Mitigateway

Mass Timber Insurance Data Trust

Feasibility Study and Prototype Case Studies

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SHARE AVAILABLE DATA

CAPTURE INDUSTRY EXPERTISE

BALANCE MASS TIMBER INSURANCE RATES

EXECUTIVE SUMMARY

Mass Timber construction is increasingly positioned as a key pathway to support Canada's low-carbon building goals; however, material barriers continue to constrain its ability to scale. Notable among these are insurance availability, cost, and conservative underwriting practices that limit broader adoption. Industry stakeholders consistently identify limitations in available claims and loss data as one of several factors contributing to conservative underwriting.

The **Mass Timber Insurance Action Plan**, led by the Climate Smart Buildings Alliance and the Canadian Wood Council, commissioned this feasibility study in collaboration with industry stakeholders. The study assessed whether a shared, neutral **Mass Timber Insurance Data Trust** could address key data gaps and improve market confidence. It also examined whether such a mechanism could be operationally sustainable, materially useful to insurers, and capable of supporting improved insurability and lower premiums in the near to medium term.

Key Findings

Engagement with insurers, brokers, contractors, and engineers revealed broad consensus on several critical points:

- **Traditional claims data is insufficient** to support near-term actuarial modeling or materially influence pricing and capacity. Current loss volumes remain low, heavily skewed toward high-severity outcomes, and are already largely visible to major insurers due to subscription-based insurance structures.[1]
- **Underwriting conservatism is driven primarily by uncertainty over loss mechanisms and outcomes**. Key areas of uncertainty include construction-stage fire, water and moisture damage, repairability of Mass Timber elements, contractor response practices, and owner acceptance following remediation. In order to generate decision-relevant evidence for underwriters on these topics, these unknowns will likely require a targeted research strategy rather than a database of historical claims alone.
- **Below-deductible incidents represent a significant blind spot** in current insurance data frameworks. These incidents occur frequently, are actively managed by contractors, and often prevent escalation into insured losses. Yet these occurrences remain invisible to insurers; as a result, perceptions of the "typical" loss become anchored to a limited set of higher-severity, high-profile claims rather than the full distribution of events. Critically, there is also no structured framework to document and share the factors that prevented escalation, constraining insurers' ability to build causal understanding of risk and mitigation effectiveness.
- **Contractor experience and organizational maturity are leading risk differentiators**, but insurers lack consistent, credible data to distinguish higher-performing contractors from less experienced ones.

[1] A subscription-based insurance structure refers to a policy arrangement in which multiple insurers (or "subscribers") share the risk for a single policy or project. Each insurer takes a defined portion of the total coverage, contributing to premiums and assuming liability proportionally. This structure is common for large or complex projects, allowing risk to be distributed across several carriers rather than concentrated with a single insurer.

Strategic Pivot and Pilot Outcomes

Initial research with insurer participants determined that limited additional data value would be provided by increasing access to centralized claim data, as the subscription structure already provided participating insurers with access to this data. In hopes of identifying new data sources, the study pivoted to testing the feasibility of collecting contractor-supplied, below-deductible case study data. A targeted pilot and prototype confirmed that:

- Contractors can provide meaningful, real-world information on incidents, mitigation actions, repair outcomes, and lessons learned.
- Insurers view this data as valuable for underwriting confidence, risk selection, and risk engineering judgment, though not as a direct input to pricing or actuarial models. Feedback was consistent that this data alone is not sufficient to affect pricing or capacity decisions.
- There is a material misalignment between the barriers contractors must overcome (including administrative and documentation effort, as well as legal, confidentiality, and competitive concerns) and the incentives, recognition, or decision leverage insurers are currently prepared to offer in exchange for this data. As a result, a contractor-led, below-deductible case study model does not, on its own, present a viable path to sustained participation or scale.

Overall, the study found that while such data can help moderate uncertainty-driven conservatism over time, it does not overcome the structural constraints shaping current underwriting and portfolio decisions in the near term.

Conclusion

A **Mass Timber Insurance Data Trust** could serve as enabling infrastructure to reduce uncertainty-driven conservatism in underwriting and risk engineering, but it cannot function as a standalone solution. Meaningful near-term impact will require deliberate alignment with complementary initiatives within the broader **Mass Timber Insurance Action Plan**. By using the Data Trust to directly inform and support contractor verification frameworks, repairability research, and alternative capacity-building and risk-transfer mechanisms, a structured and credible data framework can improve market confidence, strengthen insurability, and help create the conditions required for Mass Timber construction to scale in Canada.

