoodWorks will document and share the projects' lessons learned, cost analysis, wholebuilding life cycle assessment results, carbon accounting analysis, and research findings to support replication and future mass timber developments.

The new Mass Timber Competition is the first joint initiative launched by the SLB and USDA since the renewed MOU in September, committing both parties to collaborate on research, technology, and market development to expand the use of wood in the built environment and as a natural climate solution. If the past is any indicator, this year's competition should give the industry cause for optimism — research and innovation arising out of a past winner, Framework, a 12-story timber prototype in Portland, Oregon, directly paved the way to the 25-story Ascent tower under construction in Milwaukee.

Think Wood Rekindles Event Sponsorships to Promote Wood's Value Proposition

Think Wood is ramping up its trade show sponsorships and event participation to bring wood's story to specifiers and influencers nationwide. This fall, Think Wood reached thousands of industry professionals in person and virtually through its sponsorship of the Multifamily Executive Conference in Las Vegas; Architectural Record's virtual Innovation Conference: CTBUH's 2021 International Conference in Chicago; and a series of four digital conferences hosted as part of AIA's 2021 Conference on Architecture. Sponsorships entailed Think Wood placing its branding, messaging, and content in materials, staging, and supporting media and having speakers on relevant panels. For example, at the Multifamily Executive Conference, Think Wood aired its *Legacy* video as part of a main stage Developer Panel, which, at Think Wood's behest, also featured staff from New Land Enterprises who spoke about the ongoing development of Ascent.



Starting in August, the Think Wood Mobile Tour also resumed in-person engagements, making stops at the Forest Products Machinery & Equipment Expo in Atlanta, Northern Arizona University, the Greenbuild International Conference & Expo in San Diego, the Boston Mass Timber Accelerator Launch, the National Mall in honor of Forest Products Week, an architecture student networking event at Catholic University in Washington, D.C., and the Design Build Institute of America Expo in Denver. The Mobile Tour welcomed more than 5,000 architects, engineers, contractors, policymakers, and emerging professionals during these stops.

WoodWorks Helps Award-Winning Architecture Firm Realize Its First Mass Timber Project

WoodWorks first met Southern California representatives from award-winning architecture and engineering firm HDR at a Structural Engineers Association event where WoodWorks had a booth. Despite its impressive portfolio, HDR's Southern California office had never designed a mass timber project. The firm eagerly took WoodWorks up on an offer to present a lunchand-learn and help HDR's design team learn more about the material and its attributes.

Following the lunch-and-learn, HDR shared conceptual drawings for a new, 108,000-square-foot OC Sanitation District Headquarters in Fountain Valley, California; HDR had vetted other materials already but was interested in possibly switching to CLT. WoodWorks immediately provided information and advice on material layouts, lateral force-resisting systems, and potential manufacturers, ultimately empowering HDR to opt for wood. As the design progressed, WoodWorks continued to answer questions and offer technical input related to construction type, fire walls, finishes, options for exposed wood, sprinkler requirements in concealed spaces, California-specific requirements for mixed-use occupancies, and City of Los Angeles requirements for CLT products.

According to HDR, "WoodWorks was instrumental in helping to educate our team. This is a newer, evolving industry, and changes are happening frequently, so having WoodWorks consult and inform us about industry trends and recommendations was extremely valuable."

The OC Sanitation District Headquarters, now being built, is set to consume the equivalent of nearly 1.9 MMBF of softwood lumber, or more than 17.5 board feet per square foot of construction. At WoodWorks' suggestion, HDR also entered the project in the California Mass Timber Building Competition, where it won a \$40,000 prize.

> OC Sanitation District HQ, Type III-B, three stories of mass timber 1,892,571 board feet, Courtesy: HDR



Code:

American Wood Council

- The AWC facilitated several industry wins during ICC Group A public comment hearings in September, including an AWC proposal to eliminate an overly restrictive code interpretation that adds cost and complexity to large, multifamily, wood-frame construction, and a proposal to permit fully exposed mass timber ceilings in wood buildings up to 12 stories.
- In Q3, the AWC launched an online platform to collect Environmental Impact Surveys, including confidential mill-level data, which will support the development of industrywide environmental products declarations (EPDs) and robust carbon reporting. It also formalized an agreement with Building Transparency to strengthen data standards and oversight.
- The AWC's Fire Service Relations program met with and presented to fire officials in Wisconsin and the District of Columbia to build their capacity for tall mass timber, and with the National Fire Academy in Emmitsburg, Maryland, on possible education partnerships.

Communications: **Think Wood**

- Year-to-date (YTD), Think Wood has assisted with 27 projects (8% of WoodWorks' total reported projects), resulting in more than 37 MMBF of incremental softwood lumber demand.
- Media sponsorships targeting the architecture, engineering, and construction communities were the largest generator of new contacts in Q3.
- Think Wood's lead nurturing program has generated 27 sales qualified leads YTD, representing a total of 1.9 million square feet of prospective wood building space. The Mass Timber Design Manual, developed with WoodWorks, continues to be a key lever in nurturing prospects into qualified leads.
- Think Wood launched a new publication the <u>Mass Timber</u> <u>Digest</u> — a 30-page journal on mass timber research, design, and innovations. The Digest was a top performer in the quarter, having been downloaded over 3,600 times and promoted by industry leaders, including Sidewalk Labs, Gensler, Fast + Epp, MGA, Armstrong-Douglass, and Aspect Structural Engineers.