BACKGROUND

Project Context

Mass Timber construction has gained significant momentum in Canada due to its sustainability benefits, construction efficiency, and architectural potential. However, despite growing technical capability, insurance availability, cost, and terms remain a material barrier to broader market uptake.

The **Mass Timber Insurance Action Plan** is a collaborative project between the Climate Smart Buildings Alliance and the Canadian Wood Council, in partnership with a range of building and insurance industry stakeholders. The broader project seeks to unlock insurance capacity and reduce risk-driven pricing conservatism for Mass Timber construction, thereby supporting wider market adoption in Canada.

Project Objectives

A recurring message from insurers is that conservative pricing and limited capacity in the market is driven by limited and unavailable loss and actuarial data. This feasibility study was designed to test whether a **Mass Timber Insurance Data Trust** could serve as a mechanism to close this identified data gap.

Specifically, the study sought to assess whether a shared, neutral data structure could be established to collect, standardize, and govern loss information in a way that is both operationally feasible and materially useful to insurers, while supporting the project's ultimate goal of removing elevated insurance rates as a structural barrier to wider adoption of Mass Timber in Canada within 5-10 years.

FEASIBILITY STUDY

Throughout this project, the **Mass Timber Data Trust Task Group** engaged a cross-section of industry leaders including global insurers, specialist brokers, contractors, and engineers to evaluate the feasibility of a centralized **Mass Timber Data Trust**.

The task group employed a multi-stage stakeholder engagement process designed to identify the critical barriers to insurability related to loss and claim data. Engagements were guided by a standardized questionnaire (see Appendix A – Stakeholder Questionnaires) and consisted of in-depth interviews focused on three core pillars:

Top Perceived Risks & Loss Drivers

Operational Underwriting & Risk Engineering Frameworks

Actuarial Data Requirements

Top Perceived Risks & Loss Drivers

We explored insurers and brokers real-world claims experience, as well as the technical vulnerabilities that most strongly influence current risk assessments for Mass Timber projects. These discussions focused on identifying:

- Existing loss types that disproportionately drive concern or conservatism;
- Construction-stage versus in-service risks; and,
- The factors that elevate perceived severity, even in the absence of frequent losses.

By isolating these drivers, the Task Group was able to map the specific concerns the Data Trust would need to address in order to improve market confidence.

Operational Underwriting and Risk Engineering Frameworks

We examined how Mass Timber risks are evaluated within insurer's underwriting and risk engineering workflows, including how projects are screened, categorized, and advanced through internal approval processes.

Particular emphasis was placed on understanding the interaction between risk engineering assessments and actuarial or portfolio constraints, including how decisions to accept the project and offer capacity or reject the risk outright are made before pricing is even considered. This helped clarify where additional data could realistically influence outcomes, and where structural constraints limit flexibility.

Actuarial Data Requirements

Finally, we explored the data granularity, formats, and variables insurers identified as necessary for long-term, high-fidelity risk pricing. These discussions helped distinguish between:

- Data that could meaningfully inform underwriting confidence and risk selection in the near term; and
- Data required to support traditional actuarial modeling and portfolio-level pricing over a longer horizon.

This distinction proved critical in shaping the scope and expectations of the feasibility study.

INTERVIEW SUMMARY & INSIGHTS

The following insights represent a synthesized consensus across the primary insurance and brokerage markets involved in the Mass Timber sector.

Loss Types of Primary Concern

While fire has historically dominated insurer attention and remains a material severity concern, water damage is now widely viewed as the most significant attritional risk during Mass Timber construction. Insurers emphasized the cumulative impact of frequent moisture ingress events, particularly during early construction stages prior to full enclosure. These incidents, while often below deductible on an individual basis, are seen as a persistent driver of cost, complexity, and dispute. Large, complex moisture ingress losses remain especially salient for insurers, informed by recent high-severity claims experience.

Some specific scenarios repeatedly surfaced as “front-of-mind” examples during interviews. These were not necessarily the most severe losses historically, but rather the types of incidents that create uncertainty, dispute, or disproportionate complexity relative to their initial scale.

Examples Included:

- Surface staining of exposed Mass Timber elements, particularly where architectural-grade finishes are specified. Insurers questioned what degree of staining is considered tolerable, how effectively it can be remediated without material replacement, and whether owners will ultimately accept repaired elements from both structural and aesthetic standpoints.
- Water ingress through penetrations and interfaces, including plumbing, mechanical, and envelope penetrations. Concern was expressed about water migrating into concealed assemblies (e.g. acoustic insulation layers) or becoming entrapped beneath concrete toppings, where detection, drying, and verification can be intrusive, time-consuming, and uncertain.
- Moisture entrapped beneath roofing membranes, particularly bitumen-based systems, where delayed detection can allow prolonged exposure and create uncertainty around concealed damage.
- Water exposure to staged or stored materials on site, including Mass Timber elements awaiting installation. Even when exposure is brief, insurers noted uncertainty around moisture content thresholds, required drying protocols, and long-term performance implications.

Across these examples, the underlying concern was not solely the presence of water, but the difficulty of confidently determining the extent of impact, the adequacy of remediation, and the likelihood of owner acceptance. These uncertainties elevate perceived severity and contribute to conservative underwriting assumptions, even in situations where structural performance may ultimately remain uncompromised.

Repairability and Acceptance Uncertainty

A critical area of uncertainty relates to how Mass Timber elements are repaired following water or fire exposure, and whether those repairs are ultimately acceptable to owners. Insurers cited multiple contributing factors, including:

- Limited market experience with standardized repair methodologies;
- Labor-intensive investigative processes (e.g., moisture probing, topper removal, selective demolition);
- A lack of shared repair guidance for claims adjusters and contractors;
- A lack of belief that theoretical repair techniques will work in complex construction environments; and
- A prevailing view that Mass Timber repairs are more costly than comparable non-combustible construction.

Additional uncertainty arises from supply chain fragility, including long lead times for specialized or custom-fabricated timber components, which can materially affect repair duration and loss severity.

Contractor Experience and Maturity as a Risk Driver

Insurers consistently identified contractor experience and organizational maturity as a leading determinant of construction-stage loss outcomes. Several participants referenced “contractor hubris” (defined as underestimating the specific handling, sequencing, and protection requirements of Mass Timber) as a recurring contributor to avoidable incidents.

In contrast, experienced contractors with established moisture management plans, clear decision thresholds, and documented response protocols were viewed as materially lower risk, even when incidents occurred.

Severity Anchoring and Cognitive Bias

Underwriter perception is heavily influenced by recent, high-severity claims that remain top-of-mind. These losses anchor risk perception and reinforce conservative assumptions, particularly in the absence of countervailing data that demonstrates how risks are routinely managed and contained. This anchoring effect was repeatedly identified as a barrier to more nuanced risk differentiation.

Structural Limits of Actuarial Data

Participants were nearly unanimous that current loss volumes are insufficient to support traditional actuarial modeling, particularly within the timeline contemplated for this feasibility study. In the near term, enhanced data-sharing is therefore more likely to inform risk engineering judgment and underwriting decision-making than to directly influence pricing or actuarial rate development.

Implications of Subscription-Based Insurance Structures

Large Mass Timber projects are typically insured on a subscription basis, with multiple carriers sharing risk across a single project. As a result, several insurers already participate in and have visibility into most major claims across the sector.

As most buildings are insured through subscription structures and the overall number of claims remains limited, major carriers already hold partial, internalized views of the sector's complete loss experience. In effect, leading insurers maintain their own siloed versions of a claims data trust, built through participation (i.e. offering capacity) rather than formal data sharing.

The presence of these parallel data sets suggest that sharing data alone is unlikely to materially shift underwriting behavior or capacity deployment among major carriers at present. However, if insurance capacity were to expand to the point where smaller subscriptions shares became viable, enhanced data sharing could deliver greater value by improving visibility for participants with less direct loss exposure. At present, however, the value proposition for a broader sharing framework alone does not appear persuasive enough to justify the required investment.

The Value of Below-Deductible Incident Data

Underwriters consistently noted a lack of visibility into below-deductible incidents. While these events do not affect paid loss statistics, insurers emphasized that understanding their frequency, management, and the factors that prevent escalation is of high interest. This type of data was repeatedly identified as both currently unavailable and potentially valuable, with several insurers noting that it could serve as a near-term bridge to partially address the existing data gap.