Construction and Conversion:

WoodWorks

- In Q3, WoodWorks directly influenced and converted 112 projects, a 10.5% increase over the same period last year, and indirectly influenced an additional 310 projects. Together, these projects represent 21 million square feet of wood construction and 193 MMBF of incremental demand. Approximately two-thirds of the projects reported this quarter were multifamily.
- YTD, WoodWorks has converted 336 projects to wood, which have generated 596 MMBF of incremental demand (82% of its annual goal), an 11% increase versus the same period last year.
- WoodWorks published the <u>U.S. Mass Timber</u> <u>Construction Manual</u>, which addresses critical information gaps and assists general contractors and installers in successfully bidding for and completing mass timber projects.
- WoodWorks undertook new research to better understand how design professionals use whole-building life cycle assessments to make sustainable design decisions and identify entry points to expand the use of wood.

Education:

- The Wood Institute has nearly 1,300 registered users and nearly 2,300 course completions YTD, yielding more than 3,250 learning hours. Architects continue to form the majority of new users and course takers (over 40% each). WoodWorks produced the top-performing courses for the quarter, covering topics related to light-frame construction, sustainable sourcing and building, mass timber hybrid systems, and wood lateral-resisting systems.
- The SLB's sponsorship of the <u>Timber Education Prize</u>, administered by the Association of Collegiate Schools of Architecture (ACSA), concluded the entry period with 29 submissions representing 21 architecture schools. The Timber Education Prize recognizes effective, innovative curricula that create an effective environment for learning about timber as an ideal building material. Eight awards of \$8,000 each will be granted when judging concludes in January 2022.
- Funded programs continued to focus on education efforts: WoodWorks delivered over 8,300 hours of education and training in Q3, and nearly 28,420 hours YTD; more than 4,500 Think Wood continuing education courses were completed in Q3, generating 1,038 new contacts in Think Wood's database; the AWC reached nearly 5,200 professionals and provided over 6,460 education hours through 17 education and fire service training events.









Think Wood Media Sponsorships Attract Hundreds of New Contacts to Industry

Think Wood's shift from an awareness-oriented campaign to a familiar, sought-after resource for the design and construction industry is yielding positive results, including in reaching and educating new audiences and generating leads that are translating into more wood buildings. Media sponsorships, which incorporate webinars, content development, and targeted promotions, were the top source of new contacts for Think Wood's database in Q3, at 1,801.

ARCHITECTURAL R BISNOW COMMERCIAL OBSERVER

Examples from the quarter include sponsoring a Bisnow webinar, "Prefab Construction & Emerging Development. Solutions," in July, which reached 327 contacts, as well as an August Architectural Record webinar, "How Sustainable is Wood?," which reached 710 live attendees and generated 517 resource downloads and 891 new contacts. Both webinars featured designers and developers recognized for their expertise in timber construction, as well as sustainability experts, enabling attendees to learn about wood design and decision-making processes and gain perspective on tools and strategies for quantifying the environmental impact of their material choices.

Think Wood also sponsored a panel at <u>Commercial</u> <u>Observer's 2nd Annual Sustainability Forum</u> in September, *Welcoming Communities Through Sustainable Designs: Enhancing Urban Aesthetics & Giving People a Place to Connect*, which yielded an additional 523 new contacts for Think Wood's database.

The AWC & WoodWorks Connect With Department of Labor to Increase Mass Timber Training

The shortage of experienced skilled labor is a significant barrier to the nationwide uptake of mass timber building systems. The AWC has met with staff from the U.S. Department of Labor (DOL) and Department of Commerce to share with them our industry efforts to meet this challenge as they explore potential solutions through existing DOL programs. At one meeting, WoodWorks joined the AWC to present their Mass Timber Construction Management and Installer Training programs as one potential road map to overcoming the skills and labor gap. DOL staff expressed optimism that existing apprenticeship program sponsors could use WoodWorks' curriculum to increase awareness of training opportunities. WoodWorks currently has installer training programs in place at eight training centers and plans to expand to at least 12 more in 2022. These centers will offer more than 10,000 installer training hours across the United States and will dovetail with WoodWorks' train-the-trainer program with the United Brotherhood of Carpenters International Training Center as a means to efficiently scale training.

WoodWorks is also increasing construction management capacity through hosted and third-party events. WoodWorks held three national-level workshops in 2021, delivering 1,922 training hours to 849 attendees. In 2022, WoodWorks expects to offer construction management education through at least five national-level webinars and conferences, 11 regional seminars, and two university-hosted construction management programs, including at Michigan State University.

In 2022, increased SLB funding to the AWC will support training and outreach to more building officials at local levels. The AWC is finding that adoption of mass timber building codes is only one step, and many jurisdictions then require additional training to ensure that officials are up to date and able to correctly enforce the new code.