This data could also help address perceived risks associated with Mass Timber among underwriters who may only be exposed to incidents that result in catastrophic losses. Visibility into below-deductible events would clarify how risks are mitigated in practice and reduce the number of “unknown unknowns” currently shaping underwriting perceptions

EARLY CONCLUSIONS & PIVOT TO CONTRACTOR CASE STUDIES

Early engagement with insurers and industry participants revealed several critical insights that materially shaped the direction of the feasibility study.

First, formal insurance claims data alone is insufficient to address insurers' most pressing questions about Mass Timber construction risk in the near term. Moreover, the current pace of claims accumulation suggests that volumes will remain too low to materially influence pricing outcomes over the next 5–10 years, even if data were broadly shared. Existing claims experience is limited in scale, disproportionately skewed toward severe losses, and largely already exists within insurer-specific data silos among carriers already active in the Mass Timber market.

Second, insurers consistently noted that many of the most consequential risk management actions undertaken by contractors occur below deductible thresholds and therefore sit outside existing underwriting and claims feedback loops. As a result, a significant portion of contractor experience, decision-making, and loss prevention activity is effectively invisible to insurers. This type of data was routinely surfaced by insurers as a source of information that insurers wanted, and something that could potentially function and a short-term bridge for the current data gap.

In practice, contractors routinely identify, assess, and remediate moisture events, material exposure, and other construction-stage damage before losses reach deductible thresholds or trigger insurance involvement. These interventions represent a meaningful share of the real risk environment on active Mass Timber projects, yet they are largely absent from current insurance data frameworks.

In response, the task group pivoted toward exploring the feasibility of collecting below-deductible, contractor-supplied case study data, and assessing whether such information could:

- Reduce reliance on generalized worst-case assumptions during underwriting; and
- Support confidence-based risk selection and contractor differentiation over time.

This pivot reframed the feasibility study from an effort to generate immediate actuarial inputs toward an examination of whether improved visibility into below-deductible mitigation and repair outcomes could drive positive outcomes in the near term.

Importantly, this approach was viewed as a pragmatic near-term pathway that could deliver value within existing market constraints, while also laying the groundwork for more robust, standardized, and trusted data-sharing frameworks in the longer term to meet actuarial modelling data needs.

BELOW DEDUCTIBLE CASE STUDIES

Consultations with insurers revealed a consistent theme: while the industry lacks the high-volume loss data required for traditional actuarial modeling, greater visibility into below-deductible incidents and their mitigation outcomes could serve as a critical short-term bridge across the current data gap. Importantly, the case studies also demonstrate the practical repairability of Mass Timber elements and provide evidence of how timely intervention and established controls prevent minor incidents from escalating into insured claims.

In response, the Task Group identified targeted contractor case studies as the most actionable near-term mechanism for capturing this information. These case studies document real-world incidents, contractor responses, repair outcomes, and technical lessons learned, providing the operational context that traditional claims data does not capture.

METHODOLOGY

To move from concept to implementation, the Task Group developed a General Contractor - Insurer Data Trust Prototype to assess the feasibility of extracting, aggregating and structuring internal contractor data. The pilot followed a five-stage engagement framework.

1. Risk Alignment & Gap Analysis
2. Contractor Value Proposition
3. Data Gathering
4. Prototype Case Studies
5. Insurer Feedback

Risk Alignment & Gap Analysis:

A shortlist of experienced Mass Timber contractors was engaged to discuss the vulnerabilities and risks most commonly encountered during construction, how those situations typically arise, and how they are managed and mitigated on site.

These contractor perspectives were then compared with the loss drivers, uncertainties, and concerns most frequently raised by insurers during earlier consultations. This step helped identify areas of alignment, as well as gaps where contractor experience was not visible or well understood by insurers.

Contractor Value Proposition:

Contractors were invited to participate in a pilot designed to test the hypothesis that sharing anonymized, below-deductible incident data could help re-anchor underwriting and risk engineering perspectives, shifting focus from hypothetical worst-case scenarios toward observed, real-world outcomes (see Appendix B – Contractor Value Proposition Presentation). As part of this process, the Task Group worked with contractors to understand:

- What incident-related data already exists;
- In what formats that data is maintained; and
- What practical sources could be used where structured data did not yet exist (e.g., emails, site logs, photographs, construction management software).

This step was critical in assessing what information could realistically be provided at scale without imposing excessive administrative burden.