WoodWorks to Provide Technical Support to Grant Winners

The SLB and WoodWorks are rolling out new efforts to scale up WoodWorks' expert technical support provisions. With funding from the SLB, USDA Forest Service, and ClimateWorks Foundation, the Boston Planning & Development Agency and the Boston Society for Architecture recently opened a Mass Timber Accelerator to expand the use of mass timber in Boston and New England. The accelerator will award up to 10 \$25,000 grants to support feasibility studies and other planning processes for mass timber construction projects. As part of their award, grantees will also receive technical assistance from WoodWorks; in particular, this will help teams that have historically defaulted to steel and concrete to successfully transition to and realize the comparative economic, environmental, and performance benefits of wood construction.

If the Boston Mass Timber Accelerator is successful, the SLB and WoodWorks hope to encourage similar concepts with other cities as a means to further scale WoodWorks' technical support and positive return on investment for the softwood lumber industry.

A Think Wood-Facilitated Journey to Wood

The Annex is a four-story affordable housing complex in Portland, Oregon, co-developed by Catholic Charities of Oregon and Sister City. Once complete, it will be the first mass timber affordable housing building in the Pacific Northwest.

Behind the scenes, the Annex also serves as a powerful and tangible example of how Think Wood and WoodWorks coordinate and leverage one another's strengths to help move a designer to wood. The Annex's wood story began when architect and principal Ben Carr contacted the WoodWorks Help Desk with a question about CLT floor assemblies. Over the next eight months, Think Wood engaged Carr repeatedly with its multipart Architect email series and other carefully curated content to draw attention to mass timber resources and learning opportunities. Think Wood's nurturing led to Carr's participation in a WoodWorks webinar and, later, a building tour. This steady, tailored, multitouch-point engagement paid off – Carr ultimately chose wood; the Annex is now under construction with an estimated project square footage of 15,800; and WoodWorks continues to render valuable technical support to ensure the project's success.



Specification Journey of Ben Carr



THE ANNEX APARTMENTS 4-story CLT/light-frame hybrid, Type III-B 15,800 square feet | 246,029 board feet

15.57 board feet/square foot

Audience Survey Highlights Successes, Areas for Improvement to Increase Wood Use

Prime Consulting teamed with Clear Seas Research to survey more than 500 architects, engineers, developers, contractors, and code officials to better understand and benchmark the impact that the SLB and its partner organizations are having on wood's use and traction in the marketplace. The SLB commissioned comparable surveying in 2015 and 2018 and, using all results, can chart changes in impact over time.

Among this year's key findings, respondents reported a sizeable increase in the use of wood as a structural element compared with prior years. Whereas in 2015, 56% of eligible respondents indicated that they often or always use wood, that number jumped to 85% in 2021. Higher involvement with the wood industry made an important difference and was associated with more wood use over time.

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This year's survey also suggests that the SLB's programs, especially WoodWorks, have been able to shrink the conversion gap and effectively move specifiers from awareness to usage by upward of 10% for five priority building applications, including using cantilevered diaphragm designs, wood for Type III construction, and wood as a structural material in buildings four stories or higher.

Looking ahead, respondents cited educating designers and installers; disseminating project examples and

case studies; and emphasizing wood's qualities such as strength, renewability, aesthetics, ease of handling, and speed of construction as key to increasing structural wood use even further.

The SLB will continue to analyze the survey insights and work to optimize its program performance, return on investment, and overall market impact. To download the report's executive summary, visit <u>info.softwoodlumberboard.org/building-</u> <u>professional-study</u>.

Progress on Carbon Data Projects

Timber construction was repeatedly cited as a viable way to reduce carbon emissions from the building sector during COP26 in Glasgow. The SLB is doing its part to motivate increased use of wood products for their climate benefits and, in Q3, progressed on three priority carbon projects:

- Data procurement and compilation are underway toward the development of an A4 transportation tool, which will calculate the emissions associated with wood product transportation from a mill to a building site. The tool will be available for incorporation in whole-building life cycle assessments by early 2022.
- A website is being designed and survey data collected to support the development of a fiber sourcing tool, which will compile information about the source of harvested wood at manufacturer and regional levels and associated certifications. Seven wood products manufacturing companies have signed on to pilot test the tool; additional industry members who wish to join the pilot program should contact the SLB.
- The SLB and the National Council for Air and Stream Improvement (NCASI) are finalizing a scope of work to undertake an initial research and methodology development phase toward the creation of a woodshed tool that will report carbon growth and drain by wood supply area at mill and regional levels and calculate land carbon values.

In 2022, the AWC will take the lead on carbon and sustainability on behalf of the softwood lumber industry with increased funding from the SLB. The U.S. Endowment for Forestry and Communities is also focused on advancing industry positions on carbon and life cycle assessments in standards and developing industrywide carbon accounting data.



About the SLB

The Softwood Lumber Board (SLB) is an industry-funded initiative established to promote the benefits and uses of softwood lumber products in outdoor, residential, and non-residential construction and to increase demand for appearance and softwood lumber products.