Data Gathering:

Participating contractors were provided with a standardized template and fictionalized sample submission designed to capture real-world below-deductible incidents (see Appendix C – Sample Fictionalized Case Study). The template was structured to capture both quantitative and qualitative information, including:

- Project context (size, type, construction stage);
- Description of the incident and suspected root cause;
- Mitigation and response measures taken;
- Direct costs and schedule or sequencing impacts incurred; and
- Lessons learned and changes to practice.

Prototype Case Studies:

A subset of contractors voluntarily and anonymously provided a total of five prototype case studies. Each described a construction-stage incident and the associated mitigation outcomes. The case studies reflected a range of real-world conditions, including:

- Routine moisture events addressed through established moisture-management procedures;
- Unanticipated triggers requiring rapid on-site intervention; and
- More complex situations requiring intensive drying and dehumidification under formal moisture-management plans to avoid material replacement, prevent mold, and meet owner acceptance criteria.

The intent of these case studies was not to minimize the inherent risks of Mass Timber, nor to be statistically representative of industry-wide loss experience, nor to address low-frequency, high-severity events. Rather, the objective was to demonstrate:

- The types of below-deductible incidents that occur during Mass Timber construction;
- How contractors manage them in practice; and
- The type, volume, and format of data that can reasonably be collected under current conditions.

Insurer Feedback:

The prototype case studies were then presented to senior underwriters, risk engineers, and brokers, and feedback was gathered through a structured online survey. The purpose of this step was to:

- Demonstrate concrete examples of what contractors can realistically provide, and validate whether the information captured aligned with insurer needs;
- Assess how such data might be used in underwriting, risk engineering, and portfolio strategy; and
- Test whether scaling this approach could support the broader objectives of the proposed data trust, including improved underwriting confidence, reduced uncertainty-driven conservatism, and increased capacity over time.

EFFORT & PRACTICAL CONSTRAINTS

The prototype provided several critical feasibility findings regarding the cost of collection and the barriers to participation:

Collection Burden Vs. Underwriting Value:

- The pilot confirmed a significant disconnect between the level of detail insurers find useful (e.g., remediation timelines, costs, verification methods, decision thresholds) and the limited information that is currently routinely captured, stored and reported by contractors in a format that is useful to insurers.
- Relevant information is currently distributed across site records, photographs, emails, and informal logs rather than stored in standardized systems. Compiling case studies therefore requires meaningful manual effort by contractor teams.

Participation Barriers:

- Legal, reputational, and competitive sensitivities emerged as a primary barrier to participation. Despite outreach to more than six contractors, only two were able to contribute case studies during the pilot phase.
- Contractors expressed hesitation to share project-identifiable data without robust safeguards and a credible pathway to value.

INSURER ENGAGEMENT FEEDBACK

Engagement Approach

Once developed, the contractor case studies were shared with a cross-section of underwriting, risk engineering, and portfolio strategy professionals. The intent was to test the case studies directly against insurers' stated needs, rather than assume their relevance or potential impact on underwriting outcomes or pricing. Insurers were explicitly asked to consider how their views might change if a materially larger and more consistent set of such case studies were available, and to assess:

- Whether the case studies reflected situations they recognize;
- Whether the information provided was useful or actionable;
- How, if at all, such data could influence underwriting, pricing, capacity, or risk engineering decisions;
- What additional data would be required to increase usefulness; and
- Whether scaling this approach could materially change outcomes over time.

SUMMARY OF INSURER RESPONSES

A total of seven responses were received, spanning both insurers and brokers and reflecting perspectives from underwriting, risk engineering, and related technical functions. Several participating organizations consulted widely with internal teams in developing their responses, indicating that the feedback reflects cross-functional review rather than individual viewpoints.

Respondents engaged thoughtfully and critically with the prototype, treating it as exploratory evidence of what could be possible rather than a finalized solution. The tone was constructive and grounded in practical considerations, even where feedback was challenging or cautious. Many responses were highly detailed and technical, demonstrating meaningful effort to assess real-world implications, implementation considerations, and potential value.

Insurer feedback was notably consistent across organizations on several factors. Insurers strongly agreed that the case studies are useful for factors such as underwriting confidence, risk selection, and risk engineering context. Repeated themes included:

- Improved understanding of how moisture and water risks actually manifest on site;
- Greater transparency around contractor experience and decision-making;
- Reduced need to assume worst-case outcomes in the absence of information; and
- Better ability to differentiate between contractors, project types, and control environments.
- Proof that repairs can be completed and accepted by site owners.

Several insurers noted that while the dollar value of the incidents was not persuasive in isolation, the reasons the incidents remained small were highly relevant. Information about monitoring systems, enclosure strategies, response timing, and contractor thresholds for action was consistently cited as valuable.

Insurers also emphasized that the credibility of this approach depends on volume, consistency, and standardization. A small number of case studies can inform discussion, but a larger, structured dataset is required to support meaningful pattern recognition and confidence-based differentiation.

However, insurers were clear that below-deductible case studies alone are unlikely to directly reduce rates or unlock capacity. Pricing and capacity decisions remain anchored to severity risk, portfolio considerations, and internal loss experience. Insurers near universally responded that small incidents that do not become claims are generally expected and are very unlikely to materially influence actuarial models.

Variables of Interest

Insurers indicated that the overall type of information presented was helpful and necessary to support their understanding of Mass Timber construction risks.

Key variables of interest included:

- Loss type and incident description;
- Project size, type, and geographic location;
- Construction stage at time of loss;
- Direct costs and schedule impacts;
- Repair or replacement scope;
- Manufacturing or procurement timelines for replacement components; and
- Lessons learned and preventive practices.

Insurers also expressed interest in additional contextual and technical information, including:

- Clarity on who ultimately bore the cost (e.g., owner-approved change orders, contractor-absorbed costs affecting margin, or pass-through to trades or suppliers);
- Optional supporting materials such as photographs, weather data, sensor outputs, or moisture content readings;
- Specific information on aesthetic outcomes and owner acceptance; and
- More detailed forensic or engineering context where available.

Finally, insurers consistently identified fire-related incidents as a significant information gap. While fire remains a dominant severity concern in underwriting, participants noted the lack of data on fire events, or incidents involving smoke damage or odour removal. Crucially, insurers remained skeptical that a current lack of fire claims accurately reflected the future frequency of losses; they viewed the absence of data as a blind spot rather than an indication of low risk.

Insurers also expressed interest in a broader range of water-loss scenarios, including non-weather-related water releases (e.g., plumbing or fire suppression system failures) and incidents occurring at later stages of construction, such as interior finishing.

IMPLICATIONS FOR THE FEASIBILITY STUDY

Insurer feedback provides important clarity on the realistic role and limitations of both below-deductible case studies and a broader Mass Timber Insurance Data Trust. While such data is unlikely to directly or immediately influence pricing or unlock capacity, insurers consistently indicated that it could meaningfully affect underwriting behavior over time by improving confidence, reducing uncertainty, and supporting more informed risk differentiation.

What a Below-Deductible Data Trust Can Realistically Enable

A well-designed Data Trust has the potential to:

- Standardize visibility into construction-stage risk management practices and controls;
- Support contractor differentiation by evidencing demonstrated risk-mitigation maturity;
- Reduce uncertainty-driven conservatism by replacing anecdotal assumptions with empirical patterns; and
- Inform underwriting assumptions earlier in the project lifecycle, particularly during risk selection and structuring.

What It Cannot Achieve in Isolation

Insurers were equally clear on what such an initiative cannot do on its own:

- Instantly reduce insurance rates, which require historical loss validation over time;
- Replace insurers' internal loss experience or actuarial severity models, which remain foundational to pricing; or
- Mandate application of capacity, as individual insurers will continue to apply their own risk appetites and portfolio constraints.

PRACTICAL CONDITIONS FOR SUCCESS

The assessment confirms that the effectiveness of sharing contractor supplied below-deductible data depends on addressing two critical practical requirements.

Data Must Reach Sufficient Scale and Credibility

For shared data to influence underwriting behavior, it must achieve sufficient volume, consistency, and neutrality to enable cross-project and cross-contractor comparison. Small or fragmented datasets may support dialogue, but only a structured, standardized, and durable data asset can support confidence-based differentiation at scale.

Contractor Participation Must be Practically Viable

Data collection currently requires meaningful manual effort from Contractors. As a result, participation is difficult to sustain without a clear line of sight to value.

Conversely, insurers observed that while contractors often look for a direct correlation between risk mitigation efforts and insurance savings, meaningful change is more likely when risk mitigation is understood as improving the quality of the asset and the quality of risk, rather than as a transactional lever for near-term premium relief. From an insurer perspective, the primary return is not short-term premium reduction, but improved insurability through better risk visibility and confidence in risk controls.

Accordingly, this study finds that participation is most likely to scale when contractors can reasonably expect their demonstrated practices to be recognized over time through impacts such as improved underwriting confidence, clearer differentiation, and greater certainty around insurability, rather than through immediate or guaranteed pricing outcomes.

Taken together, this study indicates that insurers and contractors are not currently aligned in terms of incentives required to share this kind of data at scale. Rather, insurer feedback suggests that a Mass Timber Insurance Data Trust should be viewed not as a mechanism to directly lower premiums, but as foundational infrastructure: one that improves risk visibility, supports contractor differentiation over time, and helps create the conditions under which broader availability, stability, and pricing improvements may eventually emerge. This framing acknowledges both perspectives and offers a credible pathway toward improved alignment over time.

CONCLUSIONS

This feasibility study assessed whether improved sharing of claims and loss-related data across insurers could reduce insurance-driven barriers to Mass Timber construction in Canada. Participants were nearly unanimous that even if shared, current loss volumes are insufficient to support traditional actuarial modeling, particularly within the timeline contemplated for this feasibility study.

Further, the current subscription-based insurance structures for large Mass Timber projects means that several large insurers already participate in and have visibility into most major claims across the sector. The presence of these existing parallel data silos underscores that sharing existing data alone is unlikely to materially alter underwriting behavior or capacity deployment in the near term.

Below-Deductible Incident Data

In response to these findings, the task group explored the feasibility of incorporating novel data sources. A pilot project with Prototype Case Studies confirmed that contractor-supplied, below-deductible incident data can partially close the identified data gap.

By improving transparency around contractor practices and on-site risk management, a well-designed Data Trust can play a practical enabling role in reducing uncertainty and supporting more nuanced risk engineering. However, these case studies alone are insufficient to shift pricing or unlock meaningful new capacity in the near term. In addition, broad contractor participation remains difficult without clearer incentives and careful consideration of legal, reputational, and competitive sensitivities.

Mass Timber Data Trust

Insurer interviews reinforced that traditional claims data (whether shared or centralized) cannot independently drive pricing or capacity change in the near term. Loss volumes remain limited, heavily skewed toward high-severity outcomes, and too fragmented to support conventional actuarial approaches. As a result, expectations that data sharing alone will directly or immediately reduce rates are not supported by current market realities.

To unlock meaningful growth and broader adoption of Mass Timber in Canada, data-driven insights must therefore be paired with complementary mechanisms that address early-stage risk and market confidence.

Alignment with Other Task Groups

The study indicates that the greatest value of a Data Trust emerges when it is explicitly aligned with parallel initiatives under the broader **Mass Timber Insurance Action Plan**. Examples include:

- Linking participation or data contribution requirements to alternative risk-transfer or capacity structures, or contractor verification frameworks; and
- Using the contractor-supplied data to inform parallel research streams, particularly those focused on repairability, moisture tolerance, and acceptable remediation outcomes.

Viewed in this context, the Data Trust is best understood not as a single solution, but as enabling infrastructure that supports learning, feedback, and confidence-building across the interface between insurers and contractors.

Final Implications

In the absence of a structured mechanism to surface how Mass Timber risks are routinely managed, mitigated, and contained at the site level, conservative assumptions will continue to dominate underwriting decisions. This, in turn, will constrain available capacity, elevate costs, and slow the adoption of Mass Timber across the Canadian building sector.

At present, contractors and insurers are not aligned on the incentives required to support meaningful data sharing at scale. The level of effort, real or perceived liability exposure, and competitive sensitivity associated with contractor-supplied data is not matched by near-term underwriting or pricing benefits. As a result, a standalone, Data Trust between insurers and contractors is unlikely to be viable under current market conditions.

Bridging this gap requires reframing the role of the Data Trust. Rather than positioning it as a direct lever for premium reduction, it should be treated as enabling infrastructure that supports learning, differentiation, and confidence-building over time. To be effective, it must also be implemented alongside complementary mechanisms that address early-stage risk and participation barriers.

When aligned with public-sector support, targeted research initiatives, contractor verification or differentiation frameworks, and alternative financing or risk-sharing mechanisms, a credible Mass Timber Data Trust can play a practical role in improving risk visibility, strengthening insurability, and creating the conditions under which capacity, stability, and pricing improvements may ultimately emerge.